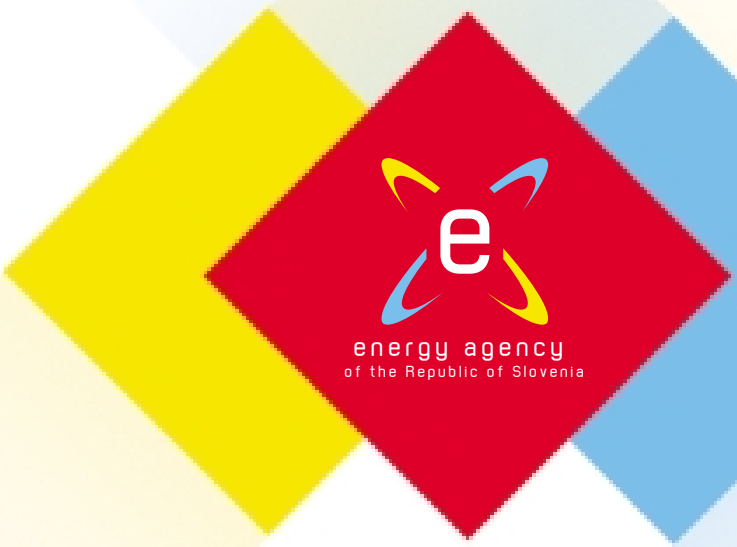


Report

on the Work of the Energy Agency
of the Republic of Slovenia and
the Situation in the Energy Sector in

2002

Minister
Janez Kopač, M.Econ.
Ministry of the Environment, Spatial Planning and Energy

The Republic of Slovenia has taken its first steps to liberalise the electricity market and adopt a regulatory framework. The Energy Agency of the Republic of Slovenia has set the prices for the use of networks, which will stabilize the income of electric-power transmission and distribution companies. This income is expected to result in investments, which will increase the reliability and the quality of the power supply. The government has set an increase in power-supply quality and reliability as a long-term goal in the Ordinance regarding the general requirements for the supply and consumption of electricity, and the Energy Agency is expected to provide support by implementing the mechanism for verifying the eligibility of costs of the power-transmission and distribution companies.

Regarding the Agency's second annual report, which gives a factual review of the situation in the energy sector and presents the Agency's work in 2002, we come across a new EU directive, which will be introduced into Slovenia's legislation. An important new feature that emerges from it is the fact that the Agency's tasks and powers may be substantially increased. On this occasion, I would like to stress that the Agency's capacity to perform additional tasks can be proven only by its actions, professionalism and dedicated work.

I also wish to use this opportunity to encourage a reconsideration of some well-known past events that exposed the disadvantages of an excessively market-oriented and purely economic approach to the electricity market. In order to avoid negative foreign experiences, everybody should contribute towards the sustainable provision of reliable and high-quality electricity supply in their own specific field. Thus, the Ministry of the Environment, Spatial Planning and Energy has prepared the National Energy Programme, presenting our views on how to ensure a high-quality and reliable supply of energy in the long term.

Director
Prof. Dr. **Jože Koprivnikar**,
Energy Agency of the RS

This time we again have two reports included in the same publication, one on the situation in the energy sector and the other on the work of the Energy Agency of the Republic of Slovenia in 2002. The latter describes the second year of operation of the Slovenian electricity and natural-gas market regulator. Although 2002 was not as remarkable as 2001, which was even referred to as historic, as it marked the beginning of the electricity-market liberalisation, it was very important in terms of professional achievements.

One of the most important tasks of the Agency in 2002 was drafting the methodology for economic regulation of public transmission and distribution companies. The price-list for the use of electric-power networks is based on a three-year regulatory period and guarantees a balanced development of these networks.

While preparing the methodology and the price-list, we kept in mind our task of providing a high-quality and reliable electricity supply. This cannot be ensured only with an efficient and modern distribution network, it also requires new production capacities. Slovenia is striving to increase its use of renewable energy sources and its new production capacities. Without this it is impossible to meet the electricity demand, which became evident from certain developments and events in 2002.

The Agency also participated in developing and implementing other market mechanisms by preparing expert opinions and participating in the adoption of various executive regulations. In 2002 the liberalisation of the electricity market in Slovenia made it possible for eligible customers to choose their own electricity operators, but this opportunity has not been used by as many customers as expected. The answer to the question of why this is so, will probably be useful in directing the Agency's operations and endeavours.

In the past year the majority of our activities targeted electric energy. However, an important step was made in the natural-gas sector, which contributed to the realisation of the first stage of the natural-gas market liberalisation at the beginning of 2003.

In our work we took into account general principles on regulatory control, used by the Council of European Energy Regulators (CEER), and took part in international associations in the energy sector. Our underlying desire was that solid foundations for our integration into the common energy market should be laid by the time of Slovenia's accession to the European Union.

In implementing our mission in 2002, we also aimed for the closest possible and most constructive cooperation with the representatives of professional circles in making important decisions. I firmly believe that our consideration of different opinions made it possible to prepare good documents. I sincerely thank all who helped us for their cooperation and the trouble they took. In the past year we were also pleased by numerous favourable assessments of our activities received from the participants of our workshops as well as the representatives of institutions monitoring European regulators' actions. The scope and demand level of our activities are still increasing. Bearing this in mind, the staff of the Energy Agency of the Republic of Slovenia are carefully preparing for new challenges.

Contents

1 INTRODUCTION

The supply reliability, 66% of the electricity-market liberalisation as well as the price effects, mainly gradual price changes, indicate a proper progress in the field of electricity despite the many troubles and obstacles that Slovenia has encountered during the process of liberalising and opening up its energy market.

2002 was the second year of electricity-market liberalisation and the year when preparations began for the planned liberalisation of the natural-gas market in 2003. Both activities proceeded without any major setbacks.

Apart from an increased consumption of electricity, 2002 also saw a change in the structure of this consumption, with the amount of electricity consumed every month changing too. However, the reliability of the supply to customers was not threatened. An increased demand for electricity during the summer months, which has been known in many countries of the European Union for quite some time, is now being observed in Slovenia, albeit with a delay. This fact will certainly have to be taken into account in future plans for the electricity demands and resources. In the past year no major power-producing facilities were built in Slovenia. Nevertheless, new power-production facilities will have to take account of ecological concerns. The trends in 2002 show that both, the expert and public, ecological consciousness increased and that ecology will become an important aspect of Slovenia's energy policy.

The capacities of the transmission and distribution network represent the real and potential limiting factors in terms of service reliability and the quality of supply or in terms of electricity cross-order trading. Technologically suitable, well-maintained and optimally located networks are vitally important for achieving the basic aims in the field of the customer supply and achieving other plans in the process of market liberalisation. Ideas about building the so-called commercial cross-border interconnections with the networks of the neighbouring countries were already under consideration in 2002. The project is close to realisation, but needs further consideration from the legal and technological points of view as soon as possible.

In 2002 the distribution companies invested in their transmission and distribution networks in accordance with their economic plans. The proposed development plans of the transmission and distributing companies were considered as the basis for the investments in the preparation of the regulatory framework for 2003-2005, which were prepared and put into force by the agency. The agency also prepared the starting points for tracing the quality of the electricity supply within the first regulatory period. In the period 2003-2005 the quality of the electricity supply will not yet directly influence the network charge, although the demands for the electricity-supply quality are determined according to its minimum level. The improvement of the electricity-supply quality is also the criterion for considering the suitability of the investments of the regulated companies.

The regulated companies that deal with the distribution of electricity finished the fiscal year 2002 with a loss, mainly related to the supply of tariff customers. In the preparation of the regulatory framework for the period 2003-2005 the agency has proposed an annual increase in the electricity price for the tariff customers, without this increase, with the supply prices remaining unchanged, the losses of the distributors will continue to grow. It will also be necessary to think about lowering

the purchase prices of the electricity for selling to the tariff customers. The desired results can only be achieved by applying both these measures. Keeping the prices for the tariff customers constant, in compliance with government regulations, also has a negative influence on the regulation of the charges for using the networks. Furthermore, it forces companies to transfer the money between different services. Such activities may be found by the agency when tracing the execution of the regulatory framework. After all, the maintenance of constant prices also negatively influences the value of the distribution companies. Regarding the question of the level of the electricity price for the tariff customers, two incompatible requirements are always confronted: on one hand, the demand for the introduction of market mechanisms; and on the other, the requirement to control inflationary pressures.

In 2002 the government placed limits on the quantity of the cross-border transfer of the electricity. At the end of December the transmission-system operator made an agreement with the Italian network operator relating to the assignment of additional cross-border transmission capacities for 2003. This cross-border trading will have an important influence on the electricity market – and electricity prices in Slovenia – if or when the mechanism for assigning the cross-border transmission capacities is changed. This will almost certainly happen, as the European Commission insists on the application of free-market rules for the assigning of cross-border transmission capacities in the future.

The amount of natural gas consumed in Slovenia is increasing. Geoplin, a transmission company, sold 998 million standard cubic meters of natural gas last year. A natural-gas market did not exist in Slovenia in 2002 and the competences of the agency were relatively limited in this field. As a result of the legislative demand according to which the first phase of market liberalisation has to be completed by 1 January 2003, the companies prepared themselves for the new conditions. The transmission company responsible for the transmission of natural gas and operating the transmission system got prepared for the separate accounting of its services in 2003. The transmission company was not regulated by the agency in 2002 and, in contrast to the case of electricity, the energy law does not propose any such regulation in the future. Therefore, the report does not provide detailed data on the ownership structure and management of the transmission company. The new directions within EU result in changes to the competences of the regulatory bodies in individual countries. This means that also in Slovenia modified regulations will enable a third party to access the network on a regulated basis.

A tariff system for the supply and sale of natural gas from the transmission network, published in 2001 in agreement with the government by the transmission company, was applied in 2002. The distribution companies run their business as optional local economic public services, the activities of which are regulated by local communities. Some of the distribution companies will have the status of eligible customer after the liberalisation of the market for natural gas. The energy law directly influences their business only with the provision relating to the necessity to obtain the required license and the demand regarding the required division of the energy-related activities on 1 January 2003. The distribution companies have made strenuous efforts to maintain their positions in the market during the last year because many local communities chose new distributors or made arrangements for concessions. The renovation or construction of new distribution-pipeline networks were also connected with these activities.

1.1 Basic facts for 2002

Slovenia		
Population	1,964,036	
Area	20,273 km^2	
Number of households	685,023	
Gross domestic product (GDP)	5,284,501 mil SIT	23,359 mil EUR
Inflation	7.5%	
Average exchange rate SIT/EUR	226.22 SIT/EUR	
GDP/person	2,691 mil SIT	11,894 EUR

Electricity

Peak capacity	**2,762 MW**
• Hydropower	• 830 MW
• Thermal power	• 1,262 MW
• Nuclear power	• 670 MW
Production of electricity	**13,012 GWh**
• Hydropower	• 2,991 GWh
• Thermal power	• 4,719 GWh
• Nuclear power	• 5,302 GWh
Total transmission-line length	**2,594 km**
Electricity consumption	**11,315 GWh**
• Direct customers	• 2,575 GWh
• Eligible customers	• 5,080 GWh
• Tariff customers	• 3,660 GWh
Annual consumption per person	**5,761 kWh**
Average household consumption of electricity per month	**293 kWh**

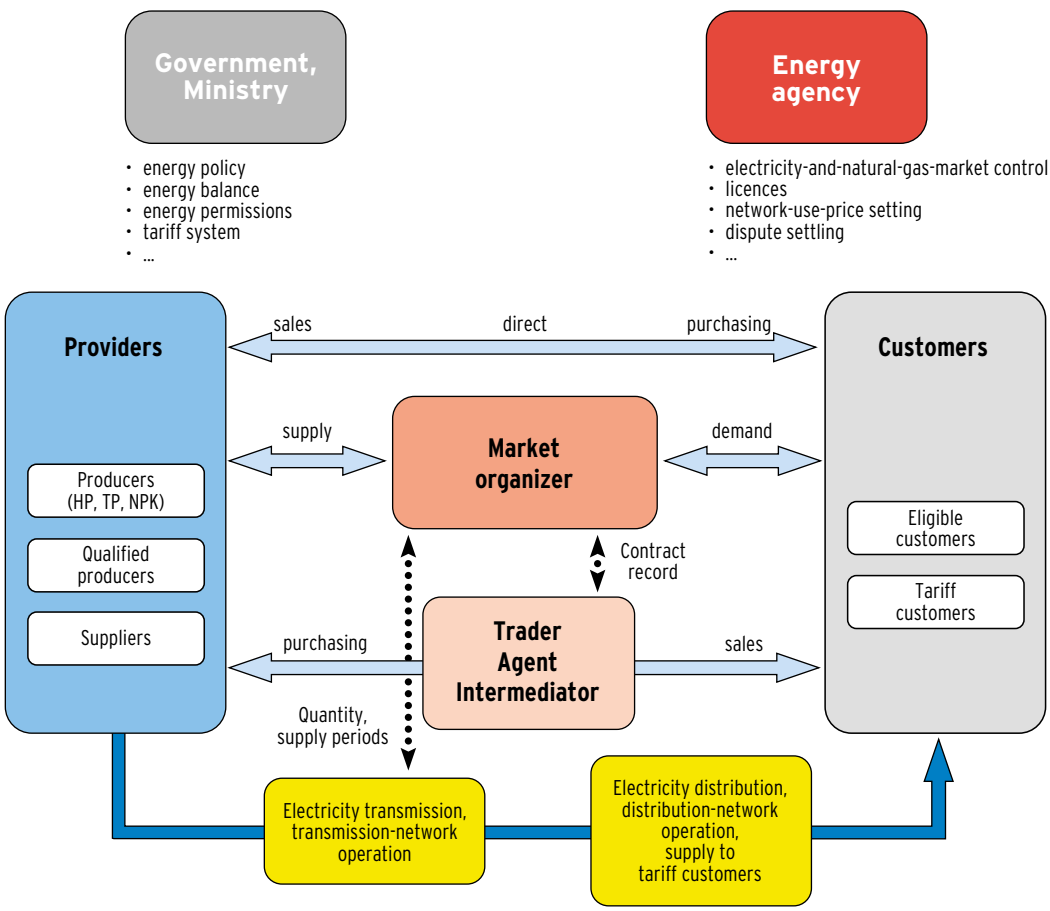


Figure 1: Relationships between the participants in the electricity market

Natural gas

Transmission lines	960 km
Natural-gas consumption	998,683,000 Sm^3
Annual consumption per person	508 Sm^3

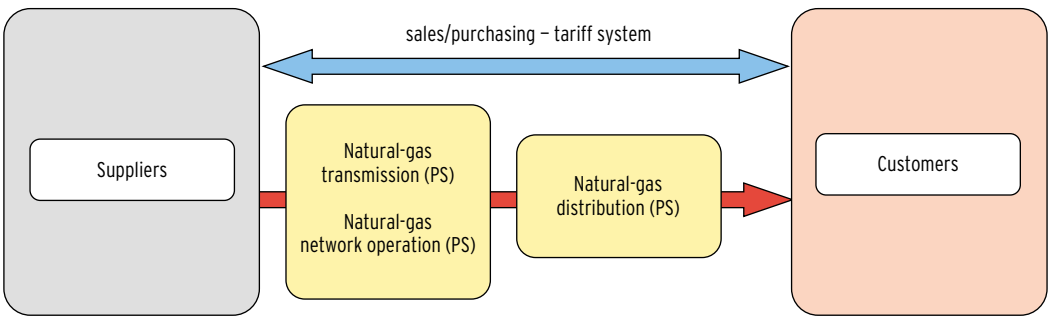


Figure 2: *Relationships between the participants in terms of natural-gas supply*

2 ELECTRICITY MARKET

2.1 Electric-power system

Hence, in 2002 the energy activities were, for the first time, consistent with the Energy Law.

The electric-power system (EPS) of the Republic of Slovenia consists of the companies for producing, transmitting and distributing electrical power. The deregulation of the electric-power sector primarily made a distinction between the production, transmission and distribution activities. During this process the companies, which had so far provided services (the transmission and distribution of electricity) as monopolies, divided the accounts of their market and regulated activities according to the Energy Law (EL).

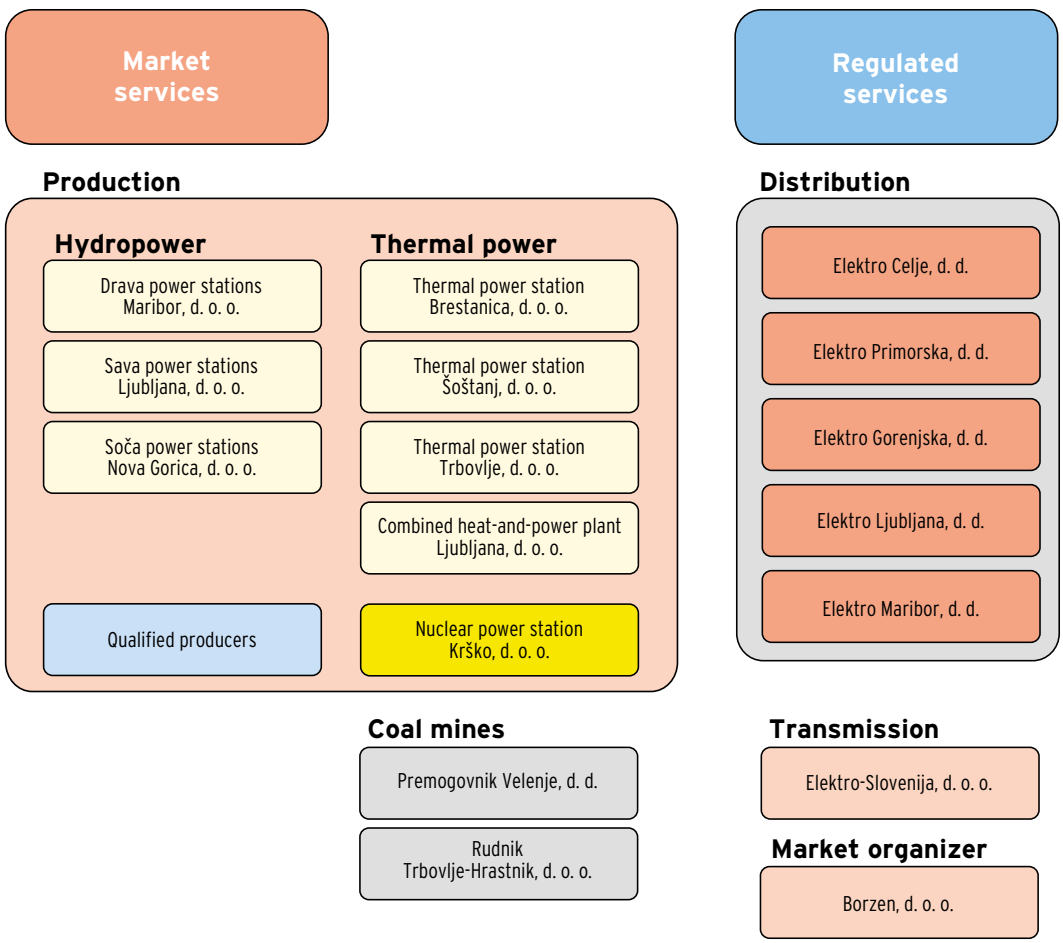


Figure 3: *The electric-power system of the Republic of Slovenia*

2.1.1 Electricity production

The electricity in Slovenia is mainly produced my means of the following: hydropower; thermal power based on the coal, fluid and gas fuels; and nuclear power. An important fraction of the thermal-power stations is represented by those facilities that cogenerate heat and electricity.

In Slovenia there are eight companies dealing with the production of electricity in the system. The corresponding, large power stations are:

- Drava power stations Maribor (DPSM),
- Sava power stations Ljubljana (SPSL),
- Soča power stations Nova Gorica (SPSNG),
- Nuclear power station Krško (NPSK),
- Thermal power station Šoštanj (TPSŠ),
- Thermal power station Trbovlje (TPST),
- Combined heat-and-power plant Ljubljana (CHPL),
- Thermal power station Brestanica (TPSB).

Three companies (DPSM, SPSL and SPSNG) produce electricity from hydropower stations, one (NPSK) from a nuclear power station, two (TPSŠ and TPST) from thermal power stations based on coal, one (CHPL) produces heat and electricity, and one (TPSB) produces electricity from liquid and gas fuels. The companies DPSM, SPSL, SPSNG, TPSŠ and TPSB, together with the Velenje coalmine, have run their businesses within the framework of Holding Slovenske elektrarne (HSE) since the summer of 2001.

The total amount of electricity produced in 2002 at the nuclear power station Krško (676 MW) was owned by Slovenia. The Republic of Croatia and the Republic of Slovenia have equal shares in the Nuclear power station Krško, therefore until 1998 one half of the electricity produced was available to the Republic of Croatia. At the end of 2001 it was planned that after 1 July 2002 one half of the electricity produced would again belong to Croatia, but negotiations with Croatia were delayed, and the agreement was not made until 2003.

Besides the so-called system production in the large power stations, Slovenia also has some smaller production levels in power stations that are connected to the distribution network. Two types of such production are important in Slovenia: the production in small hydropower stations and the production in industrial facilities for the cogeneration of heat and electricity. The small hydropower stations are owned either by distribution companies or by private owners. The production of electricity is often a peripheral activity. Industrial companies own the industrial cogeneration plants to cover their needs for the heat and partly electricity, while they sell any extra electricity to other consumers.

According to the EL, facilities for producing small amounts of electricity, up to 10 MW, can be registered as qualified producers and they are allowed to sell the electricity produced for subsidised prices, which are known in advance. This stimulates development and investments in such facilities.

The production and supply of electricity qualify as market activities according to the provisions of the EL.

2.1.1.1 The qualified production of electricity

The EL defines the qualified production of electricity as production from renewable sources and wastes, produced in power stations with an extraordinarily effective use of fossil fuels, mainly achieved by the cogeneration of heat and electricity. Already in 1996 the National Assembly of the Republic of Slovenia passed a resolution relating to the strategy for the use and supply of electricity. According to this resolution the amount of electricity produced in qualified power stations should increase by a factor of 2 by 2010. This aim is similar to the EU directive 2001/77/EC of 27 September 2001 that relates to stimulating the production of electricity from renewable sources.

In 2002 the small hydropower stations provided the largest contribution in terms of electricity from renewable sources in Slovenia. With respect to the amount of electricity produced they are followed by producers from heating stations based on bio-mass and the producers from industrial heating stations. In 2002 the total amount of electricity from qualified production was 2.1% of the total amount of electricity produced in Slovenia, which means 273 GWh. Expert bodies have estimated that qualified production from renewable sources will be able to provide 485 GWh of electricity by 2010.

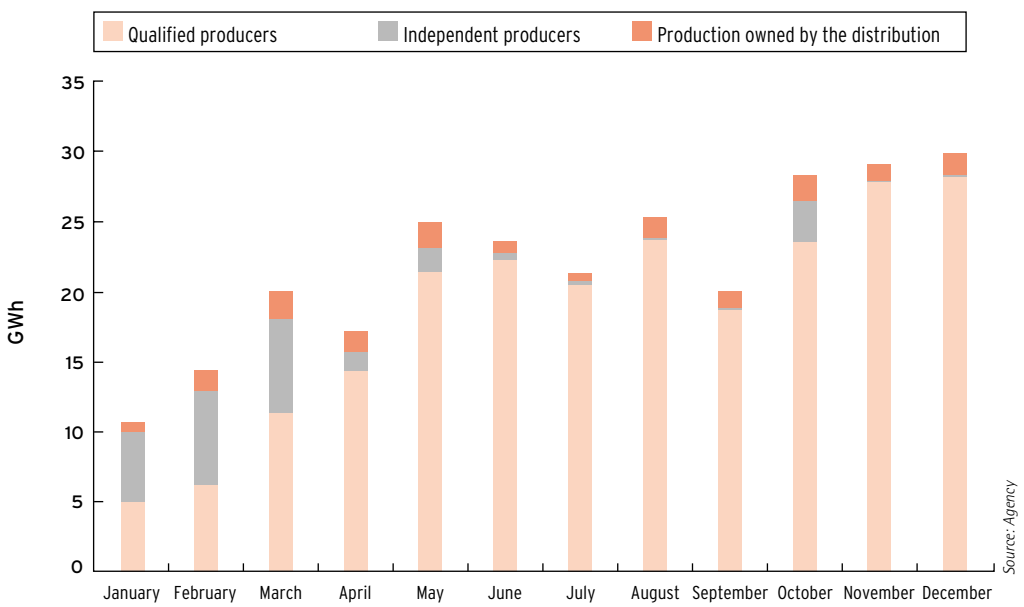


Figure 4: *Monthly production of qualified producers in 2002*

The Government of the RS administratively sets the selling prices for all types of qualified producers at least once a year. The prices are determined by the type of production facility, the application of the prime source and the resulting costs of electricity production. According to an EC directive, all qualified production and production from domestic sources are subsidised from the funds allocated for preferential dispatch. The network operators obtain these funds from the end consumers as part of the price for using the networks. The subsidised amount of the price is set by the Government of the RS.

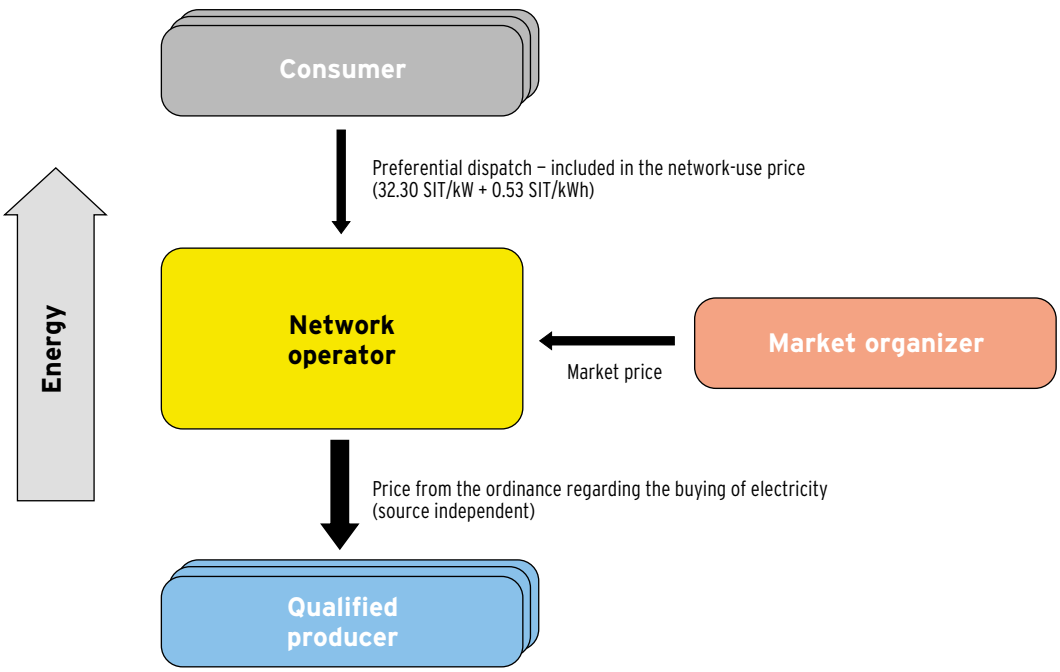


Figure 5: *Financing of the preferential dispatch of the qualified producers*

2.1.2 The transmission of electricity

The transmission of electricity is a public service with the fundamental aim of transporting electricity from large power stations to large consumer centres or to distribution networks. The transmission of electricity also provides for all types of cross-border-trading activities like the import, export and transfer of electricity.

Electricity is transmitted in the network at 3 voltage levels: 400 kV, 220 kV and 110 kV. The distribution-transformer stations (DTSs) belong to the transmission of electricity too. A long-term aim in the development of electricity transmission is to abolish the 220-kV voltage level and to modify the corresponding facilities to operate at the 400-kV voltage level. The establishment and expansion of the international interconnections are among some of the most important projects, particularly because these will provide a long-term, reliable supply of electricity. In the design of these interconnections it is necessary to consider the effects and consequences of the additional amounts of electricity on the input and output sides, and the effects of own use on the operating conditions in Slovenia for the present configuration of the high-tension network.

Elektro-Slovenija, d.o.o (ELES) operates the services in the field of electricity transmission in Slovenia. According to the EL there are two regulated services in the field of electricity transmission: the transmission of electricity (TE) and the transmission-system operation (TSO). In accordance with the EL and the government ordinance regarding the operation of the public service of electricity transmission and the public service of the transmission-system operation, ELES carries out two separate activities, provided by the above-mentioned public services (PSs).

The main tasks of the PS TE are the transmission of electricity, responsibility for the maintenance of primary and secondary transmission systems, and responsibility for developing and building the primary and secondary transmission systems. The PS TSO provides the services in the field of operating and running the transmission system. The most important tasks are to provide a safe and reliable operation of the whole Slovenian electricity system, to provide the ancillary services, to provide the eligible customers and electricity producers access to the network, and the preparation of the system-operation instructions.

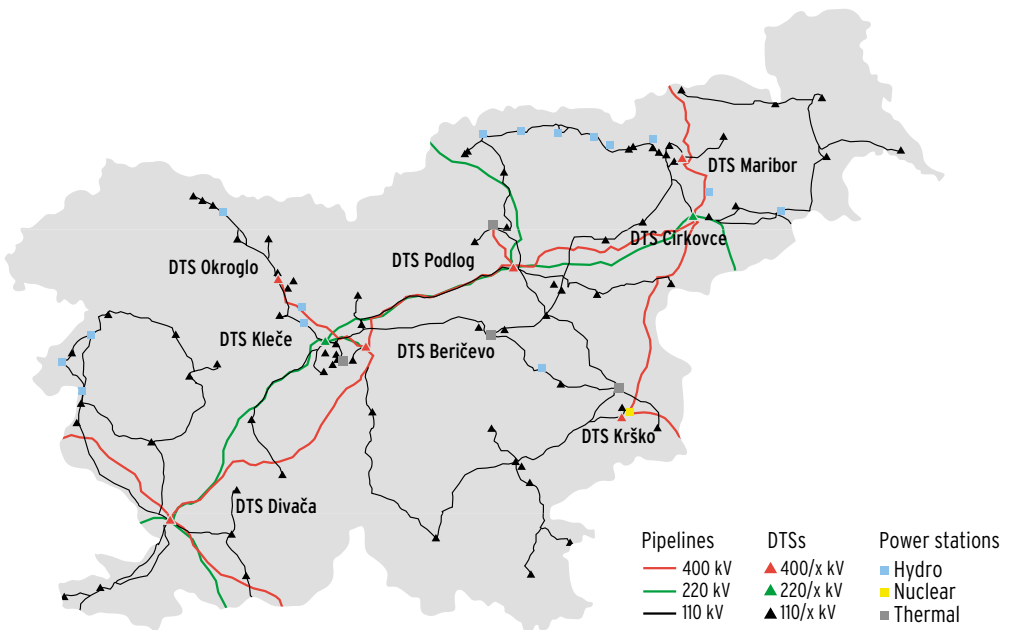


Figure 6: *The electricity transmission network*

2.1.3 The distribution of electricity

The distribution of electricity is the transmission of electricity along the distribution network to the end customers. The distribution networks are usually of medium (10, 20 and 35 kV) and low (0.4 kV) voltages, but sometimes also of high voltages (110 kV). In principle they operate in a radial configuration, which makes them different from transmission networks, which are characterized by a meshed-system configuration. The medium-voltage part of the distribution networks in Slovenia has been gradually transformed into a unified 20-kV system over many years.

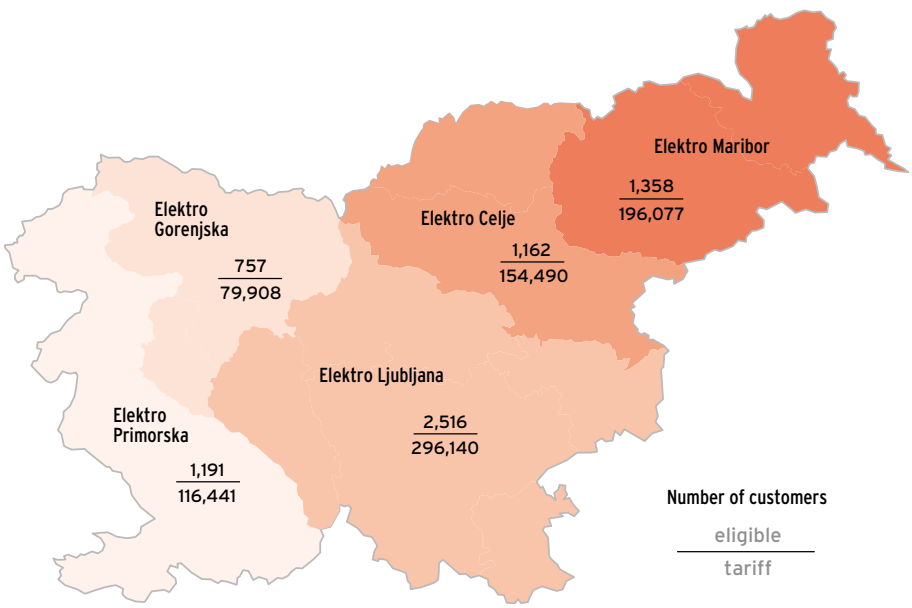
The distribution of electricity in Slovenia is regulated by the EL and the government ordinance relating to the operation of the PS in the field of distribution of electricity. According to these documents there are three different PSs in the field of the distribution of electricity: the distribution of electricity, the operation of the distribution system and the supply of the tariff customers. The first two of these operate the services, which are connected with the distribution networks, and their operations are regulated by the agency.

In 2002 the distribution companies legally divided the electricity-production service of small hydropower stations between subsidiary companies. Procedures to separate the telecommunications service by turning it over to a subsidiary company have started too.

In Slovenia there are five companies involved in the distribution of electricity, which, at least with regards to the provision of the three PSs, cover particular areas. These companies are:

- Elektro Celje, d. d.,
- Elektro Gorenjska, d. d.,
- Elektro Ljubljana, d. d.,
- Elektro Maribor, d. d.,
- Elektro Primorska, d. d.

As individual services these companies also simultaneously provide the PS of electricity supply to tariff customers and the market service of electricity supply to eligible customers.



Source: Agency

Figure 7: *Areas of the distribution-network operators with the numbers of eligible and tariff customers at the end of 2002*

2.1.4 Electricity sources and consumption

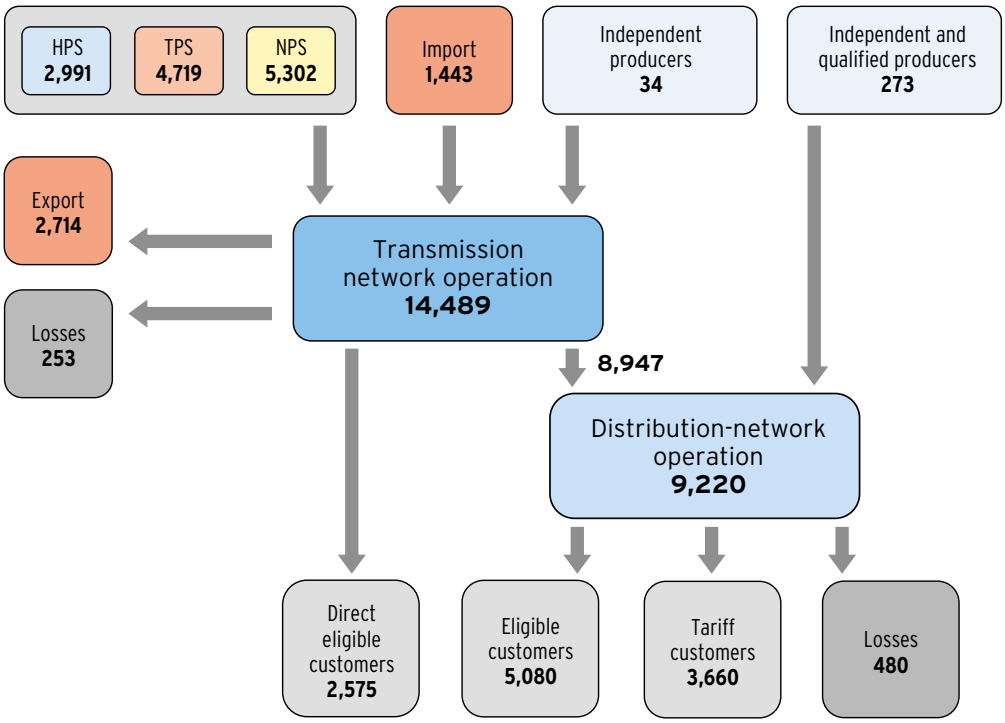


Figure 8: *Balance of the power consumption and production in 2002 – in GWh*

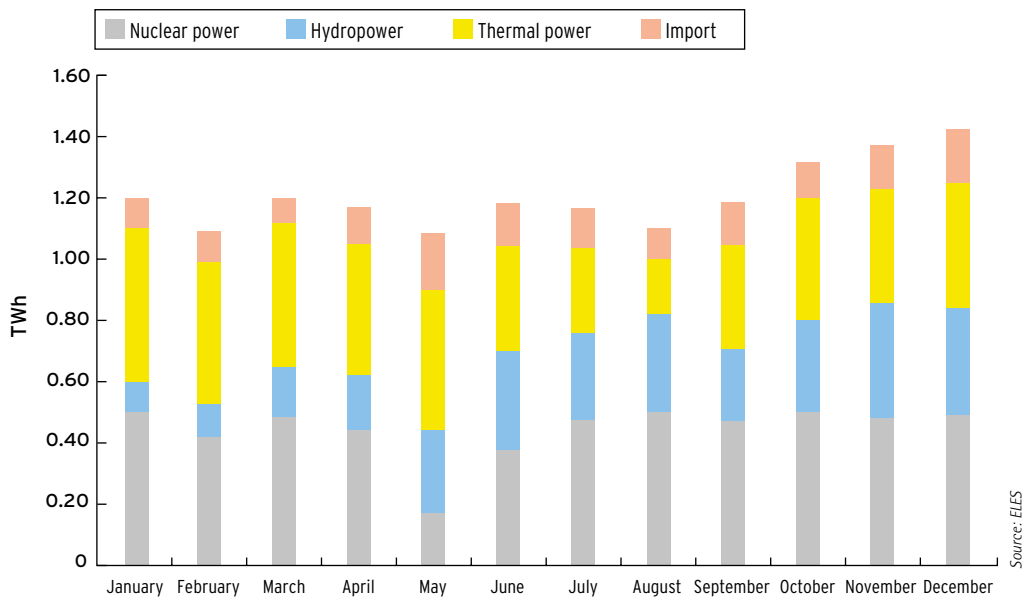


Figure 9: *Monthly delivery of electricity on the transmission network*

	2001	2002	2002/2003
Hydropower stations	3,449	2,991	86.7
Thermal power stations	4,413	4,719	106.9
Nuclear power station	5,030	5,302	105.4
Qualified production – total	301	307	102.0
Total production in RS	**13,192**	**13,319**	**101.0**
Import	748	1,443	192.8
Total	**13,941**	**14,762**	**105.9**

Source: agency

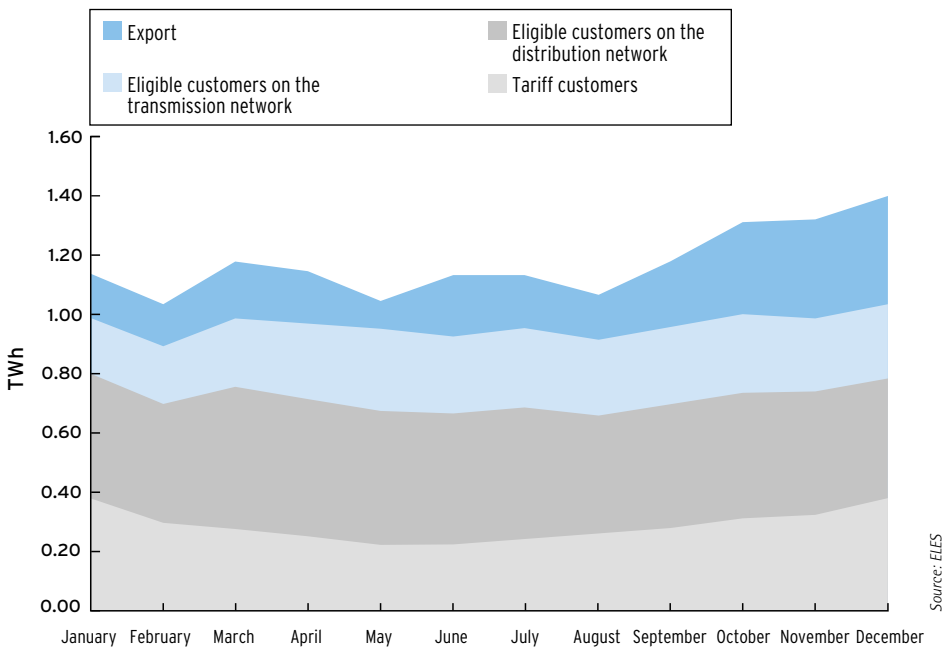
Figure 10: *Comparison of the electricity production for the periods 2002 and 2001 – in GWh*

The total amount of electricity produced in Slovenia and imported in 2002 was 5.9% higher than the corresponding quantity in 2001 and it covers the Slovenian requirements and export. This total is 14,762 GWh of electricity, of which 90.2% was produced in Slovenia, while the rest was imported. Hydropower contributed 13% less than in 2001, mainly due to the drought in the first part of 2002, and this also applies to the small hydropower stations. The contribution of thermal power was increased by 6.9% compared to 2001. In 2002 the Nuclear power station Krško produced 5.4% more electricity than in the year before. No additional, large production units were connected to the network, which actually means a drop in the levels of domestic production. The total production by independent and qualified producers was 2% larger than in 2001.

In spite of the total increase in domestic production by 1%, the electricity suppliers or customers exported an additional 1,443 GWh of electricity, i.e. 10.3% of the total consumption. In 2002 the Government of the RS allowed companies that annually consume more than 100 GWh of electric energy to purchase electricity abroad, which actually resulted in an early liberalisation of the international market.

The net consumption of electricity in 2002 in the Republic of Slovenia was 11,315 GWh, which is 6.3% more than in 2001. The eligible consumers, located in Kidričevo, Ruše, Jesenice, Štore and Ravne, which take the electricity from the transmission network, took 21.5% more electricity than in the year before. The direct eligible consumers consumed 22.7% of the total amount of consumed electricity.

There is a distinction between the eligible and tariff customers in the distribution network. Together, they consumed 8,740 GWh of electricity, which is 2.5% more than in 2001. This means that the growth in domestic consumption was larger than average (in the previous years it was less than 2%), which will stimulate the building of more production facilities or, alternatively, the import of electricity over the next few years. The electricity losses in the transmission network were 257 GWh; the distribution-network operators had to provide 480 GWh of electricity to cover these losses in the distribution network.



Source: ELES

Figure 11: *Dynamics of the monthly consumption of electricity in 2002*

	2001	2002	2002/2003
Eligible customers on the transmission network	2,119	2,575	121.5
Eligible customers on the distribution network	8,530	5,080	102.5
Tariff customers		3,660	
Total consumption in RS	**10,649**	**11,315**	**106.3**
Export	2,460	2,714	110.3
Total	**13,109**	**14,029**	**107.0**

Source: agency

Figure 12: *Comparison of the electrical-energy consumption for 2002 and 2001*

In order to ensure a reliable operation, the network operator monitors data relating to the maximum values of the peak power. Two values – the maximum peak value of consumption in a month and the maximum peak value of consumption on every third Wednesday in a month – indicate the sufficiency and, at the same time, the availability of the sources in comparison to the consumption of the electricity. In recent years the consumption in the distribution network has grown during the summer, resulting in a gradual equalization between the summer and winter electricity consumptions. The maximum peak load in 2002 for the Slovenian electric-power system was in December and was equal to 1,901 MW. It was 3.4% larger than the peak value in 2001.

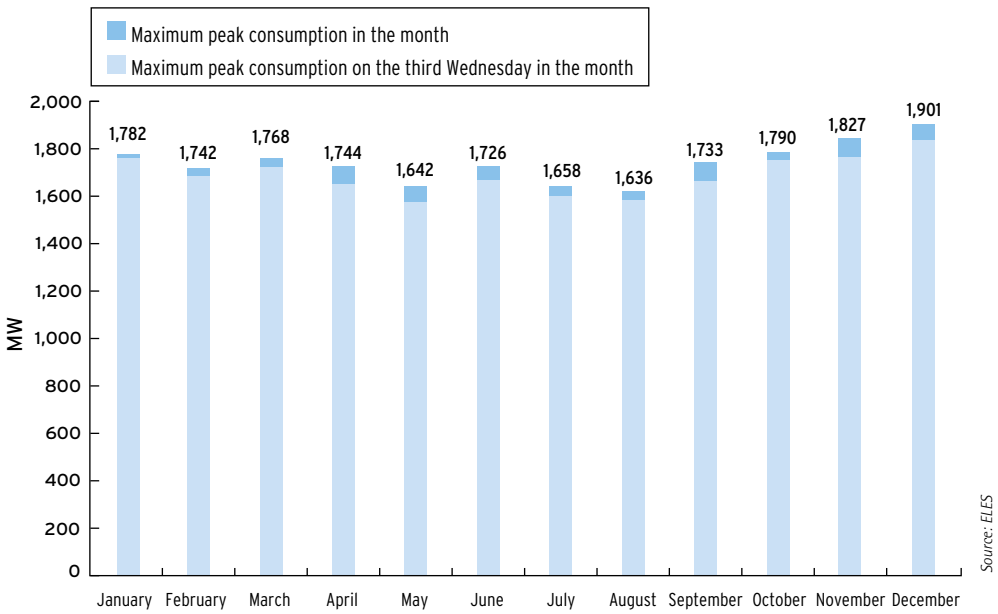


Figure 13: *Maximum peak power of consumption for 2002*

2.2 The economics of the electrical-energy and coal-mine companies

2.2.1 Electrical-energy companies

The electrical-energy companies finished the fiscal year 2002 with a profit of 12,489.2 million tolars. The production companies made a profit of 7,503.4 million tolars, while the distribution companies ended the fiscal year with a loss of 2,143.9 million tolars. The transmission company made a profit of 7,129.8 million tolars, mainly due to additional income sources. The economic result for 2002 is not comparable with the previous year's result, when the companies finished the fiscal year with a large loss due to the evaluation of real estate, machines and equipment on 31 December 2001.

The net economic result for the electric-energy companies is presented in the table.

	in mil SIT
Drava power stations Maribor, d. o. o.	2,400.4
Sava power stations Ljubljana, d. o. o.	246.3
Soča power stations Nova Gorica, d. o. o.	274.5
Thermal power station Brestanica, d. o. o.	120.3
Thermal power station Šoštanj, d. o. o.	-795.9
Thermal power station Trbovlje, d. o. o.	28.3
Combined heat-and-power plant Ljubljana, d. o. o.	68.0
Nuclear power station Krško, d. o. o.	5,161.5
Total hydropower	2,921.2
Total thermal power	-579.4
Nuclear power	5,161.5
Total production	7,503.4
Total distribution	-2,143.9
Elektro-Slovenija, d. o. o.	7,129.8
Totel electric-power system	**12,489.2**

The largest producer, as well as supplier, of electricity in 2002 was Holding Slovenske elektrarne, d. o. o. (HSE). The company is made up of different production companies, which use different sources and provide different energy products. These facts provided the basis for the synergetic effects of the individual companies, and the successful operation of the HSE. In 2002 the HSE founded two subsidiary companies: HSE Invest, d. o. o., in Maribor; and HSE-IIP, d. o. o., in Sevnica. Holding Slovenske elektrarne operated with a net profit of 12,285 million tolars, while the whole HSE group had a profit of 14,389 million tolars.

2.2.2 Coal-mine companies

Both coal mines finished the fiscal year with a loss of 589.6 million tolars, and achieved the following economic results:

	in mil SIT
Coal mine Velenje, d. d.	-597.3
Coal mine Trbovlje-Hrastnik, d. o. o.	7.6
Total Coal mines	**-589.6**

The droughts, which were significant in 2002, resulted in a decreased production of electricity in the hydropower stations, and, as a result, in larger demands for electricity from the coal thermal power stations. The planned excavation of coal was exceeded by 17% in the Velenje coal mine, and by 6,45% in the Trbovlje-Hrastnik coal mine.

Coal production in 2002 – in tonnes:

	Achieved production	Planned production
Coal mine Velenje, d. d.	4,045,839	3,960,000
Coal mine Trbovlje-Hrastnik, d. o. o.	638,709	600,000

2.2.3 Ownership of the electric-energy and coal-mine companies

Besides Holding Slovenske elektrarne, d. o. o, the HSE group is made up of the companies specified in the table below. Some of the dependent companies are also the single or part owners of other companies. HSE, d. o. o. is either the major or the single owner of particular dependent companies.

The ownership in the HSE group is presented in the table:

Company	Headquarters	Share on the 31. 12. 2002 HSE, d.o.o.	Others
Drava power stations Maribor, d. o. o.	Maribor	79.4%	20.6%
Sava power stations Ljubljana, d. o. o.	Medvode	79.5%	20.5%
Soča power stations Nova Gorica, d. o. o.	Nova Gorica	79.5%	20.5%
Thermal power station Brestanica, d. o. o.	Brestanica	79.5%	20.5%
Thermal power station Šoštanj, d. o. o.	Šoštanj	79.5%	20.5%
Coal mine Velenje, d. d.	Velenje	77.7%	22.3%
HSE Invest, d. o. o.	Maribor	100.0%	0.0%
HSE-IIP, d. o. o.	Sevnica	100.0%	0.0%
TDR Metalurgija, d. d.	Ruše	74.4%	25.6%

Source: HSE

The state is the single owner of Elektro-Slovenija, Holding Slovenske elektrarne and the Trbovlje-Hrastnik coal mine as well as being the major owner of the other companies.

More detailed data regarding the ownership of the electrical-energy and coal-mine companies are presented in the table:

Company	Republic of Slovenia	Capital fund, PPS	Other shareholders	Local Community of the City of Ljubljana	ELES-GEN	Croatian Electricity Industry
Thermal power station Trbovlje, d. o. o.	78.4%	1.1%	20.5%			
Comb. heat-and-power plant Ljubljana, d. o. o.	64.6%			35.4%		
Elektro-Slovenija, d. o. o.	100.0%					
Elektro Celje, d. d.	79.5%	1.5%	19.0%			
Elektro Primorska, d. d.	79.5%	0.8%	19.7%			
Elektro Gorenjska, d. d.	79.5%	1.3%	19.2%			
Elektro Ljubljana, d. d.	79.5%		20.5%			
Elektro Maribor, d. d.	79.5%	1.8%	18.7%			
Nuclear power station Krško, d. o. o.					50.0%	50.0%
Holding Slovenske elektrarne, d. o. o.	100.0%					
Coal mine Trbovlje-Hrastnik, d. o. o.	100.0%					

2.3 Regulated services in the electric-power system

2.3.1 Mandatory public services of the Republic of Slovenia

The 20th article of the EL specifies the following mandatory public services (PSs):

- electricity transmission,
- transmission-system operation,
- electricity distribution,
- distribution-network operation,
- supply of electricity to non-eligible customers (supply to tariff customers),
- organization of the electricity market.

The operation of particular PSs in particular companies is specified by the respective ordinances in the following manner:

- Elektro Slovenija: the PS for the transmission of electricity and the PS for the transmission-system operation;
- Individual distribution companies: the PS for the electricity distribution, the PS for the distribution-network operation and the PS for the supply to tariff customers;
- Borzen: the PS for the organization of the electricity market.

The 38th article of the EL orders the legal entities that provide the energy-related activities, as well as other services, to prepare separate financial reports relating to different activities. In order to avoid cross subsidy, separate accounting for the energy-related activities has to be provided.

The EL assigns the agency to set the network charge for the transmission and distribution networks. The incomes from the network charge are required to cover the infrastructure-network costs of the electricity-transmission PS, the electricity-distribution PS, the transmission-system-operation PS and the distribution-network-peration PS.

According to the provisions of the EL, the agency regulates:

- distribution companies for the electricity-distribution (ED) PS and the distribution-network-operation (DNO) PS,
- the transmission company for the transmission of electricity (TE) PS and the transmission-system-operation (TSO) PS.

The EL also specifies the principles of the third-party regulated access to the network. Complaints against the decisions made by the network operators relating to access to the network are considered by the agency as the complaint body, according to the law relating to general administrative procedures.

The Government of the RS regulates according to the EL:

- distribution companies for the tariff-customers-supply (TCS) PS, because it sets the tariff rate and therefore directly influences the operation of this service within the companies
- Borzen, for which the electric-network charge is set by the Government of the RS. The charge represents the main source of the Borzen incomes.

2.3.2 Network charges

In November 2001 the agency proposed a price-list for the network charge, the grounds for the assessments of the regulated services of the distribution and transmission companies, and a proposal for correction factors for 2002. The proposed network-charge price-list (NCPL) and the price-rate for the ancillary services were included in the changes of the rule for setting the prices for the electricity-network use and of the criteria for the eligibility of the costs, which were submitted to the Government of the RS by the agency. The change of the rule, which came into force on 1 January 2002, was published in the Official Gazette of the Republic of Slovenia, No. 103 on 17 December 2001.

The proposed network-charge price-list was based on the assessment of the eligibility of the operation costs for the regulated services, and on the required financially covered amortization for the repayment of the principle of the already-loaned investment credits, and the new investments in 2002.

The network charge is required to cover the infrastructure-network costs, such as:

- control, operation and maintenance of the network,
- development of the network,
- covering the losses in the electricity network.

The network-charge price-list was proposed on the basis of the assessed eligible infrastructure-network costs in 2002, and on the basis of the planned electricity consumption in Slovenia. The assessment for the required income from the network charge (NC) for 2002 was 58,527.5 million tolars: more precisely, 32,5439.9 million tolars for the distribution network charge and 9,868.4 million tolars for the transmission network charge. The consumption of electricity was larger than taken into account when proposing the price list, hence the income in 2002 exceeded the plan by 5% and was 61,431 million tolars.

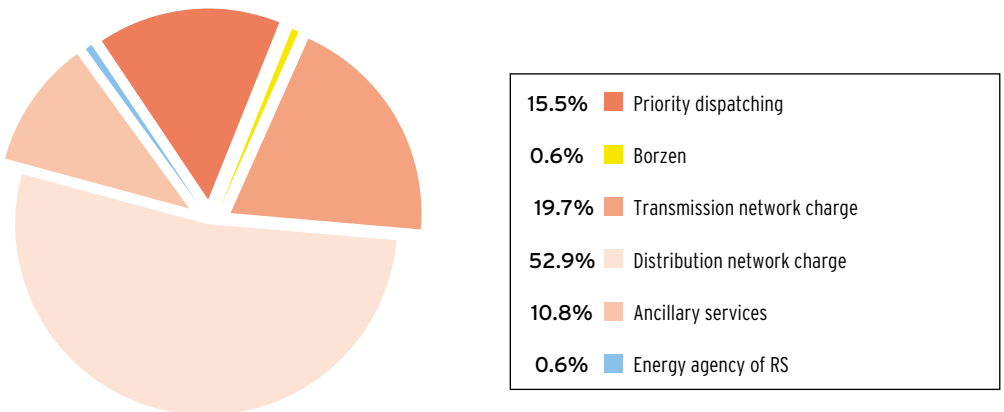


Figure 14: *Network-charge fractions and other extra contributions included in the network-use price*

2.3.3 Network access

Network access is the legal right to use the energy networks for the consumption or transmission of an agreed quantity of energy at an agreed time. According to the Slovenian EL, this right can be enforced by the eligible customers or producers, and traders and agents can also access the network on their behalf.

Network access to the interested eligible customers is granted by the distribution-network operators and the transmission-network operator. Another condition for the assignment of network access is membership of one of the balance groups, due to the enforcement of the rules relating to the mode of charging for the supply or consumption deviations from the operation schedules (Official Gazette of the Republic of Slovenia, no. 83/02). Network access for a producer or an eligible customer can only be denied in the case of technical or operational limits in the network. However, access to the network can also be denied if demanded by the electricity producer in the Republic of Slovenia according to the reciprocal principle that allows the network operator to deny access to a producer from a country in which the consumer is not eligible for a free choice of supplier.

2.3.4 Financial results of the regulated companies for the transmission and distribution of electricity

The regulated distribution companies finished the fiscal year 2002 with a loss of 2,143.9 million tolars, where the agency is responsible for regulating the services that accounted for a loss of 654.9 million tolars. The total tariff-customers-supply-service loss of all the distribution companies was 6,104.1 million tolars. This is a result of keeping the prices for the tariff customers constant, which does not cover the electricity costs, and the NC. For this reason the funds of the regulated electricity-distribution and the distribution-system-operation services, devoted to the development of the network, are spent for another regulated service – supply to tariff customers. This method of solving the problem of appropriate prices for the tariff customers results in problems with providing a long-term quality supply of electricity to the customers – the quality gets just worse instead of better.

The transmission company Elektro-Slovenija made a profit of 7,129.8 million tolars. Most of the profit, 6,242.9 million tolars, represents the extra incomes from the agreement to reimburse a part of the duties from the contract relating to the sale and buying of electricity, and realising a debt with the Nuclear power station Krško. In 2002 the regulated services TE and TSO made a profit of 511.8 million tolars.

The financial results in 2002 for the services regulated by the agency are not comparable with the previous year's results, when the companies finished the fiscal year with a large loss due to the evaluation of the real estate, machines and equipment on 31 December 2001. The results are also not comparable because 2002 was actually the first business year for which the monthly results for all services were traced for all months.

The financial results of the regulated companies are presented in the following table:

in mil SIT

	Company	DNO, ED, TSO, TE	TCS	Total PSs
Elektro Celje, d. d.	-635.0	-86.7	-1,046.3	-1,132.9
Elektro Primorska, d. d.	165.8	411.6	-1,268.7	-857.1
Elektro Gorenjska, d. d.	440.6	-231.8	-567.5	-799.3
Elektro Ljubljana, d. d.	-529.5	-305.1	-1,580.6	-1,885.7
Elektro Maribor, d. d.	1,585.8	-442.9	-1,641.1	-2,084.0
Total distribution	**2,143.9**	**-654.9**	**6,104.1**	**-6,758.9**
Elektro-Slovenija, d .o. o.	7,129.8	511.8	0.0	511.8
Total	**4,985.9**	**-143.1**	**-6,104.1**	**-6,247.1**

2.3.4.1 Investments of the companies for the transmission and distribution of electricity

It was planned that the companies for the transmission and distribution of electricity would invest 18,139 million tolars in 2002. The realized value was 18,007 million tolars, or 99.3%. For the electricity-transmission facilities, 3,873 million tolars from the investment fund were spent, which means a 87.5% realization. For building the facilities for the distribution services, 14,205 million tolars were spent, which is 2.7% more than the electricity-distribution companies proposed in their plans.

The list of investments is presented in the following table:

in mil SIT

	Realization	Plan	Index
Elektro Celje, d. d.	2,354	2,200	107.0
Elektro Gorenjska, d. d.	2,204	2,150	102.5
Elektro Ljubljana, d. d.	4,369	4,415	99.0
Elektro Primorska, d. d.	2,204	2,000	110.2
Elektro Maribor, d. d.	3,074	3,060	100.5
Total distribution	**14,205**	**13,825**	**102.7**
Elektro-Slovenija, d. o. o.	3,873	4,424	87.5
TOTAL	**18,078**	**18,249**	**99.1**

Source: Agency

There were large investments in building and reconstructing the 20- and 10-kV medium- and low-voltage networks. This improved the voltage conditions of the end customers and decreased energy losses in the network. There were also investments in the building of the 110-kV network for the expansion of the distribution-transformer stations.

The activities on the transmission network were carried out on 33 investment projects and on reconstructions. The largest single investment was building the Krško 400/110 kV distribution-

transformer station with a high-tension terminal. This facility is important, mainly because it provides for the reliable and safe operation of the Krško Nuclear power station and contributes to better voltage conditions in the area of Dolenjska and Bela krajina.

The main source for the investments in distribution and transmission were represented by the amortization for the current year. Within the distribution, 66.2% of the investments were financed from the amortization, 18.3% from credits, 15.2% from the co-investment funds, and 0.3% from other sources. The amortization represented 97.3% of the investments within the transmission, while 2.7% came from the co-investment funds.

2.3.5 Market-organizer economy

Borzen, d. o. o, which is the electricity-market organizer, finished the fiscal year 2002 with a positive business result. The company had 366.9 million tolars of incomes and 342.3 million tolars of costs. The net profit from the ordinary operation was 24.6 million tolars in the fiscal year 2002.

2.4 Electricity trading

The consumers or customer suppliers have been free to buy electricity since the liberalisation of the market, enforced by the EL. The supply of the eligible customers is a market activity, where the supplier and consumer freely negotiate the amount and the price of the supplied electricity. This is done either in terms of a bilateral contract or directly on an organised electricity market.

2.4.1 Distribution-companies trade

The distribution companies, as the largest suppliers of electricity, mostly made the annual contracts for buying the electricity for their customers and covering the losses in the network. They sold/bought the eventual excesses/deficits on the organised market.

Besides the mandatory distribution-network-operation and the distribution-network PSs, in 2002 the distribution companies also operated the mandatory PS for supplying electricity to the tariff customers, and the energy-market activity of supplying electricity to eligible customers, and other non-energy market activities.

Within the framework of the mandatory PS of supplying the electricity to tariff customers and the energy-market activity of supplying the energy to eligible customers, the distribution companies acted as the suppliers of electricity to the end customers. The electricity for the end customers and for covering the losses in the network was obtained by the distribution companies mainly at Holding Slovenske elektrarne and at the Krško Nuclear power station.

The largest suppliers of electricity in 2002 were Holding Slovenske elektrarne and the Krško Nuclear power station, which supplied more than 80% of the required electricity to the distribution companies on the basis of annual contracts. The distribution companies obtained the remaining energy from the qualified producers and on the organised electricity market (the daily market and the preferential-dispatch market).

The buying price of the energy, taken from Holding Slovenske elektrarne and the Krško Nuclear power station was agreed by the annual contracts relating to the buying and selling of electricity in 2002.

The buying price of the electricity, produced in power stations with a status of a qualified producer, was set by the government in the conclusion regarding the prices and premiums for buying the electricity from qualified producers (Official Gazette of the Republic of Slovenia, No. 25/02).

In 2002 the distribution companies, as the suppliers to the eligible and tariff customers, for trade on the Slovenian market and for imports, bought electricity from:

- Holding Slovenske elektrarne,
- Krško Nuclear power station,
- qualified and independent producers,
- and on the stock-exchange market.

About 55% of the total electricity bought by the electricity-distribution companies was used for the supply to the eligible customers, while about 45% was used for the supply to the tariff customers. The prices of the electricity for the eligible customers were set in the contracts with the eligible customers. In 2002 the electricity-distribution companies charged the tariff customers the prices or tariff rates set by the Government of the RS. This determined the prices with the tariff system.

The electricity-distribution companies supply about 98% of the tariff customers in their areas, and about 2% of the eligible customers.

2.4.2 Other-participants trade

The traders mainly bought electricity from the Slovenian electrical-energy producers on the basis of long-term bilateral contracts. The largest part of the supply of electricity belonged to Holding Slovenske elektrarne (Drava power stations, Sava power stations, Soča power stations and the Thermal power station Šoštanj) and to the Krško Nuclear power station. The remaining electricity was bought on the organised market and at auctions. The extra electricity due to increased flow rates in the hydropower stations or due to production costs being lower than market prices were sold on the organised market.

In 2002 some of the eligible customers took advantage of a free choice of the electricity supplier. This year 138 of a total of 6,984 eligible customers substituted their suppliers. Most of the substitutions were made in the first three months after the prices of electricity were set for the year.

Until the end of 2002, 65 licenses for trading on the organised electricity market were issued (in 2001 it was 48 licenses) in accordance with the EL. In addition, 39 agent and dealer licenses were issued (in 2001 it was 30 licenses).

In 2002 electricity for eligible customers was supplied by:

- Holding Slovenske elektrarne, d. o. o.,
- Electricity-distribution public company Elektro Celje, d. d.,
- Electricity-distribution public company Elektro Gorenjska, d. d.,
- Electricity-distribution public company Elektro Ljubljana, d. d.,
- Electricity-distribution public company Elektro Maribor, d. d.,
- Electricity-distribution public company Primorska, d. d.,
- Elektroprodaja Ljubljana, d. o. o.

2.4.3 Organised-electricity-market trading

The organised electricity market is an institution where buyers and sellers bid for electricity. The operation of the organised electricity market, the rights and duties of the market organisers and the members of the market are specified by the Ordinance regarding the mode of providing the public service for the organisation of the electricity market and the Rules relating to the electricity-market operations. The organised-electricity-market PS is provided by Borzen, d. o. o.

The main activity of the company is the organisation of the electricity market in Slovenia, which includes:

- bidding for electricity – electricity exchange (daily market, hourly market),
- accounting and settling the businesses made on the organised market – the function of a clearing house,
- keeping the evidence of the bilateral contracts,
- preparing the operation schedules,
- public announcements of market-price movements,
- providing training for the organised-electricity-market members.

The market organiser provides information about the prices and the amount of business made on the market in different time periods and about the exchange indexes. This information enables the traders to make decisions about suitable strategies and to shape their own bids.

The electronic-commerce system provides the basis for the daily electricity market. It ensures that the electricity that is sold/bought today will be produced and consumed tomorrow. The trade is performed simultaneously at an auction. The objects of the trade are standard products: the base, shoulder and night electricity, and electricity for each particular hour.

Only the companies possessing the corresponding license and the contract made with the market organiser can trade on the organised electricity market. In 2002 the organised electricity market consisted of 15 members.

In 2002 the trade with electricity on the market was performed in two segments: on the daily market and on the preferential-dispatch market. The trade on the daily market was performed every business day. The traded electricity was supplied on the following day. Only electricity for the preferential dispatch was traded on the preferential-dispatch market. The trade was performed once a week, usually every Thursday.

The daily and preferential-dispatch markets formed the organised market in 2002, and they represented the basis for the calculation of the Slovenian electricity-trade index (SLOeX). Last year the SLOeX was calculated as the arithmetic mean value between the weighted mean value of all businesses made on the daily market and the weighted mean value of all businesses made on the preferential-dispatch market.

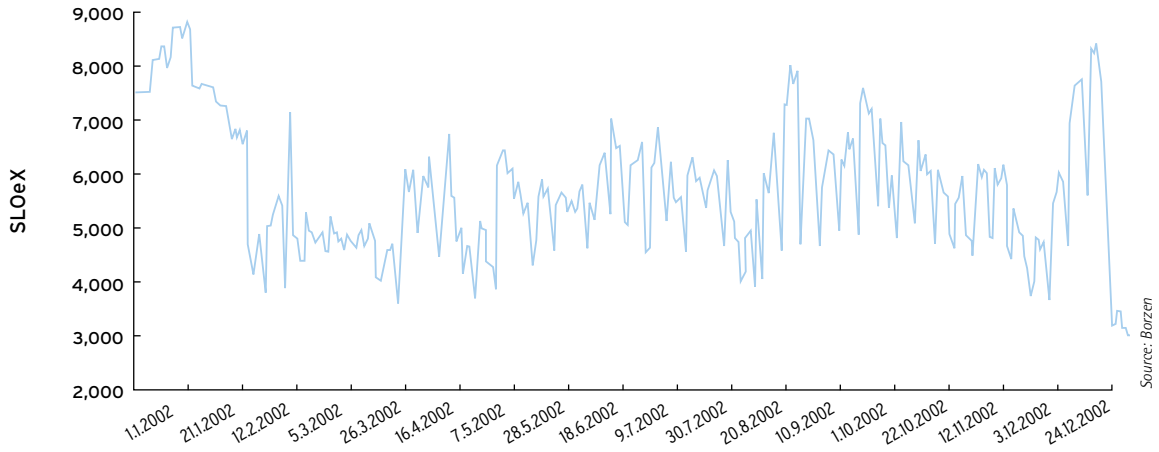


Figure 15: *Slovenian organised-electricity-market index*

The highest and lowest price achieved on the organised market for a business and weekend day:

SIT/MWh

	Lowest price	Highest price
Business day	2,361	10,308
Weekend	1,741	9,000

In the first half of 2002 the total monthly trade on the daily market was relatively low in contrast to the preferential-dispatch market, where the trade was high. In the second part of 2002 an interesting change occurred when the daily-market trade started to grow from month to month, while the preferential-dispatch-market trade reduced considerably.

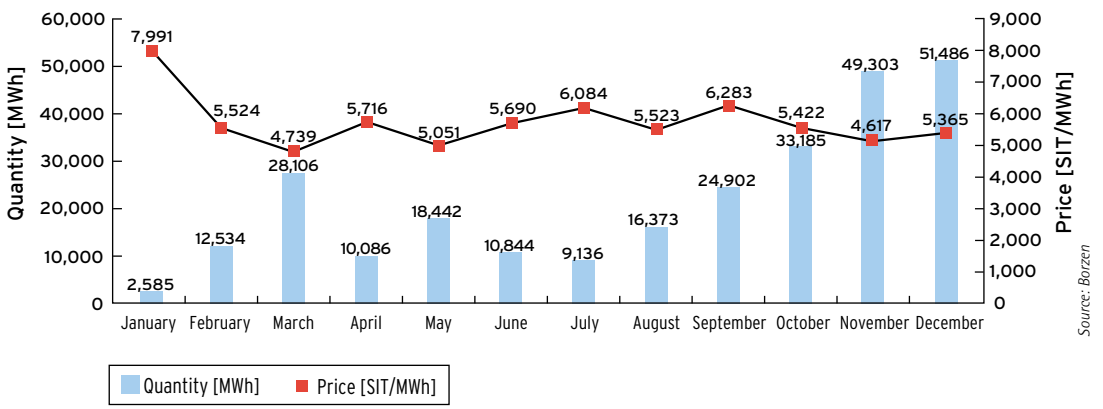


Figure 16: *Total monthly daily-market trade and the average monthly prices of all businesses made on the daily market in 2002*

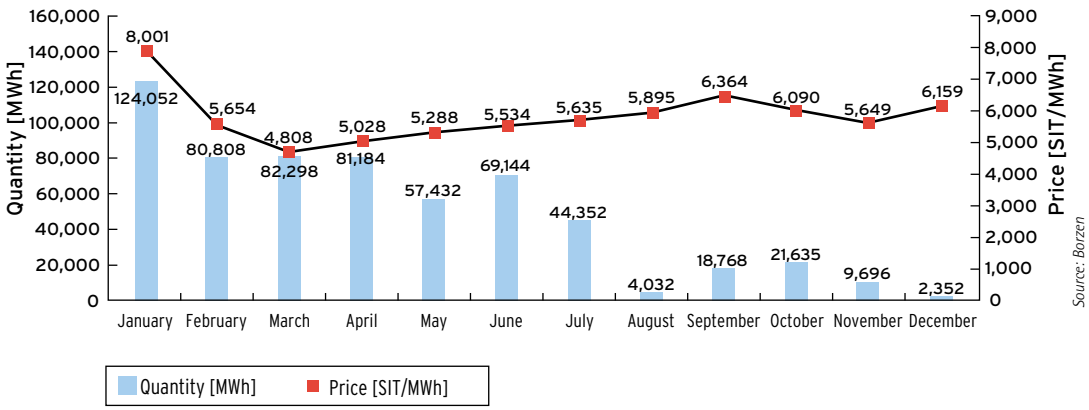


Figure 17: *Total monthly preferential-dispatch-market trade and the average prices of all businesses made on the preferential-dispatch market in 2002*

In 2002 the base electricity represented the most profitable product on the organised market by contributing 80.15%. The second most profitable product was the shoulder electricity, while the trade with the night-time energy and hourly products was lower.

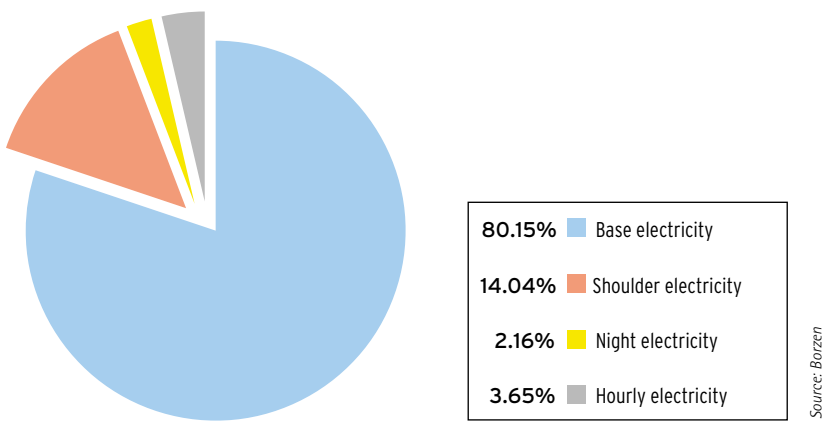


Figure 18: *Contributions to the standardized-products trade on the daily market*

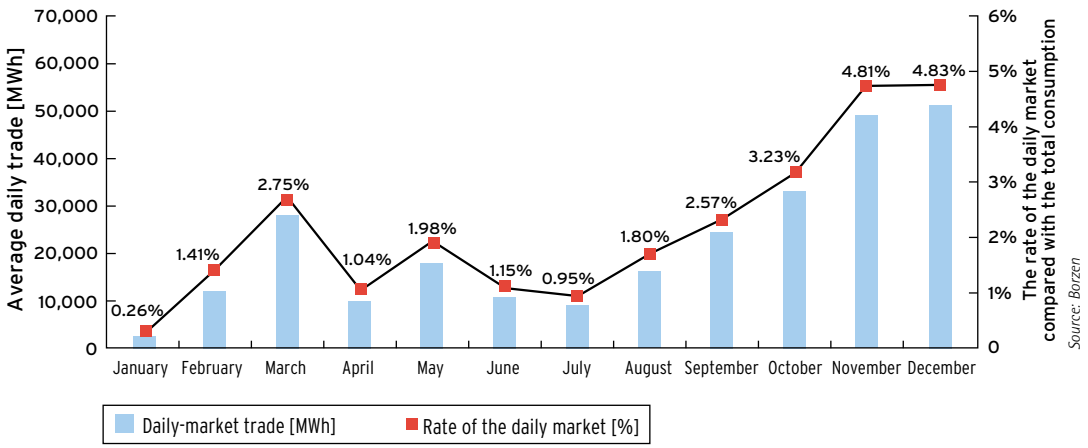


Figure 19: *Monthly-resolved daily-market contribution compared to the total monthly consumption for Slovenia in 2002*

The organised market proved to be successful in its first year. There are, however, some problems, which have to be avoided in the future in order to provide a further development of the market. The main problems are the determination of the deviations, the assignment of cross-border transmission capacities, and the lack of competition among suppliers.

2.4.4 Cross-border trading with electricity

The cross-border trading in 2002 was still governed by the conditions of the not-completely-liberalised market. Already in 2001 the Government of the RS set the amounts of electricity that individual large consumers could import in 2002. The export of electricity was not limited in 2002, and all producers could export the extra amounts of electricity within the frame of the limited access to the cross-border transmission lines. The most interesting cross-border transmission lines on the border with Italy were allready in 2001 assigned for the whole of 2002 by ELES – Transmission System Operation. The additional capacities that appeared during the year were assigned by turns of the received submissions. In the last quarter of the year, ELES assigned free capacities on the basis of the results of auctions, performed for this purpose by the market organiser Borzen.

In 2002 the traffic in electricity was intense due to favourable conditions and sufficient transmission capacities. The export of electricity was the most important factor in the transition, import and export across the territory of Slovenia. Exports were higher than imports due to the favourable conditions on the broader electricity market. Cross-border trading increased by at least 30% compared to 2001. The transfer of electricity to the Italian market represented the largest contribution, while the major part of the imported electricity came from the direction of Austria.

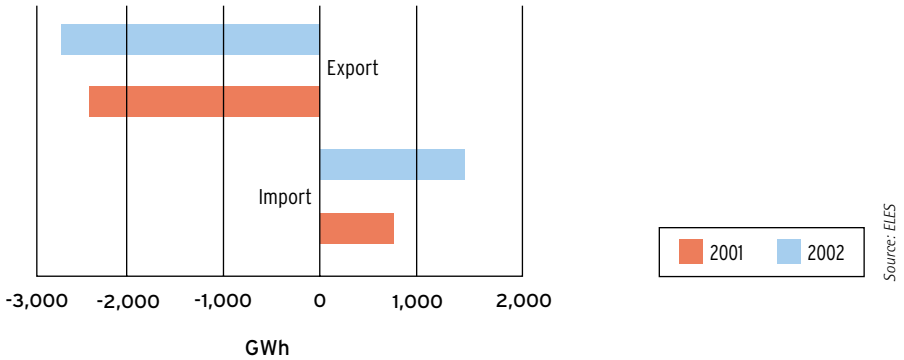


Figure 20: *Cross-border trading with electricity in the period 2001 and 2002*

2.4.4.1 Preparations for the complete liberalisation of the electricity market in 2003

The preparations for the external liberalisation of the electricity market, announced by the EL on 1 January 2003, were carried out in 2002. In addition to the Ministry for the Environment, Spatial Planning and Energy, the transmission-system operator, the market organiser and the agency took an active part in these preparations. The aim was to prepare the corresponding rules for the access to cross-border transmission lines to make a favourable agreement with the representatives of the neighbouring countries about the assignment of the free cross-border capacities. There were tendencies towards a joint assignment of the free cross-border capacities in 2003. But the representatives of the agency succeeded in making an agreement with the Italian and Austrian sides about the independent disposing of half of the available capacities by each of the neighbouring countries on the corresponding border.

The directives regarding access to the cross-border transmission capacities were prepared too. These directives were published in the form of rules in order to meet the requirement for the equal (or non-discriminatory) treatment of trading participants and to meet requirements relating to openness and transparency. As the rules for accessing the cross-border transmission lines include the criteria relating to the assignment of the network access, the agency formally has to approve these rules in accordance with the ordinance regarding the mode of providing the public service for the electricity transmission and the public service for the transmission-system operation.

On 10 October 2002 the agency first approved the criteria from the Rules for assigning the transmission capacities for the TRM (Transmission Reliability Margin). In the last quarter of 2002 Borzen held the auctions for assigning the free transmission capacities on the border with Italy on the basis of these rules. On 21 October 2002 the agency approved a slightly modified version of the same rules.

Together with the preparation of the rules for performing the auctions, the Rules regarding the type and conditions for assigning and regarding the criteria for access to the cross-border transmission lines were also prepared in 2002. These rules were prepared to set the conditions for access to the cross-border transmission lines before the external liberalisation of the market in 2003. One of the key starting points for the preparation of these rules was the conclusions by the Government of the RS from 7 November 2002. They specify that the electricity produced by domestic producers for supply of the eligible and tariff customers should not drop below 80% of the annual, or 75% of the short-term, amount of electricity consumed. The government also requested the application of the

»pro rata« method, which means a proportional decrease in the number of requests. On the basis of these governmental conclusions ELES prepared the final proposal of the rule. On 26 November 2002 the agency approved the criteria for access to the network, which are included in the rules.

On the basis of these rules, on 3 December 2002 ELES called for the application of the free capacities for 2003, separated in terms of the import of electricity in 2003 and the export of the electricity, either just for 2003 or for the period 2003-2005. On the basis of this call, access to the cross-border transmission lines was granted to 16 eligible consumers and to 5 electrical-energy producers.

An important event in the field of cross-border trading happened on 18 December 2002 in Brussels, when ELES representatives signed an agreement to allow ELES to enter into the settlement mechanism ETSO-CBT. This mechanism joins the system operators from the mainland part of the EU, Switzerland and Slovenia. According to the mechanism, a uniform charge for using the transmission network while trading across a border with a particular country is paid once a year. The system operators get the costs of cross-border trading reimbursed from the settlement CBT fund. The fund is financed by the cross-border-trading participants on the basis of the described uniform prices for accessing the network while trading across borders.

2.4.5 Prices of electricity in 2002

The consumers of electricity are divided into two groups after the partial liberalisation of the market. The consumers that are able to choose the supplier pay a price that is determined in a market-oriented manner, while the price paid by the tariff customers is set by the Government of the RS. The change in prices relative to 2001 was different for both consumer categories in terms of the prices in the EU countries. The prices were the lowest for household customers.

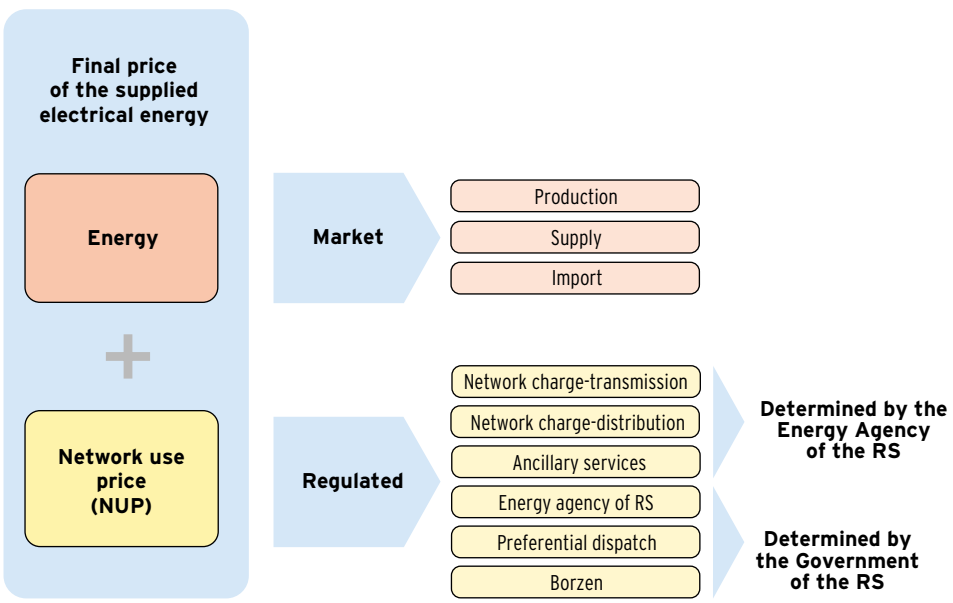
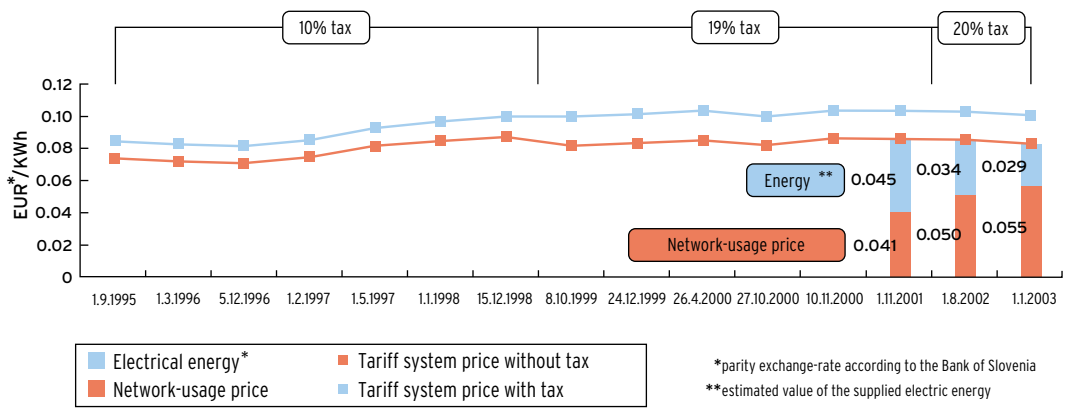


Figure 21: *Structure of the electricity prices*

2.4.5.1 Electricity prices for tariff customers

The electricity prices for tariff customers are determined on the basis of the uniform tariff system and tariff rates, which are determined by the Government of the RS. The prices for the tariff customers increased at the beginning of August 2002 by 2%, which in reality means a price reduction in comparison with 2001 if the 7.5% annual inflation rate is taken into account. The average price, taking into account the annual electricity sale to all tariff customers, was 18.88 tolars.

This figure represents the dynamics of the price growth for a typical household customer with a consumption of 3,500 kWh per year. The data were obtained on the basis of the published tariff rates, recalculated in EUR per kWh. The agency passes the network-use price-list (NUPL) independent of the passing of the tariff rates for the tariff customers. The electricity-distribution companies have ever smaller amounts of money for buying the electricity as a result of having to keep prices constant, as shown in the figure.



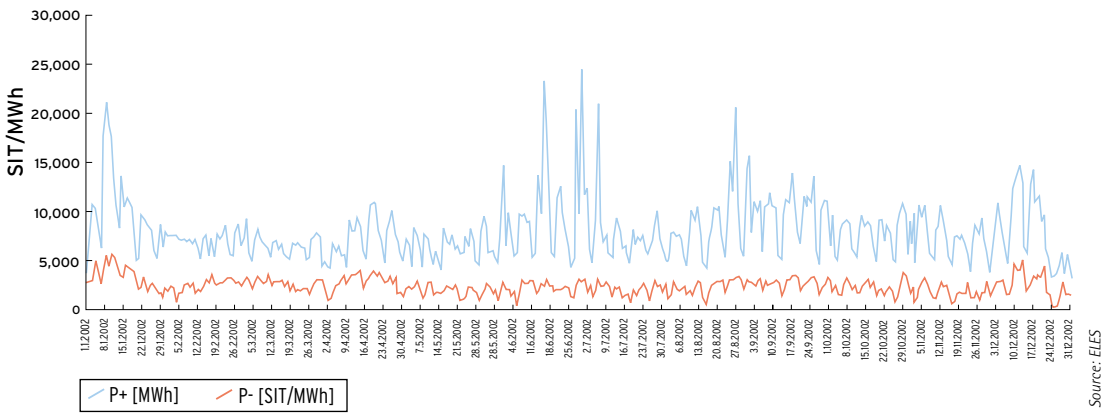
Source: Agency

Figure 22: *Price dynamics for a household customer with a yearly consumption of 3,500 kWh*

2.4.5.2 Electricity prices for eligible customers

Eligible customers can choose an electricity supplier or a trader. The price was agreed on the basis of the annual contracts with traders or suppliers. The contracts relating to access to the network were made on the same basis. The final price includes the prices for the energy and the use of the network. The providers – traders and suppliers – determined the prices on the basis of the expected dynamics and the estimated deviations of the consumer operation-schedule.

The price of electricity is, in comparison with the deviation price, determined in advance, and it represents the subject of the agreement, specified in the supply contract. The deviation price varies according to the market conditions in agreement with the Rules regarding the mode of charging for the deviations of electricity from the operation schedules. These Rules substituted the Rules regarding the settlement-market operation. The price dynamics for negative and positive deviations in 2002 is presented in the following figure.



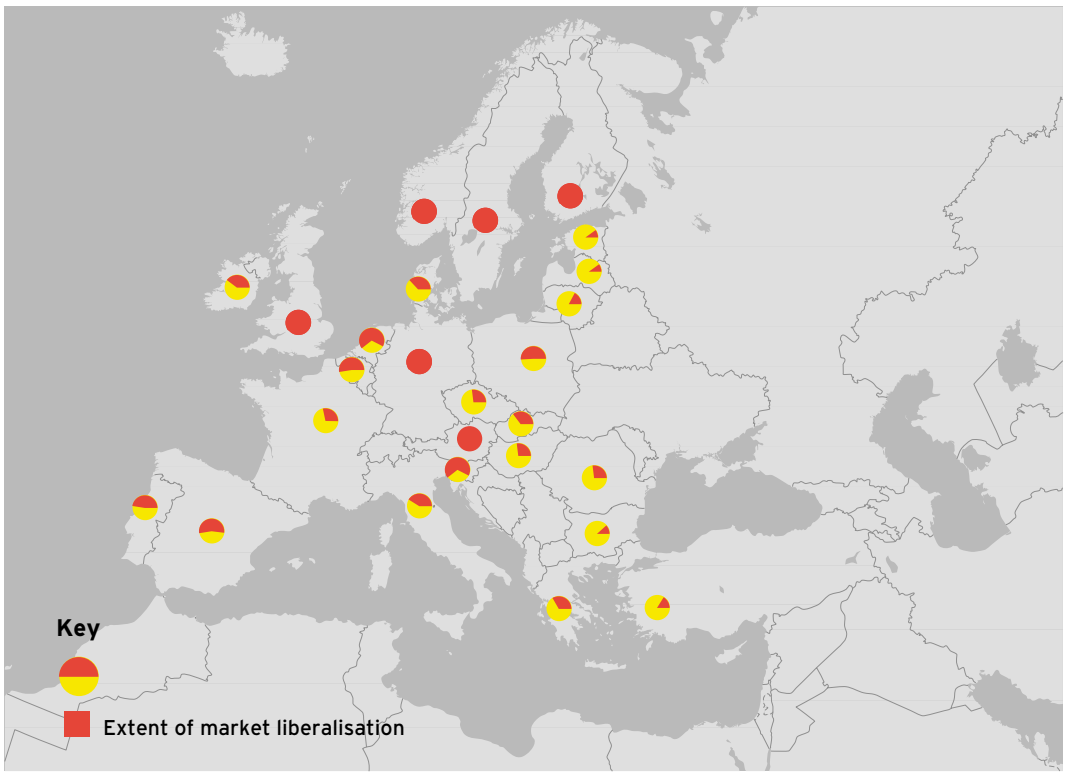
Source: ELES

Figure 23: *Price dynamics for the deviations of the expected electricity consumption from the operation schedule*

2.5 The international electricity market

2.5.1 Characteristics of the electricity markets in the European Union countries

The electricity markets in individual countries of the European Union have been liberalised gradually and in different ways. In 2002 the liberalisation of the Slovenian market had reached 66%, which is the average level of liberalisation among EU countries.



Source: European Comission

Figure 24: *Degree of the electricity-markets liberalisation in Europe at the end of 2002*

Requirements for the status of an eligible customer in the EU countries:

Belgium	≥ 0.1 GWh/year
Denmark	≥ 1 GWh/year
France	≥ 16 GWh/year
Greece	≥ 1 kV
Ireland	≥ 1 GWh/year
Italy	≥ 9 GWh/year
Luxemburg	≥ 20 GWh/year
Netherlands	≥ 3x80 A
Portugal	≥ 1 kV
Spain	≥ 1 GWh/year

In 2002 the requirements for the status of an eligible customer varied among the different EU countries. In some countries the requirements were determined by the total annual consumption of eligible customers, while in other countries it involved the voltage at the connection point, or the power of electrical current.

The EU countries are introducing the requirements of the directives for a uniform electricity market in different ways. This not only results in different degrees of liberalisation of the markets but also of separation of services, the ways of regulating and determining the network-use prices, the settlement conditions, the power outputs of the energy companies and so on.

The most competitive and liberalised markets are in Great Britain, Finland, Spain and Sweden. All these countries practice unbundling and deregulation, and they have on average lower network prices and more flexible conditions for settlement and entry into the market. Furthermore, the largest producers in Great Britain and Finland are not so dominant, with the largest three companies in each country producing less than half of the total electric energy.

2.5.2 Difficulties with the liberalisation of the markets

The complete market liberalisation in individual EU countries will lead to a common electricity market. However, the following difficulties have to be avoided in order to achieve this aim:

- differences in the market-liberalisation rate reduce the advantages for the consumers, which increases the prices for the tariff customers. The differences in the market-liberalisation rate remove the equal status of the competitive companies on the market, mainly due to the possibility of cross subsidising during the transformation of the companies from the domestic to the EU-market sellers;
- non-compatible network-use tariff rates have a negative effect on establishing competition. Inappropriate division of energy activities and insufficient regulation result in poor transparency, which tends to result in non-compatible network-use tariff rates;
- too much power in the hands of individual electricity producers has a negative influence on the operation of organised electricity markets and on the balancing of electricity markets;
- an insufficient international connection infrastructure between individual countries and ineffective methods for assigning free capacities also reduces the advantages of electricity-market liberalisation.

2.5.3 The effects of electricity-market liberalisation in the EU

2.5.3.1 Electrical-energy prices

A noticeable effect of the complete liberalisation of an electricity market is a drop in the price for electrical energy. Typically, the prices charged to eligible customers in the EU countries dropped about a year after the official deregulation of the market. The most significant price reductions were observed in Austria, Germany, Great Britain, Finland and Sweden. These countries completely liberalised their electricity markets.

In those countries that liberalised their markets only for some consumers the tariff-customer prices increased. This comparison is not, however, complete, because some countries (Italy, Ireland) changed the classifications of some of their customers.

The next figures present the prices for some customer groups. The prices are calculated by applying the Eurostat methodology and do not include taxes.

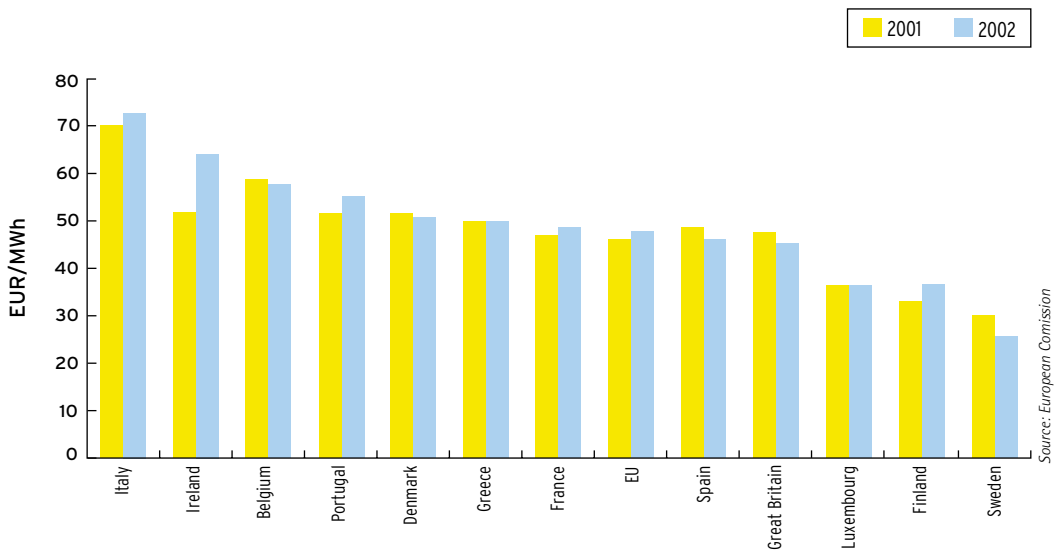


Figure 25: *Electricity prices in the EU countries for industrial customers with a consumption of 24,000 MWh per year*

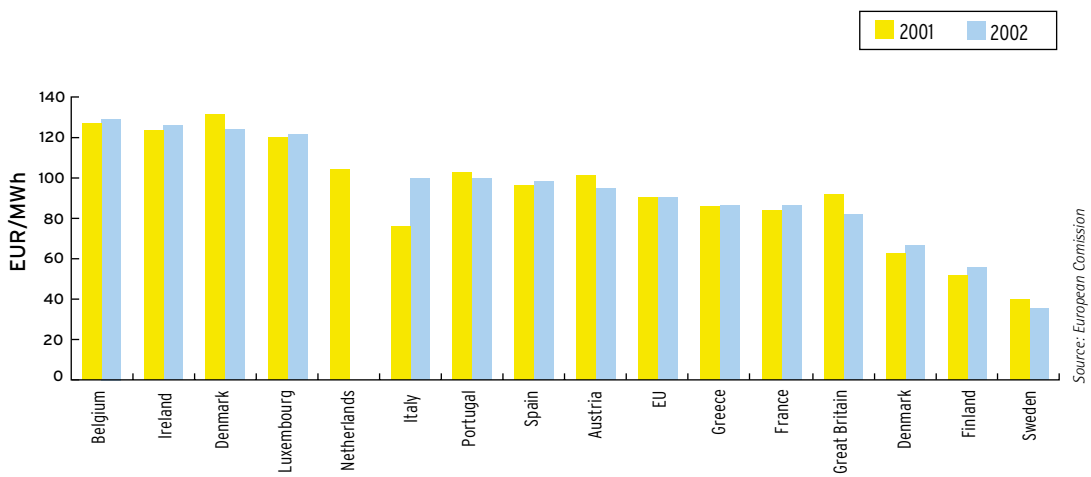


Figure 26: *Electricity prices in the EU countries for industrial customers with a consumption of 50 MWh per year*

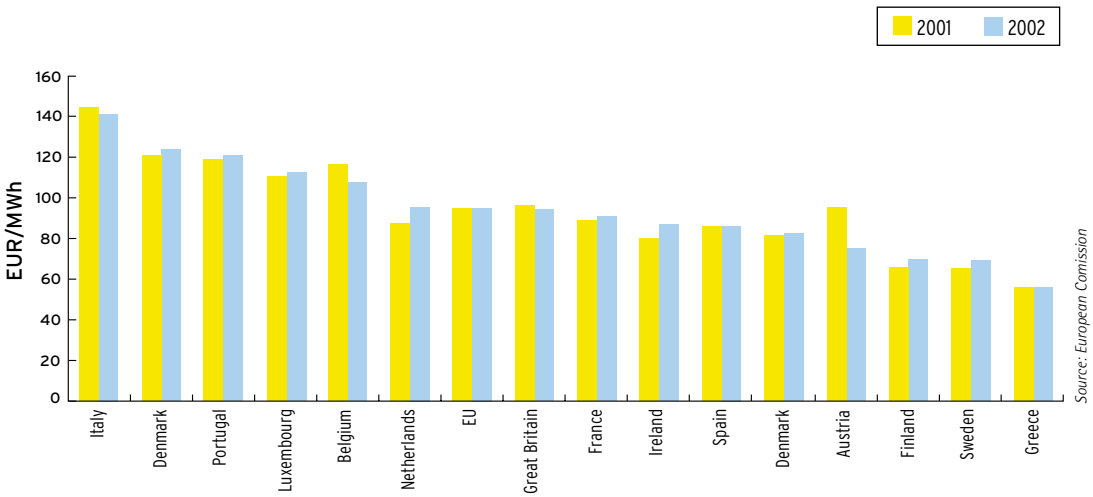


Figure 27: *Electricity prices in the EU countries for household customers with a consumption of 3.5 MWh per year*

2.5.3.2 Supplier substitutions

One of the advantages of market liberalisation is the possibility to change supplier. Such changes are more common in markets that have been liberalised for a longer period and with larger customers, who tend to possess more in the way of negotiating power. Smaller consumers cannot take advantage of the competitive conditions on the markets that are not completely liberalised. For example, in Denmark, Great Britain and Italy, about half of the eligible customers have changed their suppliers, whereas the figure for Belgium and Portugal is only about 5%.

2.5.4 Network-use prices

Different conditions prior to liberalisation of the market in particular countries have had an influence on determining the network-use prices. The basis for determining these prices is the separation between the transmission and the distribution networks, and a consideration of their characteristics. For example, the price determination in Austria or Germany is completely different from the price determination in France or Ireland. In the former case there are many regional transmission companies and local distribution companies, while in the latter case only one company controls the transmission and maybe even the distribution.

The highest network-use prices among the EU countries are in Germany and Austria, with Luxemburg being just above the average. It is generally believed that these high price levels are connected with the insufficient separation of services.

2.5.5 Cross-border trading between the member countries

The acceptance of the EU directives for controlling congestion by using cross-border transmission lines in 2002 was an important event for the electricity market. The directives were accepted at the 6th forum of the EU-countries regulators in Florence.

The EU countries use 24 interconnections, or cross-border transmission lines, of which half are always or very often occupied. However, five of the lines are only sometimes occupied, while seven of the lines are rarely or never used. The busiest lines are between France and Italy, Austria and Italy, and Switzerland and Italy.

Actual cross-border electricity trading in 2002 represented only 9% of the total electricity consumption in the EU. This means a competitive electricity market within the EU is still far from being fully realized.

The advantage of the market system for assigning the cross-border transmission capacities over other methods is that it can be monitored. However, it is based on only 12 interconnections. The participants on other interconnections claim that the market system cannot be always introduced due to the large number of parties involved (at least two transmission operators and two regulators), which makes negotiations and reaching agreements relatively difficult to achieve. Different opinions about the abilities and mutual influences of the interconnections are big problems in some places (mainly between France and Italy, and between Switzerland and Italy).

2.6 Summary

Consistent operation of the energy services in accordance with the EL was carried out for the first time in 2002.

There were no important changes in the field of electricity production or in the total production of the nuclear power station belonging to the Republic of Slovenia. The qualified producers produced only 2.1% of the total electrical energy, but there is a trend towards growth in this sector. The largest producer, as well as supplier, of electrical energy in 2002 was Holding Slovenske elektrarne, which finished the fiscal year with a considerable net profit.

A long-term development plan is the upgrading of all 220-kV facilities to the 400-kV voltage level. There were no important interventions on the transmission network. Upgrades of the cross-border interconnections, mainly with Hungary, are planned.

In 2002 all five distribution companies became aware of the advantages and difficulties associated with the market. They were very limited by the prices charged to the tariff customers, which is the main reason for their negative financial results.

A new price list for the network charge was published last year. It was prepared by the agency on the basis of the assessment of the regulated-services business, namely eligible costs for the operation and development of the network infrastructure, and the planned consumption. In 2002 the agency prepared and enforced a new regulative framework, which determines the network charge for the period 2003-2005 by using a new method. This method is also applied by the regulators in the EU countries for determining the eligible-costs criteria.

Borzen, the market organizer, finished the fiscal year with a profit. There were two segments of electricity trading: the daily market and the preferential dispatch market, which together form the organised market. This is the basis for the calculation of the Slovenian electricity-trading index. Trades on the organised market contributed, on average, 2.2%, and in the last two months of 2002 as much as 4.8% of the total monthly consumption of electricity in Slovenia. The traders and suppliers bought most of the energy on the basis of long-term bilateral contracts with the electricity producers.

The advantage of the possibility to change the supplier was taken up by 138 of a total of 6,984 eligible customers.

Cross-border trading was limited during the past year. The ability to export was represented by the availability of the cross-border transmission lines. The right to import electricity was given to just some of the larger consumers, by a governmental conclusion. Already in 2001, the Government of the RS specified the amounts of electricity that particular consumers could import in 2002.

In 2002 the electricity prices for eligible customers were already influenced by the market rules, while the prices for the tariff customers, set by the Government, were actually lower than in 2001, if inflation is taken into account.

3 THE NATURAL-GAS MARKET

3.1 Preparations for the liberalisation of the natural-gas market

3.1.1 The process of the liberalisation of the energy market

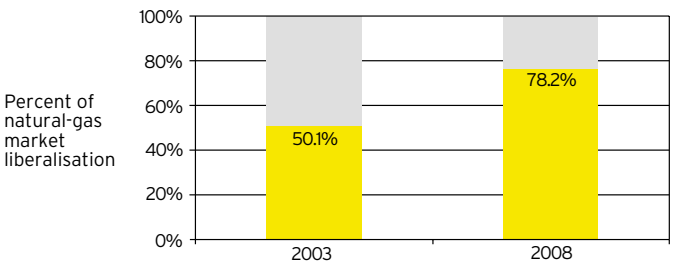
In 2002 the natural-gas supply was organized as a number of public services. The transmission-system operation and the natural-gas transmission are mandatory public services of the state, while the distribution-network-operation and the natural-gas-distribution services are supposed to be local PSs.

In 2002 the dynamic process of liberalising the electrical energy market in Slovenia was followed by preparations for the liberalisation of the natural-gas market. In this period there were still no important changes for the natural-gas market participants, however, in accordance with the requirements of the EL, preparations for market liberalisation for the eligible customers, starting on 1 January 2003, were in progress.

The EL and the corresponding executive regulations distinguish between natural-gas trading and natural-gas transmission on the transmission and distribution networks. On 1 January 2003 the customers that consumed more than 25 million cubic meters of natural gas per year at a single consumption point, or that use gas for producing electricity, obtained the status of eligible customers. They are able to choose their natural-gas suppliers, although they have to provide for the transmission of the gas to their consumption points.

In 2002 the agency analysed the gas markets in the EU and EU-partner countries and also prepared the solutions of eventual disagreement regarding the network access and prices. It informed the companies and local communities about the market mechanisms, opportunities and risks. The agency gained knowledge and experiences, which suggested that a strong collaboration between the state bodies and other market participants was required. The agency identified the most important obstacles for the natural-gas-market operation in Slovenia. It was found that the processes of liberalization and the separation of the transmission and trading services will need to be more intensive. It is of particular importance to provide transparency, which is the basis for a really competitive market. The agency also provided information to the companies that obtained the status of eligible customers on 1 January 2003. All of these 20 companies in Slovenia are directly connected to the transmission or main pipeline network.

Figure 28 shows the number of customers that became eligible customers on 1 January 2003, and the expected number of the eligible customers for 2008.



Eligibility limit	>25 mil Sm ^{3}	>5 mil Sm ^{3}
Number of eligible customers:	20 (9+11)	46 (5+41)
Production of electricity (gas):	9	5
Industry:	11	41

Figure 28: *The anticipated extent of natural-gas-market liberalisation*

3.1.2 Tariff system for the transmission network

The tariff system directly influences the investments of the distributors and the customers. It is important for the national interest of the country too, because of the stimulation of an increased consumption of natural gas, which is ecologically the most acceptable fossil fuel.

Since the market has not yet been liberalised, the supply of natural gas was regulated on the basis of a tariff system for the sale and supply of natural gas from the transmission system (Official Gazette of RS, No. 50/97 and Official Gazette of RS, No. 60/98).

In 2002 the agency contributed opinions and suggestions regarding the preparation of the executive regulations. One of the most important contributions is the tariff system for the supply of natural gas to the tariff customers on the transmission network, which the EL specifies as the task of the transmission operator. The tariff system for the tariff customers was enforced on 1 January 2003, while the eligible customers have to negotiate the prices for gas and for the use of the networks with the suppliers and the network operators. The old tariff system has not been valid for the eligible customers since 1 January 2003. The new tariff system is also not valid for the eligible customers due to the principle of the negotiated access of the third party that came into force on the above-mentioned day.

In 2002 all the customers on the transmission system, namely the distributors and industrial customers, actively participated in the preparation of the new tariff system for the supply and consumption from the transmission network. The agency, as an independent observer, made efforts towards the passing of the optimum criteria for the formation of the tariff system. The tariff system for the supply of natural gas to the tariff customers from the transmission network was published on 14 November 2002 (Official Gazette of the RS, No. 96/02).

3.2 Natural-gas supply in 2002

3.2.1 Types of natural-gas supply

The natural-gas transmission and the transmission-system operation in Slovenia are performed by Geoplin, d. o. o., Ljubljana. Geoplin is the only natural-gas supplier that supplies industrial customers on the transmission network, as well as the gas-distribution companies. Almost all their gas is imported (99.5%). The distribution companies supply industry, which is connected to the distribution network, and households.

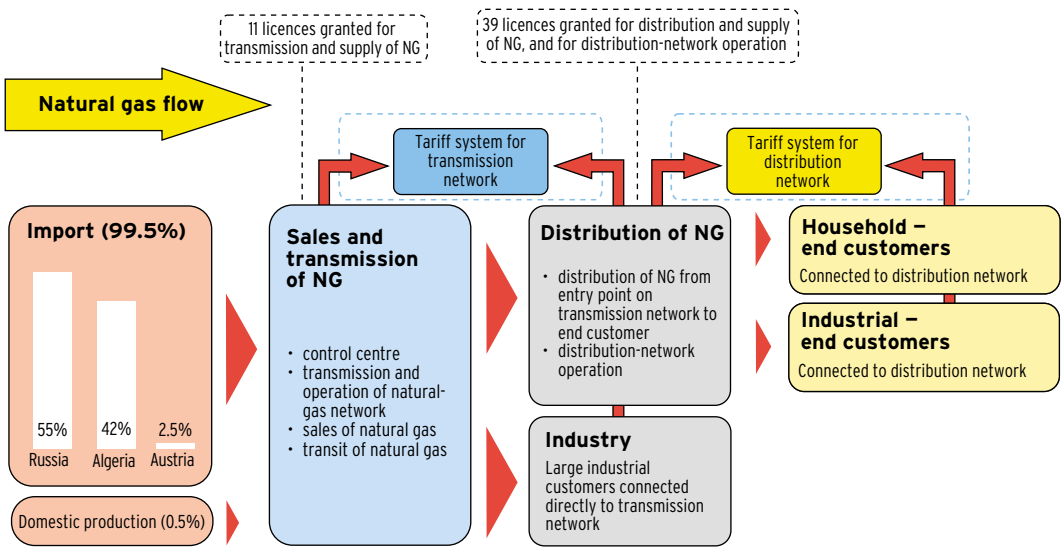


Figure 29: *The type of the natural-gas supply in 2002*

3.2.2 Transmission pipeline network

Geoplin operates and owns a 960-km-long pipeline, which is part of the European pipeline network. The central part of the Slovenian pipeline network consists of the main pipeline from Ceršak to Rogatec (M1), from Rogatec through Podlog to Vodice (M2) and from Rodne to Novo mesto (M4), with a nominal pressure of 50 bar, and the main pipeline from Šempter pri Novi Gorici to Vodice (M3), with a nominal pressure of 67 bar.

Its suitable geographic position means the Slovenian pipeline can be connected with neighbouring countries (Italy, Austria and Croatia). These connections are very important because Slovenia has to import nearly all of its natural gas due to a lack of its own gas resources.

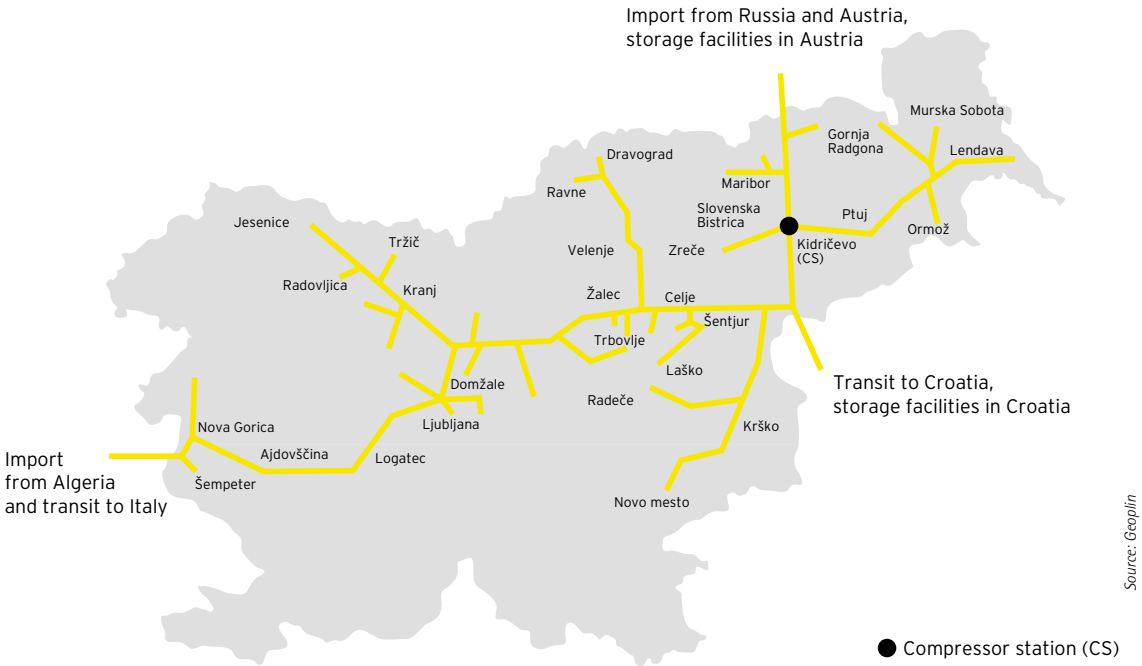


Figure 30: *Slovenian transmission pipeline network*

In 2002 Geoplin expanded and maintained the transmission network, as well as connected new customers. It built the connecting pipeline and the gauge-regulation station Splošna bolnišnica Maribor (Maribor General Hospital), and completed the reconstruction of the following stations: Metalna in Senovo, Ytong - Siporeks in Kisovec, TVT Boris Kidrič in Maribor, Ljubečna in Ljubečna, and the gauge-regulation stations in Ormož. All the reconstructions were performed as a result of the increased gas consumption.

There was a lot of maintenance performed in 2002, with a tendency to replace the system equipment. The replacements were necessary to reduce the amounts of escaping gas and its influence on the environment, noise in the gauge-regulation station, and the emission of the gases in the air. Eleven boiler-rooms at the gauge-regulation stations were renovated. All the work was performed on time and in agreement with the customers.

The activities of other operators involved extensive, and often unexpected, work involving moving the pipelines. The reconstruction at HPS Vrhovo required moving the R42 pipeline. Reconstructions were performed on the pipelines in Solkan, Kranj, on parts of the pipeline networks in Maribor and Ljubljana and on the R44 pipeline in Drnovo. In 2002, five preferential repairs to the main pipelines, M2 and M3, were carried out.

The operator of the transmission pipeline ensured an undisturbed supply during the maintenance. All the important maintenance work on the 960-km-long pipelines, and on more than 300 pipeline-network facilities, was performed.

3.2.3 Reliability of the natural-gas supply

In 2002 reduced supplies of Russian gas were occasionally encountered, and these interruptions were not announced in advance. The supply was reduced on 67 days by between 1 and 20% of the amount in the contract. The reductions were caused by operational maintenance work on the transition pipelines in the Ukraine. The supply of Algerian gas was reduced on 31 days due to operational problems on the Algerian side and due to unexpected maintenance work on the transition system in Tunis. The supply was reduced by up to 60% of the contracted amount.

The reductions in the supply of gas did not cause a disruption to the supply because the shortfalls were replaced with gas from pre-paid storage in Austria and Croatia.

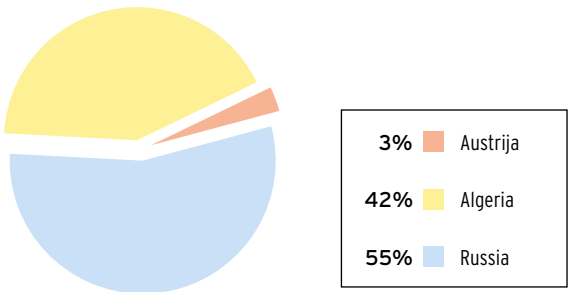


Figure 31: *Natural-gas-import chart for Slovenia in 2002*

3.2.4 Natural-gas consumption in Slovenia in 2002

In 2002 Geoplin sold 998 million standard cubic meters (Sm^3) of natural gas.

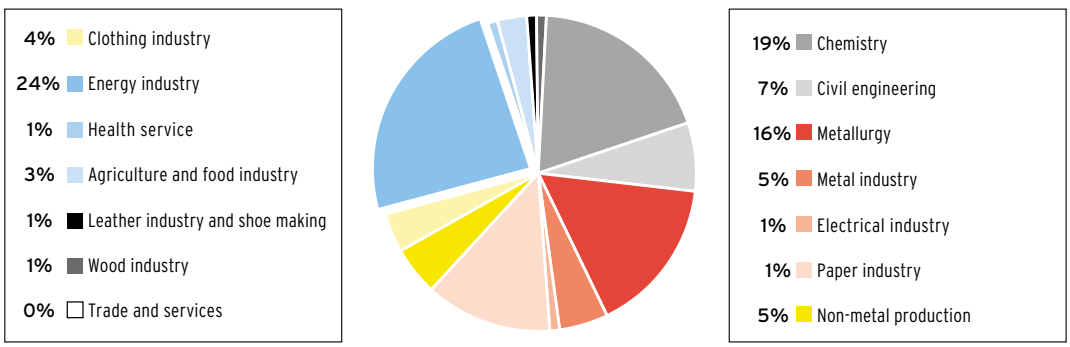


Figure 32: *Natural-gas sale chart in 2002*

3.2.5 Natural-gas prices

In 2002 the prices of natural gas were determined according to the ordinance relating to the average sale prices for natural gas from the transmission system (Official Gazette of RS, No. 109/2001). The ordinance specifies the model for determining the average total sale price for the natural gas from the transmission pipeline network without taxes. The model predicts a change in the basic price of natural gas every 15 days and every 3 months, taking into account the price dynamics for extra-light heating oil, petroleum and crude. The price is changed when the absolute difference between the calculated and the existing price is more than 0.4 tolars per Sm^3 of natural gas. The average sale price of natural gas does not include taxes, ecological taxes, excise and eventual commercial discounts. The average price in 2002 was 35.86 tolars per Sm^3 of natural gas.

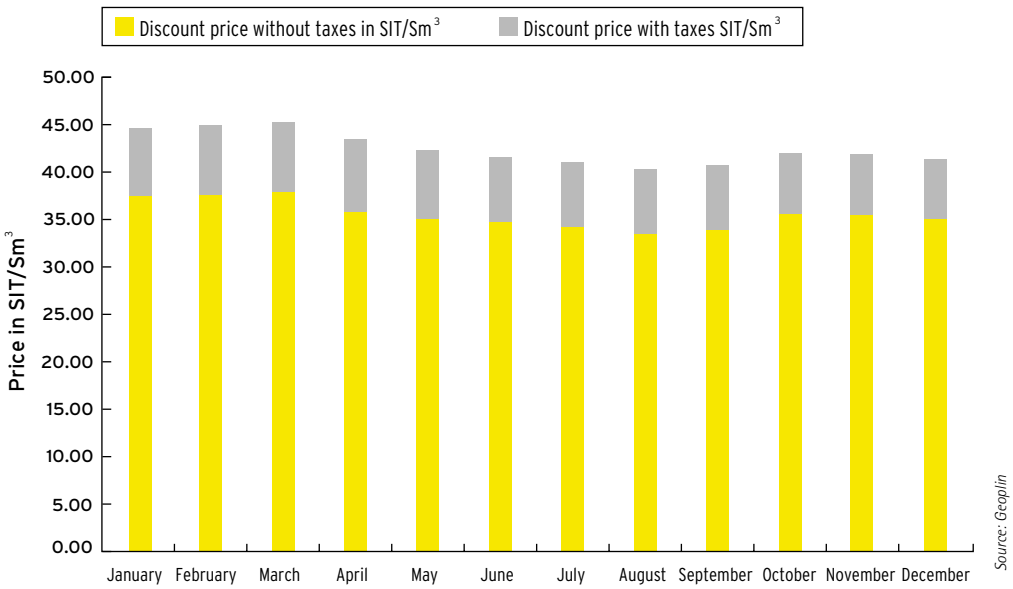


Figure 33: *Average-sale-price dynamics for the natural gas from the transmission network in 2002*

3.2.6 Natural-gas distribution

Geoplin supplies natural gas to 166 large industrial customers and to 16 distribution companies. These companies supply about 100,000 household customers. The largest distribution company is Energetika Ljubljana, d. o. o., which supplies more than 51,000 customers with more than 62 million Sm^3 a year. Other large distribution companies include: Plinarna Maribor, d. d., with about 25,000 customers and an annual consumption of about 40 million Sm^3 of natural gas; and Energetika Celje, d. o. o., with about 7,000 customers, who consume about 25 million Sm^3 of natural gas.

The number of local distributors has grown in recent years, with some of the public companies being directly owned by the corresponding municipalities. The distribution companies are completely regulated by the local community, which determines the basic rules and their duties in terms of concession contracts. Some distributors also perform other services, for example, the supply of drinking water or remote heating.

3.2.7 Licences

In 2002 the licenses for the transmission and supply of natural gas, and for the operation of the transmission system, were issued to the companies Istrabenz Plini, d. o. o., and to the public company Energetika Ljubljana, d. o. o. Altogether, the following 11 companies have licenses for the transmission and supply of natural gas and for the operation of the transmission system:

1. Petrol, d. d.,
2. Nafta Lendava, d. o. o.,
3. Geoplin, d. o. o.,
4. Energetika-ŽJ, d. o. o.,
5. Petrol-Energetika Ravne, d. o. o.,
6. Plinarna Maribor, d. d.,
7. Adriaplin, d. o. o.,
8. Savaprojekt, d. d.,
9. Istrabenz Plini, d. o. o.,
10. Energetika Ljubljana, d. o. o.,
11. Nafta-Geoterm, d. o. o.

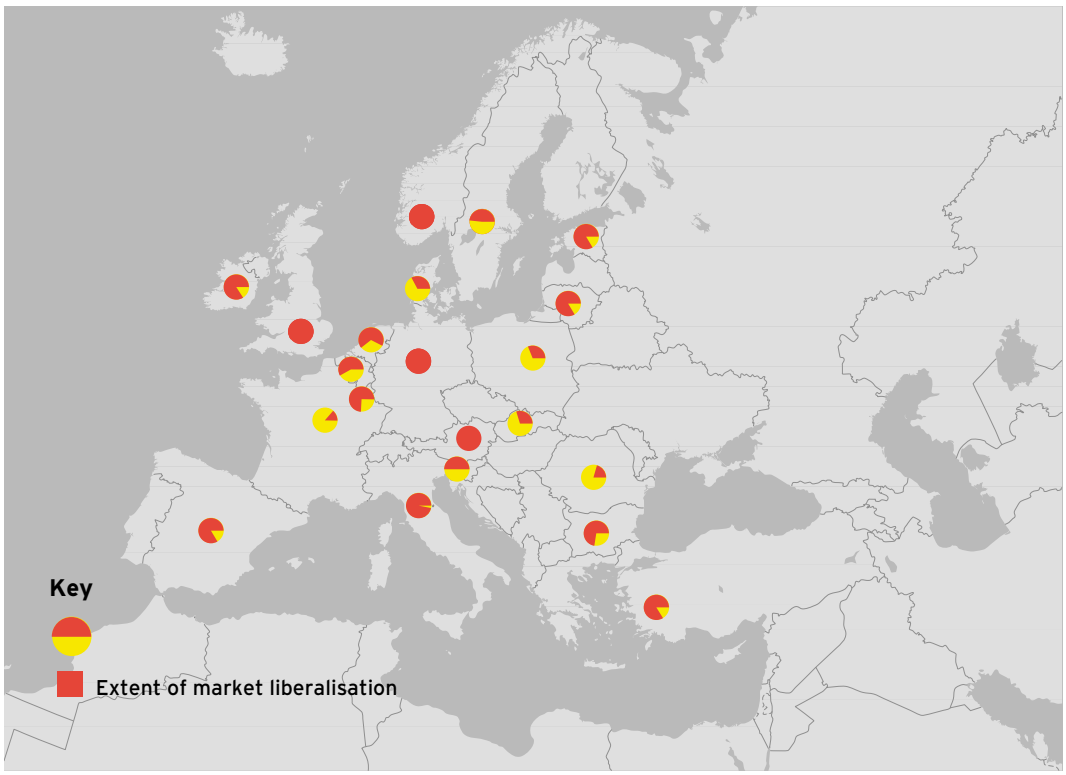
A total of 39 licenses for the distribution and supply of natural gas were issued by the end of 2002. The following companies obtained their licenses in 2002:

1. Istrabenz Plini, gases and gas technologies, d. o. o.,
2. Protim Ržišnik & Perc, architects and engineers, d. o. o.,
3. Plinstal, production, trade and services, d. d.,
4. Iskra SSD, repair services, d. o. o.,
5. Impakta, trade and engineering, d. d.,
6. Utility company Komunalna energetika Nova Gorica, d. o. o.

3.3 The international gas market in the EU

3.3.1 Degree of market liberalisation

In 2002, energy-market liberalisation was complete in the following three EU countries: Austria, Germany and Great Britain. Complete market liberalisation is supposed to be achieved by 1 July 2007.



Source: European Commission

Figure 34: *Degree of natural-gas-market liberalisation in the EU countries for 2002*

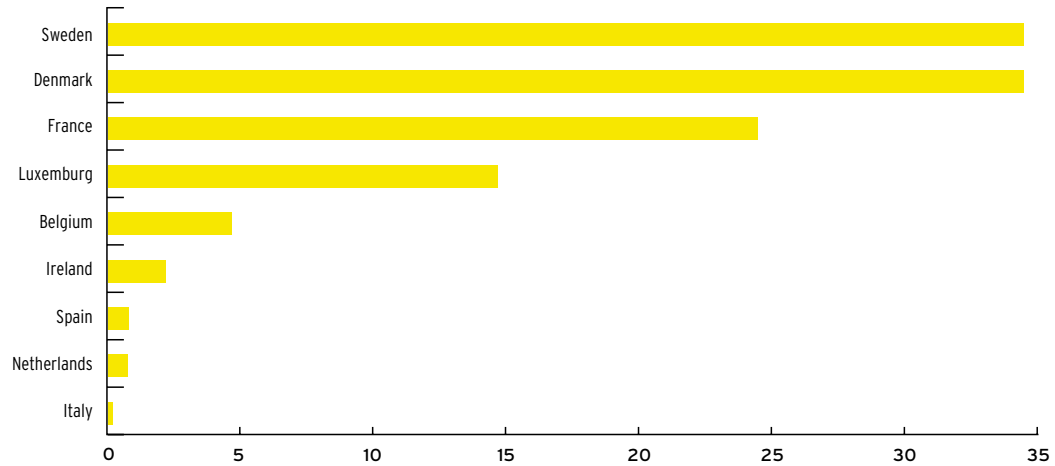


Figure 35: *Requirements for obtaining eligible-customer status in the EU countries – the smallest consumption in mil m³*

3.3.2 Effects of natural-gas-market liberalisation in the EU

3.3.2.1 Price of natural gas

The price of natural gas depends on the conditions on the world petroleum market, which makes a comparison over many years relatively difficult. Based on the experiences of the EU countries, a complete liberalisation of the natural-gas market results in a drop in prices for all customers. A drop in the prices for large customers can be balanced by higher prices for the tied customers in the case of a partly liberalised market. In 2002 the prices for natural gas fell significantly due to the lower prices for petroleum on the world market.

3.3.2.2 Price for the use of pipeline networks

The prices for the use of pipeline networks in the EU countries are not uniform. The Madrid forum of the natural-gas regulators in the EU countries recommends the entry-exit method for the calculation of network-use prices. This method, which stimulates competition on the natural-gas market, is used in Great Britain, Italy, the Netherlands and Ireland.

3.3.2.3 Substitution of the supplier and access to the pipeline network

The differences in the way the transmission and distribution companies are organised arise from the different ways in which they developed. In some countries there are more national and regional companies, and a lot of small, local distribution companies (Germany, Italy, Austria), while other countries (Great Britain) have only one national transmission and distribution company.

Difficulties in substituting the supplier is typical for countries where the markets are not liberalised, or only partly liberalised, because there the customer buys an amount of gas for the whole year and cannot break the contract during this time. This limits the number of new participants on the market, and hence the possibilities for substitutions. The capacities of a pipeline network can be bought for a shorter period only in the countries that apply the entry-exit method. The number of supplier substitutions is the highest in these countries.

A slow liberalisation of the natural-gas market also causes a gradual acceptance of the changes by the customers, who are not always inclined towards supplier substitution. Even on a completely liberalised natural-gas markets, like in Great Britain, just a little more than half of the industrial customers have changed their supplier since the energy-market liberalisation. The rate of supplier substitutions is related to the degree of market liberalisation and varies from country to country. In Austria, Germany, Luxemburg, Sweden and Denmark less than a tenth of the suppliers have been substituted, in Spain, Italy, France and Ireland about a quarter of suppliers have been substituted, while in Great Britain this rate is about 50%.

3.3.2.4 The structure of the market and cross-border trading

Most of the EU countries depend on imported natural gas from rare sources. The EU stimulates trading and the establishment of competition in particular countries. The trade is still very limited due to the different tariff rates for transmission lines, and there is a lack of the information about the free capacities of the cross-border pipelines. Some investigations show that a transmission can become congested between France and Spain, while according to the association of the gas-transmission operators, Gas Transmission Europe (GTE), 42% of cross-border pipelines have little or no free capacity. Different opinions about free cross-border transmission pipelines arise from the non-transparent methods used for the calculation of the free capacities and the different mechanisms for settling the differences.

3.4 Summary

In 2002 there were no important changes in the natural-gas supply, however, the agency has prepared the ground for the introduction of the liberalisation process in 2003.

The natural-gas supply was organised in terms of mandatory public services, namely the PS for the transmission-system operation and the PS for the natural-gas transmission. In addition, there are optional local public services including the distribution-system operation and the natural-gas distribution. The supply from the transmission system was carried out according to the tariff system, which was published by the transmission company in agreement with the government.

The natural-gas-transmission and transmission-system-operation services are provided by Geoplin, which is the only natural-gas supplier, obtaining its gas almost exclusively from abroad.

The number of the licenses that have been issued for the distribution of natural gas indicates the economic importance of this service. Some of the public companies are owned by the municipalities that they supply. The regulation of the distribution companies is the responsibility of the local communities.

In 2002 a lot of maintenance work was carried out on the pipeline network and on various facilities. In addition, some new facilities were constructed. The reliability of the supply was high, in spite of the unexpected interruptions in the supply of the Russian gas, and in spite of the problems with the supply of the Algerian gas. The shortfall in the gas supply was replaced by gas from pre-paid storage in Austria and Croatia. As a result, customers were not affected by the reductions.

4 REPORT ON THE WORK OF THE ENERGY AGENCY OF THE REPUBLIC OF SLOVENIA IN 2002

4.1 Introduction

This report on the work refers to the second year of operation of the Energy Agency of the Republic of Slovenia. It describes the accomplished tasks, which were defined in the Working Program and in the Financial Plan of the Energy Agency of the RS for 2002. Both documents were approved by the Government of the RS during its 54th session on 13 December 2001 by accepting the items 18 and 17 of the agenda.

In 2002 the agency prepared the requirements for further liberalisation of the electricity market and for the beginning of the natural-gas-market liberalisation in 2003. The agency operated in areas relating to all energy services, particularly from the point of view of license-issuing and the collecting of data relating to licenses. The agency was also involved in all the other services that are required for a successful introduction of a liberalised energy market in Slovenia.

4.1.1 The energy market and the role of the regulator

The agency operates as an independent organization that undertakes certain tasks as defined by the law. It is also involved in activities related to the control of the electricity and natural-gas markets. The agency also has to set in place the conditions for a transparent operation of the market, so making it equal for all the participants.

The vision of the agency is to help define the aims of Slovenian energy policy and to determine the strategy and the regulatory framework that will be based on the incentives for the energy companies, while taking into account the interests of the customers, and will, at the same time, lead to the realisation of those aims in the energy sector that have been adopted or passed by the state.

As well as being responsible for the effective operation of the energy sector, the agency also plays the role of coordinator. It acts in the common interest, and works to harmonize the aims of the state as well as those of the energy companies and the customers.

The working guidelines of the agency are: a professional approach, respect for the legal norms and a recognition of the equality of all energy-market participants. It must also be focused on protecting the environment, hence its long-term support for the activities involving renewable sources. The agency make sure that its operation is transparent.

4.1.2 Competences and tasks of the Energy Agency of RS

The Energy Agency of the RS was founded as an independent organization for the control of the electricity and natural-gas markets. The EL defines its tasks and competences:

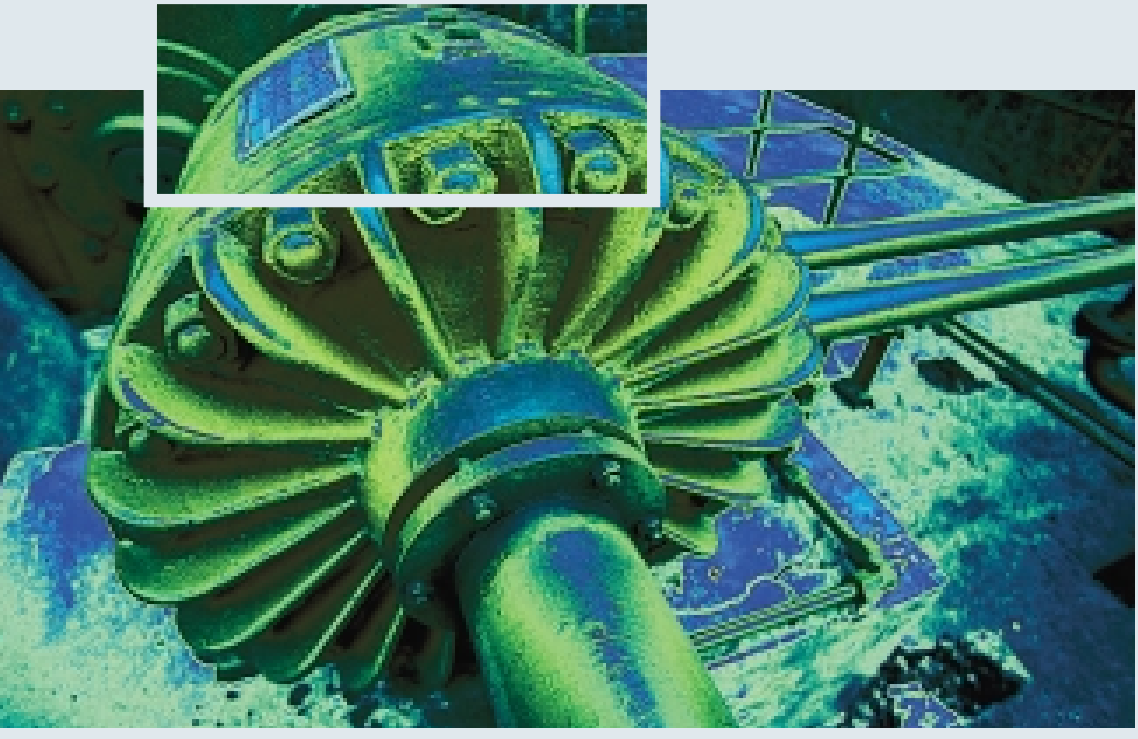
- With its general act, the agency sets the prices for the use of the electricity networks. It assesses the eligibility of the costs and other elements of the prices for electricity-network use on the basis of the data and the criteria for the assessment of the eligibility of costs.
- The agency makes decisions in disputes involving:
  - denial of access to the electricity or natural-gas networks,
  - determined prices for the use of the electricity and natural-gas networks.
- The agency issues the licenses for operating the energy services in agreement with the EL provisions and the corresponding ordinance.

In addition, the agency performs the following tasks:

- Collaborates with the competent bodies and inspections,
- Publishes annual reports and public information,
- Performs other tasks related to the control of the operation of the electricity- and natural-gas-market operations.

The agency collaborates in bilateral relationships and international organizations from the field of electricity- and natural-gas-market control.

The agency also performs other services related to the tasks specified by the law regarding the regulated services. It also investigates market-operation irregularities, which hamper competition and could lead to the abuse of a monopoly position.



4.2 Prices for the use of electricity networks

4.2.1 Introduction

The EL introduces market principles for the supply of electricity, particularly the right of a free choice of supplier for those customers whose connected loads exceed 41 kW. There are over 6,000 such eligible users in Slovenia, who together consume more than 66% of the total electricity. This is also the measure of electricity-market liberalisation, which is 66%. The other customers are tariff customers, charged on the basis of a tariff system. This declares the total price for the energy and the network use, as determined by the Government of the RS.

The final price of the supplied electricity consists of:

- the price of the electricity
- the price for using the network.

The production and supply (trading, brokerage and agent services) prices of electricity are, in accordance with the EL, determined by the market. The electricity for eligible customers represents a commodity that obeys the law of supply and demand. Eligible customers can choose their supplier of electricity (the contract relating to the electricity supply).

The price for the use of electricity networks (PUN) includes the charges for the non-market services, which cannot operate in a competitive way (natural monopoly). These are the services for the network operation, the transmission of electricity, the preferential dispatch (providing and ensuring the cogeneration of electricity from domestic, less competitive, and renewable sources) and others. The PUN is paid by the eligible customers (the contract relating to network access) and the tariff customers. The PUN is included in the tariff in the latter case. The PUN depends on the voltage level used by a particular customer. The PUN represents about 14.5% of the final price for a typical direct customer. However, this rate is about 25% for the customers from industry, and about 60% for household customers.

	Services	Service providers	Price-setting mode	Price-setting bodies
Market approach	Electricity production	Power stations	Market-based	–
	Electricity supply	Traders, agents, intermediators	Market-based	–
Regulated approach	Electricity transmission and transmission-system operation	PS Elektro-Slovenija	Defined by the Rule relating to price-setting for the use of networks	The Energy Agency of the RS
	Electricity distribution and transmission-distribution-network	Electricity- distribution PSs: Elektro Celje, Elektro Primorska, Elektro Gorenjska, Elektro Ljubljana, Elektro Maribor	Defined by the Rule relating to price-setting for the use of networks	The Energy Agency of the RS
	Ancillary-services provision	PS Elektro-Slovenija	Defined by the Rule relating to price-setting for the use of networks	The Energy Agency of the RS
	Preferential dispatch	PSs of tranmission and distribution of electricity	Defined by the Rule relating to price-setting for the use of networks	The responsible ministry (MESPE) - authorised by the Government of the RS
	Other supplements – operation of the Energy Agency of the RS	The Energy Agency of the RS	Defined by the Rule relating to price-setting for the use of networks	The responsible ministry (MESPE) - authorised by the Government of the RS
	Other supplements – keeping records of contracts made in the organized market	Borzen	Defined by the Rule relating to price-setting for the use of networks	The responsible ministry (MESPE) - authorised by the Government of the RS

Figure 36: *The list of responsibilities in the process of price-setting for electricity and the use of networks for the eligible customers*

The services to eligible customers are ensured by two contracts:

- the contract relating to the supply, which determines the price of the supplied electricity,
- the contract relating to access, which determines the other elements of the price.

The tariff system, which determines the total price for the energy and the electricity transmission, is still valid for the tariff customers (households, some of the public lighting, and some other customers). The supply to the tariff customers is provided by the public service for the tariff-customers supply (TCS PS) according to the EL and the corresponding ministry.

Services	Service providers	Price-setting mode	Price-setting bodies
Electricity supply	Tariff-customer-supply PS	Defined by the rule relating to the tariff system	The responsible ministry (MESPE)

Figure 37: *The list of responsibilities in the area of electricity price-setting for tariff customers*

The relations between the price components became transparent and they differ in terms of the voltage level at the point of consumption and in terms of the consumption group of the customer.

4.2.2 Network charges for the transmission and distribution networks

An important and wide-ranging part of the agency's activities is the determination of the network charges, because of the introduction of new economic regulations.

The network charge covers the costs of the infrastructure network (including the control, operation, maintenance and development of the network), and the losses in the network.

The economic regulations were introduced to guide and control the companies on the markets that were without significant competition, so as to protect the customers and other interested clients. The EL and the executive regulations provided an exclusive (natural) monopoly to the companies that perform public services, namely the regulated services related to the electricity network (transmission and transmission-system operation, distribution and distribution-network operation). Since there is no competition on the electricity market, the agency has to balance the interests of all participants, so that it simulates the effects of normal competition. A well-regulated regime has to provide equal opportunities and stimulations, similar to those on a real competitive market.

4.2.2.1 Methodology

On the basis of its acquired professional knowledge, the agency decided to introduce a three-year regulatory period – stimulating regulations represent a novelty in Slovenia. They provide equilibrium between the stimulations and the uncertainties due to the lack of available data. In the middle of the year the agency prepared a consultation document, which describes the methodology of the new economic regulation. The document was prepared in order to introduce the regulatory period effectively and it includes the information about the proposed regulations for the companies that perform regulated services, and for other interested participants. The document's proposal was made available to the public for their opinion. The agency received many comments and questions relating to the main decisions relating to the introduction of effective and feasible control. On the basis of the public response the agency accepted the methodology for a determination of the charges for the transmission and distribution networks, and criteria establishing the eligible costs in the first regulation period 2003-2005.

On the basis of the above-mentioned methodology the annual setting of regulated prices is not required. This makes the prices more stable and predictable. Using this price cap the agency intends to provide long-term business, without losses, to the companies that have a limited, reasonable profit.

The purpose of the economic regulation is to provide a reliable and economic business for the companies that provide the PSs in the field of distribution and transmission, and which are responsible for a reliable and high-quality electricity supply. For the first regulatory period the agency found many deviations between the present level of the incomes from the network charges and the level of the incomes specified by the new principles of the economic regulation.

A strictly applied methodology would result in a once-only, sharp increase in the network charge, and the agency was aware of the macro-economic effects and limits. Therefore, it decided on some deviations from the professionally justified methodology, and for a gradual introduction of this methodology.

It has to be understood that in the first regulatory period the PS does not receive all the required incomes due to the deviations from the regulation principle, which proposes a long-term lossless business with a limited, reasonable profit.

At the same time, the price has to provide the development of the network by means of an ever improving quality of the supply, which guarantees stable conditions on the electricity market.

The agency provides a reliable and high-quality supply of electricity by applying the mechanism of the PUN determinations. The agency has already limited the proposed increase of prices; hence it cannot further professionally defend the eventual new limitations of the price growth. In the case of new limitations it can also not take the responsibility for the conditions, which could affect the reliable supply of electricity and the PS operation.

The applied methodology on the basis of the price cap is generally accepted and used by many regulation institutions, either in the EU or other countries with a developed electricity market. The agency introduced the methodology, in detail, to the Ministry of the Environment, Spatial Planning and Energy (MESPE), the Ministry of the Economy (ME), Institute of Macroeconomic Analysis and Development (IMAD), and sent a copy to the Ministry of Finance (MF).

4.2.2.2 Calculation of the required income

The required income of the regulated services was, within the price-cap method, determined by considering:

1. eligible operation and maintenance costs,
2. amortization,
3. eligible costs for the electricity to cover the losses in the network,
4. return on the assets,
5. coverage of part of these costs from other incomes of the regulated services.

Ad 1) The agency determined the eligible operation and maintenance costs for 2003 on the basis of the cleared data from the profit-and-loss statements relating to the success of particular services, or on the basis of the realised costs for the period from January 2001 to June 2002. The agency also considered the demand for lower operation and maintenance costs regarding the comparisons with corresponding successful foreign companies.

The agency calculated the eligible maintenance costs by considering the demand for a reduction of these costs, because the regulated companies used to perform the maintenance works, which were actually related to the investments (increase of capacities, increased lifetimes) that were always limited. This was confirmed by the appraisers, who were assessing the values of the real estate, machines and equipment on 31 December 2001.

An average 80% efficiency of the comparable companies is required in the first regulatory period in order to reduce the differences in the efficiency between the domestic and foreign companies. The companies have to reduce costs by 4 to 9%, depending on their efficiency.

Ad 2) The amortization costs for the existing fixed assets are calculated on the basis of the data from the book-keeping data of particular companies.

The agency recognizes a 5% annual amortization or a 20-year lifetime for the new investments. Only 50% of the calculated amortization is taken into account for the new investments in the first year.

Ad 3) The eligible costs of electricity for covering the losses in the network are evaluated at a price of 8 SIT/kWh.

Ad 4) The return on assets is calculated on the basis of the average value of the regulatory assets base by considering 5.1% of the weighted averaged costs of the capital.

According to a fundamental principle of business finance, today's capital value equals tomorrow's current value, discounted by the opportunity cost of capital. The capital price means the expected rate of income for a particular investment that is demanded by the investors on the market. It is important to consider the capital value from a market point of view as an expected amount of income relative to the market price. The capital consists of various long-term financing sources. There are two capital components which form the capital structure of a company: the debt capital and the equity.

The price of the debt capital was estimated in terms of the average real rates of interest, which the regulated companies were able to achieve in the last period. Our estimate for the debt capital was 4.5%, by taking into account a considerable predictability of the companies.

The equity takes a larger risk than the debt capital, which makes its price considerably larger. The capital-assets-pricing model (CAPM) was chosen for the estimation of the equity price. The model is based on the assumption that the investor demands a higher return for more risky investments than for less risky, like the state bond. The CAPM measures the required degree of return using three elements: the low-risk degree of return, the coefficient beta and the market risk premium.

The parameters for the calculation of the equity price were obtained from the data for 31 August 2002, when the evaluation was taking place. The calculation of a discount rate has to be performed by applying high-quality data concerning the market risk premium, comparable companies, and other relevant information. As a result, data for the USA were adapted.

This approach required: the degree of the non-risk return, the coefficient beta, the market value of the risk premium, the fundamental discount rate on the basis of the CAPM and the adapted fundamental discount rate. The result was a 11.8% real required degree of the equity return.

The total capital-price, or the discount rate for the total invested capital, was determined on the basis of the determined prices of two major capital components by calculating the weighted-average-capital costs (WACC) of 9.29%.

The agency is responsible for the establishment of the normative rules of price regulation for the use of the electricity networks. The price regulation will influence the prices and the incomes, assessed by the new investors in the process of the privatization on the basis of the normative rules. Therefore, the costs of the debt capital and equity were estimated. The costs of the equity were not included in the required incomes due to a gradual transition to the new system of economic regulations. Hence, the price of the equity in the first regulatory period was considered to be at least as high as the price of the debt capital by taking into account the WACC in the financial model to be as high as 4.5% (after tax).

In the initial regulatory assets base, the current values of the tangible fixed assets and the intangible long-term assets of 1 January 2003 were taken into account. The values of the fixed assets, received for free by the companies, were subtracted, while the values of the new investments were added. The annual value of the amortization was also subtracted, and the final value of the regulatory assets base was calculated. The average value of the regulatory assets base, on which the return is considered, is calculated from the initial and final values.

Ad5) In the calculation of the required income, the agency took into account the coverage of some costs from other incomes and the incomes from the connection charges.

4.2.2.3 Investments

The investments are required to provide a stable supply of electricity because of the increased consumption and better quality. The recent fixed assets of the regulated services were 65% written off, which requires renovations. A low level of reliability and quality of the electricity supply is a result of too few investments in the development of the network in the past. There are still too many customers without a high-quality supply (too low voltage level, too many disturbances...).

The ordinance relating to the determination of the general requirements for the supply and consumption of electricity defines quantified demands for a more reliable electricity supply. The demands can be accomplished only by more intensive investments in the network and operation system. The proposal of the National Energy Program (NEP) also provides demands for more reliable and a higher-quality supply of electricity.

Investments in the development and improvement of the networks are also required due to an increasing consumption. These consider the enforced criteria and the predicted consumption growth.

An analysis was performed in order to prepare and to check the prediction for the consumption of electricity by distribution companies for the period 2003-2005.

The agency performed its own estimation for the investments on the basis of the investment plans of the companies for the regulatory period 2003-2005. The estimate by the agency is about 20% lower from the plans proposed by the companies. This estimate was harmonized with that of the companies. In the estimations for 2003 the agency considered investments of 21.9 billion tolars. It will be necessary to run a debt of 3.9 billion tolars in order to realize the planned investments by considering the available amortization fund of 15.6 billion tolars, and the difference between the return on the assets after paying the interest obligations and the difference between the required and settled income for 2003. The agency will monitor the technical and economic execution of the investments.

The longer-term efficiency of the investments will be determined indirectly, by tracing the pointers of the electricity quality.

Non-efficient investments of a particular company will be considered in the determination of the required income for the next regulatory period.

4.2.2.4 Settled income

In order to avoid a rapid price growth, the applied methodology for the determination of the network charges predicts the settlement of the income in a regulatory period to be done in such a way that the current net value of the required income equals the current net value of the settled income. The settled income for 2003 is 52.2 billion tolars, and this is 9.7 billion tolars lower than the required income.

4.2.2.5 Quantitative prediction of the electricity consumption

One of the input parameters for the determination of the network-use price is the predicted electricity consumption for the period of the price determination. The agency monitors the dynamics of the electricity consumption every month, broken down in terms of voltage levels and particular consumption groups for particular distribution or transmission companies. The agency prepared the prediction for the electricity consumption for period 2003-2005 on the basis of the analysis of the electricity consumption in the past, and on the basis of the expected growth of consumption in the future. The starting points from the arising NEP were considered too. The prediction of the consumption was also approved by the regulated companies.

4.2.2.6 Network charges

The requirement for changing the prices arises from the relation between the income estimate on the basis of predicted consumption and the prices from 2002 on one hand, and on the estimate of the settled income by considering the consumption predictions on the other. The required income was calculated from the planned value for the consumption of electricity and from the prices valid in 2002 by applying the price-cap method on the basis of the economic-regulation mode. The calculation indicated a requirement for a 15.03% growth of the network charges (for the transmission and distribution networks) in 2003.

Due to the requirement that inflation should be decreased before Slovenia joins the EU, the agency also considered macro-economic aspects when making its decisions; in collaboration with the IMAD it estimated the influence of the PUN growth on the inflation.

The IMAD and ME positively assessed the methodological determination of the network charge by the agency. A 7% increase in the prices for the tariff customers was found to be acceptable on the basis of the assessment of the structural-reforms influence on the price dynamics and inflation.

4.2.2.7 Correction factors

The agency also provided a calculation of the correction factors for 2003. The incomes of the distribution PSs in different regions differ from the required fund of a particular distribution company because of the uniform network-use prices paid by end users in the territory of the Republic of Slovenia, and different costs for providing the operation of the distribution PSs, depending on the customers' distribution, network density and other typical parameters. This calls for a settlement mechanism, performed by taking into account the correction factors for the transmission-network part of the network charge. The settlement is defined by the contracts relating to access to the transmission network. The contracts are made every year between the electricity-transmission PS and the particular distribution companies in accordance with the 42nd article of the ordinance regarding the changes and supplements to the ordinance relating to the electricity-transmission and transmission-system-operation PSs.

It follows that the prices of the transmission service are different for different distribution companies, by taking into account the correction factors. The prices are calculated as the products of the uniform network charge and the correction factor.

4.2.2.8 Simultaneous monitoring of the regulated services

Besides the monthly monitoring of the electricity consumption, the agency also monitored the element-resolved quantitative realization of the PUN, and performed various analyses. The agency also analysed the business of particular regulated services on the basis of their balance sheets for the periods January-June and January-September 2002.

4.2.3 Shares and supplements

4.2.3.1 The share for the ancillary services

The transmission-system operator has to provide the ancillary services, which are specified in the instructions for the system operation of the electricity transmission system (Official Gazette of RS, no. 46/02). The share of the ancillary services in the network-use price is devoted to covering the costs of the operator for providing the ancillary services of the secondary and tertiary frequency and power regulation, the voltage and reactive-power regulation and the ancillary service of a black start. The costs of the other ancillary services are covered from the network charge.

The agency assessed the costs of the ancillary services and determined the share of these costs, which is included in the PUN. The share for the ancillary services in 2002 was determined in a different way than in 2001, namely from the capacity charge for a particular customer.

The transmission-system operator is responsible for providing the required level of ancillary services obtained either from domestic or foreign suppliers. The suppliers of the ancillary services are the market-service operators, namely, producers, traders or bigger customers. On the other hand, the transmission-system operation is a regulated service and the share in the PUN for the ancillary services is set by the agency. In the rules relating to the changes and the supplements to the rules regarding the determination of the network-use prices (Official Gazette of RS, no. 109/02) the agency prescribed a procedure for the selection of the ancillary-service suppliers in order to provide better transparency of the procedure for a selection of the ancillary-services suppliers, which is performed by the transmission-system operator. The procedure is based on collecting offers from public tenders for particular ancillary services. The agency recognizes only the costs of the ancillary services that arise from the contracts made in accordance with the above rules.

4.2.3.2 The share for the operation of the Energy Agency of the RS

This share is specified in the financial plan of the Energy Agency of the RS for 2003, approved by the Government of the RS at its 101st regular session on 12 December 2002.

4.2.3.3 Supplementary costs for the preferential dispatch

In March 2002 the Government of the RS issued the ordinance regarding the rules for determination of the prices and for buying electricity from qualified producers. The ordinance provided a guarantee of the prices of electricity bought from qualified producers. The operators will cover the difference between the market price and the price guaranteed by the ordinance, with the supplement for the preferential dispatch. The supplement thus covered a part of the purchasing price for the electricity from the Thermal power station Trbovlje, Combined-heat-and-power plant Ljubljana and from all qualified producers.

4.2.3.4 Supplement for keeping records of the contracts on the organised market

In the proposal for the modifications of the PUN rules, the agency considered the supplement for keeping records of the contracts on the organised market that was as high as in 2002. This supplement is allocated for the operation of Borzen.

4.2.4 Network-use prices for high-voltage customers

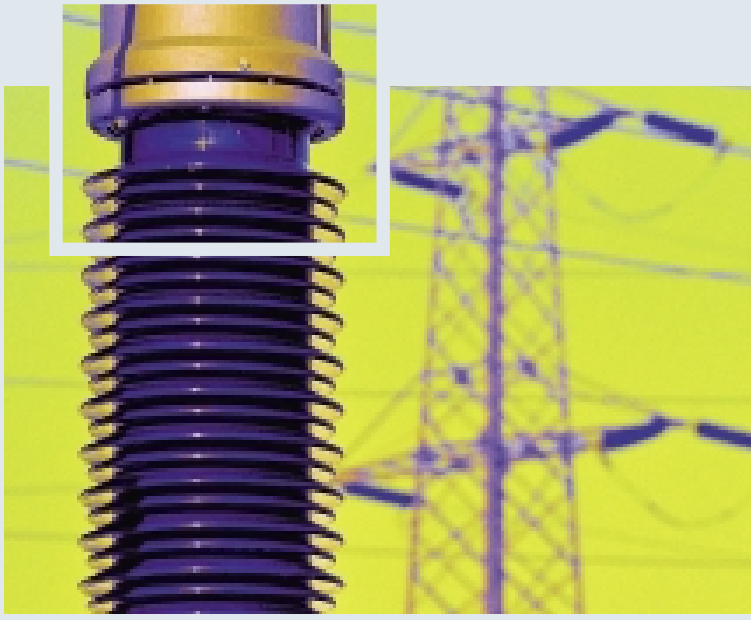
The most important feature here is the modification of the price list for the transmission-network use, which provides special consideration of the high-voltage (HV) customers. The aim was to prepare a price list that would stimulate an optimum use of electrical devices and services. The customers with more than 2,500 operational hours used to be considered as one uniform group within the old network-use price list. This group consumes more than 23% of electricity in the EPS. The group consists of industrial customers with different consumption characteristics. The eligible customers from Kidričevo, Ravne, Štore, Ruše in Jesenice were, in 2002, directly connected to the transmission network. The HV customer Salonit Anhovo was also included in the described analysis.

Two typical, different profiles of the customers (eligible customers with the base consumption of electricity, and eligible customers with adjustable electricity consumption) called for a further distinction to be made among the eligible customers. Two newly introduced groups, for the customers below and for customers above 6,000 operational hours, provide a more uniform financial stimulation of the customers.

4.2.5 Prices for network use during cross-border trading

In 2002 there were many important changes in the cross-border trading with electricity. The changes in the price lists were based on the following facts:

- On 1 January 2002 the Government of the RS partly liberalised the market for electricity produced abroad. The resulting increased use of the cross-border transmission resources required regulations in the field of import, export and transmission.
- In the first quarter of 2002 the European Transmission System Operators (ETSO) introduced a financial settlement mechanism. This regulates the settlements for the case of trading between the members of the settlement mechanism and introduces the injection fee for the border countries, which in 2002 also included Slovenia.



4.2.6 The quality of electricity supply and standardization

The active participants on the electricity market regulate the mutual relations on the basis of the rules approved at different levels. The agency participated in the preparation of various documents in order to play its role as the market controller.

Certain remarks were made on the Ordinance relating to general requirements for the supply and consumption of electricity, particularly on the articles regarding the quality of the operation service and the quality of voltage. The aim was to set the requirements for preliminary access. The details of the ordinance should not be in contrast with the quality »standards«, which will be prepared by the agency.

4.2.6.1 The quality of the electricity supply

In 2002 Brian Wharmby (the co-author of the report of the Association of European Regulators: Quality of Electricity Supply: Initial Benchmarking on Actual Levels, Standards and Regulatory Strategies) provided a study entitled Recommendations for a Quality Electricity-Supply in Slovenia. In the study the quality of electricity supply is divided into commercial quality, continuity of supply (reliability of supply), and voltage quality. On the basis of this study it will be possible to define the commercial quality, which refers to the relation between a company and a customer, for example, the longest response time to repair a customer's fuse will be set. The most important factor of the supply quality is the continuity of supply (reliability). Taking into account the results of the study, we will propose how to collect the data on the discontinuities and how to report about these data. The data will be applied to relate the network-use price and the quality of supply because the economic regulations can yield a considerable drop in the supply quality due to a decrease of the costs in the companies.

4.2.6.2 Standardization

The agency monitored the development of the standardization on the international level (IEC – International Electrotechnical Commission) as well as on the European level (CENELEC – European Committee for Electrotechnical Standardisation). The observed changes were also proposed for the Slovenian standardization system.

In 2002 the international technical committee IEC/TC 8 (Electricity Energy Supply Systems) modified or supplemented the scope of their activities. It will be engaged in voltage levels and their characteristics at the point of connections (generator- transmission network, transmission network, distribution network, etc.) In Europe this problem was thrust onto technical committee CLC/TC 8X (Standard Voltages, Current Ratings and Frequencies), which is in charge of the standard EN 50160 (Voltage characteristics in public distribution services). This technical committee also prepares a standard relating to flickers, transition overvoltages, and the relation between the power quality and electromagnetic compatibility. The agency proposed an active collaboration with the Slovenian standardization in this technical committee and an acquisition of all the documents in preparation.

4.2.7 The issuing of secondary legislation

4.2.7.1 The rules on the determination of the prices for the use of electricity networks and on the criteria for the eligibility of costs

On the basis of the work described in the sections 2.1 to 2.6, in 2002 the agency issued two modifications or supplements to the executive regulations:

1. In May the agency proposed modifications and supplements to the Rules on the determination of the prices for the use of electricity networks and on the criteria for the eligibility of the costs in the fields that are specified in the following. The modifications were required due to the dynamic changes in trading with electricity, and due to the early liberalization of the international electricity market. They were published in the Official Gazette of the RS, no. 48/2002, and have been effective since 1 June 2002.

2. In October the agency proposed modifications and supplements of the Rules on the determination of the prices for the use of electricity networks and on the criteria for the eligibility of the costs, which includes all elements of the PUN for 2003. The agency also prepared a well-founded proposal for the obligatory starting points of the contract regarding access to the transmission network. The agency submitted the documents, together with the respective grounds, to the Government of the RS for its consent or approval. On 12 December 2002 at its 101st regular session the government gave approval to the conclusions about the validity of the PUN and the correction factors for 2003. The modifications to the rules were published in the Official Gazette of the RS, no. 109/2002.

4.2.7.2 Other secondary legislations and regulations

The agency agreed to the Rules regarding the type of and requirements for the assignment, and the criteria for the access to the cross-border transmission resources, which was prepared by ELES and is already recognized.

The agency monitored the preparation of the secondary regulation regarding the general requirements for the supply and consumption of electricity. The agency provided its opinion about the customers' connections and the supply quality to the authors of the regulation. The secondary regulation Ordinance regarding the general requirements for the supply and consumption of electricity was published in the Official Gazette of the RS, no. 117/2002.

On the basis of the Ordinance regarding the general requirements for the supply and consumption of electricity the agency proposed the Conclusion on the determination of the average costs for connecting new network customers and for increasing the connection load of the existing customers. The agency completed this task in January 2003 and published the conclusion in the Official Gazette of the RS, no. 11/2003.

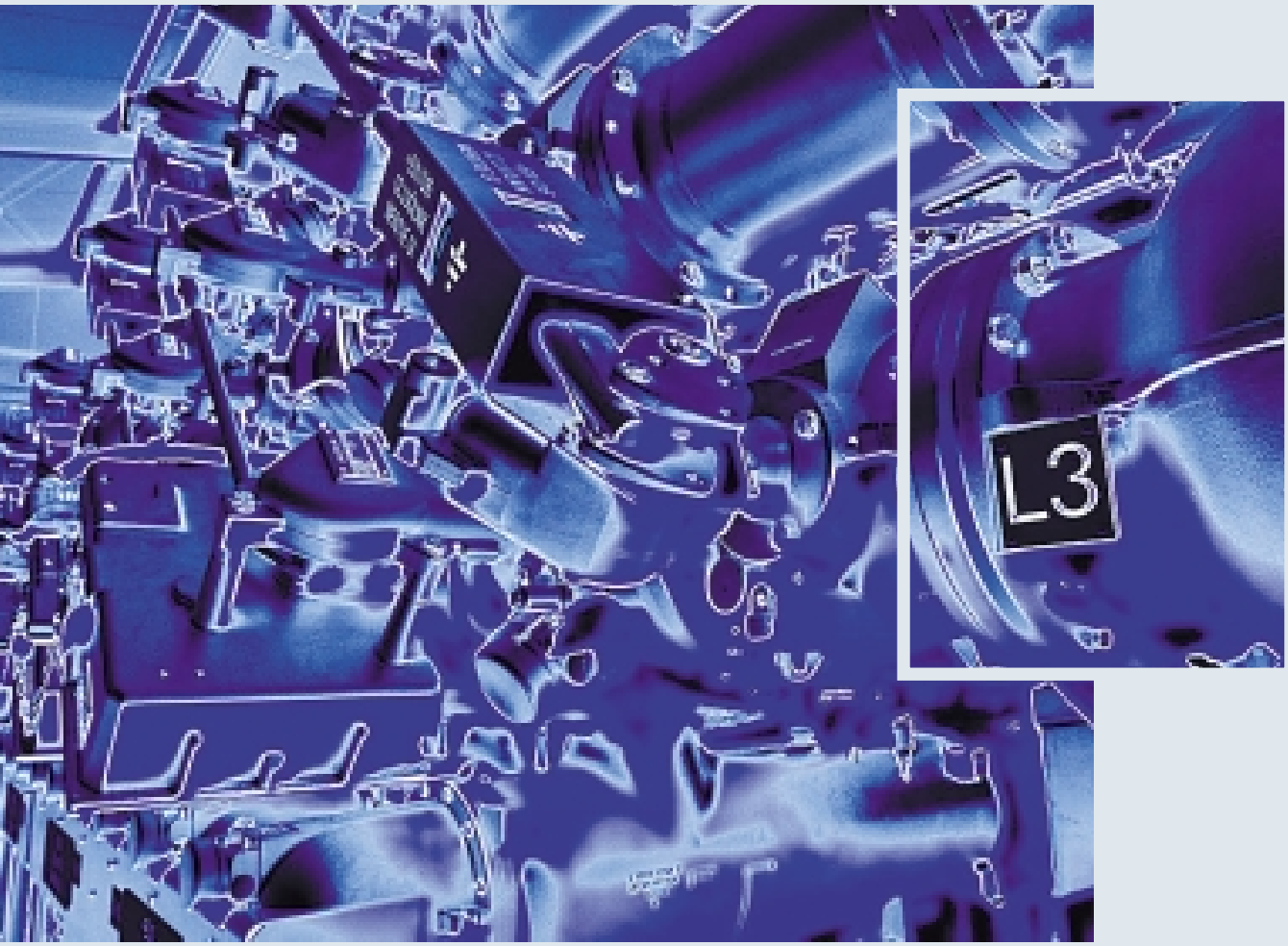
The agency contributed to the preparations of the proposal for the regulation regarding the quality of electricity. Due to formal legal reasons the regulation is mainly included in the Ordinance regarding the general requirements for the supply and consumption of electricity.

The agency collaborated in the presentations of the model for the determination of the deviations on the balancing electricity market. The presentations were prepared by the distribution companies, the producers of electricity and Milan Vidmar Electricity Institute. The model served as a basis for the proposal to the modifications of the Rules regarding the operation of the balancing electricity market, prepared by the ELES, as the transmission-system operator.

4.2.8 Seminar Directives relating to the setting of the price for the use of the electricity networks

The seminar was organised by the agency on 6 June 2002. The questions relating to the setting and the calculating of the prices for network use were presented. The participants learned from the agency representatives about the conditions in the field of the economic control during the partial liberalisation of the market, about the regulation of the PSs, among which was also the electricity distribution, and about the basis of the regulatory framework that is used in Slovenia. Dr. Konstatin Petrov, from Germany, talked about the regulation of the electricity market in Europe.

The seminar offered an opportunity for the regulated companies and other participants in the electricity market to learn about the introduction of market rules and about the control of the costs of those companies that perform monopoly services.



4.3 Activities of the agency related to the natural-gas market

In 2002 the agency completed some tasks in the framework of preparations for the liberalisation of the natural-gas market. This market was not liberalised before 1 January 2003. The agency prepared itself for the operation of its tasks and for the competences within this field. In addition to the simultaneous analyses of the conditions on the market, the agency is also competent for the preparations on the dispute settlement. The agency also informed the companies and local communities about the mechanisms of the natural-gas-market operation, and about the opportunities and risks implied by the market.

4.3.1 Preparations for the liberalisation of the natural-gas market

The public services used to provide the natural-gas supply in the past. The EL and the corresponding secondary regulations make a distinction between trading with natural gas, and the transport of the gas on the transmission and distribution networks. Customers with an annual consumption of more than 25 million cubic meters of natural gas at a single consumption point, or customers that use natural gas for the production of electricity, on 1 January 2003 obtained the status of eligible customer. This allows them to freely choose their natural-gas supplier, but they have to provide the transmission of the gas to their consumption points. The so-called declared access to the gas networks (nTPA) will be enforced in Slovenia, which means that eligible customers will have to make an agreement with a competent network-system operator about the conditions and prices for the use of the network.

The public services for the transmission-system operation and for the natural-gas transmission are mandatory national public services, while the distribution-network-operation and the natural-gas-distribution services are recognized as optional local public services. In 2002 the agency prepared itself for the liberalisation of the market by analysing the market activities in the EU and the accession countries. Experiences in the EU suggest that it is important to have good communication between state bodies, local communities and other market participants during the liberalisation of the market. It is for this reason that the agency organised the seminar.

4.3.2 Seminar on the liberalisation of the natural-gas market in Slovenia

On 7 November 2002 the agency organised a seminar about the liberalisation of the natural-gas market in Slovenia. The organisation of the seminar was stimulated by the new opportunities for natural-gas trading, which were prescribed by the EL in accordance with European directives. The seminar was attended by about 70 people from companies that operate in the field of transmission, distribution and supply of the natural gas. The representatives of local communities and corporations from among the biggest natural-gas customers in the country also participated in the seminar.

The main aim of the seminar was to inform the natural-gas-market participants in Slovenia about the new opportunities, as well as about new liabilities within the conditions of the liberalised market.

The legal and regulatory aspects of the market liberalisation in Slovenia were presented. The experiences of two EU countries where a liberalised natural-gas market already operates were also presented. Regulated access to the networks is enforced in Spain, where the government passed a programme for gradual liberalisation of the market by 2004. The experiences from the Netherlands are interesting due to the similarities with the model of the Slovenian market.

4.4 Dispute settlement

4.4.1 Dispute settlement in accordance with the Energy Law

The agency settles disputes on the basis of the provisions of the 87th and 88th articles of the EL and the corresponding provisions of the secondary regulations.

Disputes can appear due to:

- rejected access to the electricity or natural-gas networks,
- calculated price for the use of the natural-gas or electricity networks.

The extent of the dispute settlement is not a predictable task. It requires technical, economic and legal knowledge. According to the law the agency has to settle the disputes between the market participants and the PS related to the network access, and to the calculated price for network use. The agency provides an impartial settlement of the dispute for all market participants.

In 2002 the agency settled a dispute relating to rejected access to the public transmission network that arose as an appeal on the decision by the transmission-system operator. The third paragraph of the 27th article of the EL provides a possibility that the network operator denies access to the network in the case of technical or operational limitations in the network. The reasons for a denied access, supported by the proofs, have to be provided to the corresponding customer or the electricity producer. The customer whose access has been denied can appeal to the agency. In such a case the agency issues a decision within the statutory time-limit in accordance with the provisions of the Law regarding the general administrative procedure.

The agency prepared itself for the dispute settlement with help from the consultant experts of the Phare program, particularly in field of denied access to the natural-gas network. The agency keeps a record of disputes, with data on the subject and the outcome of the settlement.

4.4.2 Alternative dispute settlement

The agency can mediate in disputes not covered by the EL, if both sides involved in the dispute request it. The role of the agency is limited to the mediation in making an agreement between the parties involved. A party can resign from such a process at any stage of the dispute settlement. An eventual agreement between the parties is binding. This sort of the dispute settlement does not exclude a future court settlement.

For the first time the agency played the role of a mediator in a dispute related to the electricity market in 2002.

4.5 Licenses for the operation of the energy-related activities

The agency issues licenses in accordance with the 87th article of the EL.

In 2002 the agency issued 163 new licenses for the operation of the energy-related activities. The number of licenses, resolved into individual activities, is presented in Figure 38. The figure also presents the total number of licenses for particular activities, issued by the end of 2002.

In 2002 ten licenses were rejected due to the non-conformance with the requirements. In 2002 there were no withdrawn licenses and no appeals on the issued decisions and conclusions. All procedures related to the issuing of licenses were performed in accordance with the EL, the Law regarding the general administrative procedure, the Ordinance regarding the requirements and the procedures for issuing and revoking the licenses for the operation of energy-related activities, and other statutory acts and secondary regulations.

		Issued by the end 2002	Issued in 2002
1	electricity production in hydropower stations above 10 MW	3	–
2	electricity production in thermal power stations above 10 MW, except in nuclear power stations	5	–
3	electricity production in nuclear power stations	1	–
4	electricity production in the power stations with an individual unit power of more than 1MW and not more than 10 MW	24	5
5	electricity production in power stations with an individual unit power not more than 1 MW or electricity production in wind-driven power stations	339	82
6	heat production for remote-heating system above 1 MW of heating power	41	3
7	transformation of petroleum and petroleum derivatives	1	–
8	electricity transmission	1	–
9	electricity distribution	30	8
10	transmission and supply of natural gas, and transmission-system operation	10	2
11	distribution and supply of natural and other fuel gases and distribution-system operation	36	6
12	electricity transmission-system operation	1	–
13	electricity distribution-system operation	10	–
14	gas storage	14	2
15	storage in liquid-fuel facilities with a capacity above 25 tonnes, and in solid-fuel facilities with a capacity of more than 1000 tones	40	9
16	supply of electricity to non-eligible customers	24	2
17	distribution and supply of the heat for remote heating	41	4
18	trading on the organised electricity market	64	17
19	representing and intermediating on the organised electricity market	39	9
20	organization of the electricity market	1	–
21	production, trading and distribution of liquid fuels	52	14
TOTAL		**777**	**163**

Figure 38: *Total number of the issued licenses, resolved into type of energy-related activities, by 31 December 2002 and the number of licenses issued in 2002*

In accordance with the legislation the agency continually keeps a register of the issued and revoked licenses. Within the register the book of all the issued and revoked licenses is continually updated and made available to the public. The list of the issued and revoked licenses is also available on the web page: www.agen-rs.si

The agency regularly monitors the changes in the legislation related to the issuing of licenses. In 2001 a few acts, which are not completely consistent with the Ordinance regarding the requirements and procedures for issuing and revoking the licence for the operation of energy-related activities, were adopted. The ordinance has to be modified for the sake of consistency.

The agency proposed changes to the requirements and procedures for issuing and revoking the licence for the operation of energy-related activities. The proposal considered the changes in the standard activities classification, the new ordinance regarding the type, scope and requirements for operating the supplementary activities on farms, and smaller modifications related to the level of education for the people responsible for carrying out specific energy-related activities.

4.6 Electricity-market control

4.6.1 Electricity market

The tasks within the field of market control consist of the following: control of market operation, control of the operation mechanisms, the uncovering of irregularities on the electricity and natural-gas markets.

In 2002 the agency followed and analysed the initiatives and questions from the market participants, for example, from the supplier of one of the closed industrial areas, who found some irregularities in the legislation for the service that it operates in its region. The agency responded to the initiative and proposed a solution within the framework of its competences.

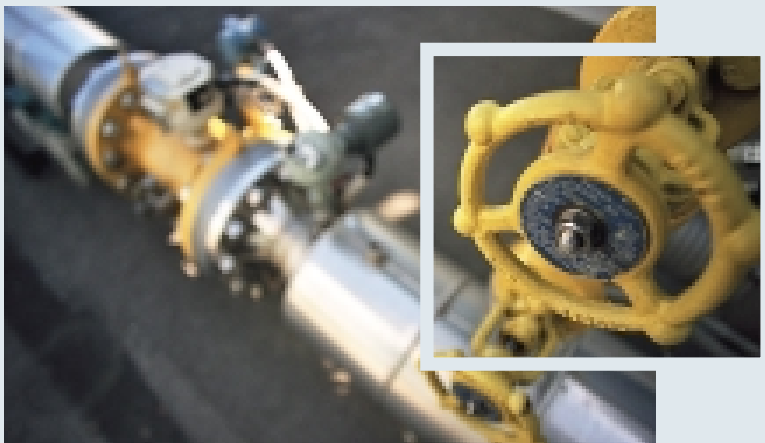
In 2002 the mechanisms of market operation continued to develop and were added to. The agency had an important role in settling the market conditions by its contributions and proposals. The important tasks were, for example, the balancing of the deviations from the operation schedules and the assignment of cross-border transmission capacities.

The agency got the opportunity to inspect contracts relating to access to the networks in order to control electricity consumption that is not agreed in terms of a contract and which is not recorded in the evidence. The analyses provided just a part of the picture of the market activities and did not indicate the irregularities. It was found that complete control would require more data and suitable software for a more detailed analysis and simulations of the market activities. The corresponding programming tool was made (see chapter 7.1.1.8).

During the process of market liberalisation for the cross-border trading the agency collaborated directly with the regulatory institutions of the neighbouring countries. It also ensured that in the future the cross-border transmission capacities would be assigned as two equal shares for each of the two trading countries. The agency also had an active role in the preparation of the rules regarding the type of, and the criteria for, the assignment of cross-border transmission capacities. The agency approved the rules by considering the legal position of the EU as well as the legal position and the interests of the RS. The assignment of cross-border transmission capacities for 2003, which was already agreed in 2002 on the basis of the rules, did not lead to any appeals or disputes.

The agency professionally monitored the overall operation of the electricity domain. The effects of the concentration of the companies into the holding companies were noticed in the production sphere, while there were some uncertainties in the field of electricity transmission and distribution, for example, regarding the pricing of the deviations. In 2002 the agency collaborated with the companies in the process of introducing separate accounting, especially in the cases of the division into individual public services. The agency continually analysed the business of the regulated companies and it did not find any abuses or intentional irregularities.

In 2002 the activities on the organised electricity market (exchange) were according to expectations. The agency received neither appeals nor any initiatives to interfere with the exchange activities. The agency concludes that in Slovenia there are many licensed traders, brokers and representatives, but only rarely do they participate in exchange trading.



The agency received many requests for an explanation or an opinion. There were no appeals against non-correctness on the market or against a discriminatory act of any of the market participants.

4.6.2 Natural-gas market

The agency did not receive any appeals against a non-correctness within the field of natural gas. The agency prepared itself carefully for the liberalisation of the natural-gas market in 2003. The agency has mainly the so-called ex-post competence to control the natural-gas market, which means that its competence is related to a denied access to the network and to a dispute. In order to prepare the market mechanism well, the agency provided some contributions and proposals for the General requirements for the supply and consumption of natural gas from the transmission and the tariff system. The collaboration continues with the proposal for the system operation instructions.

4.6.3 Measures of the energy policy

The agency also followed the measures of the energy policy, their execution and the effects. The agency provided contributions and proposals for the NEP, it collaborated in workshops for the preparation of the professional background for the NEP. The agency paid particular attention to the articles dealing with the status, tasks and competences of the agency.

In the estimations required for the network-use determination and for the regulatory frame, the agency considered the electricity balances, the predictions for the consumption, and the plans for the development of the networks.

4.6.4 Other tasks related to market control

4.6.4.1 Macro-economy effects of the measures within the electricity market

The agency developed the software for the determination of the macro-economic effects of the energy- or energy-source-price changes, which might arise due to the introduction of the market. The agency supported its proposals for the electricity-network-use prices with the results of the performed macro-economic analyses. The macro-economic analyses represented one of the measures for the acceptability of governmental proposals, for example, the proposal for the modifications of the tariff system for electricity, which is the basis for the calculation of the tariff consumption.

4.6.4.2 Closed industrial areas

The avoidance of difficulties related to the customers' supply with electricity in the closed industrial areas (CIAs) is bound mainly to the legal aspects of the 73rd articles of the EL. The legislator should specify the scope of the CIAs more in detail, in spite that so far there have been no disputes in the field of CIAs. The requirements for obtaining the status of the CIA should be specified as well as the resulting rights and duties of particular subjects involved in a CIA. The EL gives the right of a CIA just to those that existed at the time when the law was put in force. The sense of the current form of the 73rd article is questionable because so far the possibility of mediation, provided by this article, was performed in only one case.

4.6.5 Collaboration with other institutions

In 2002 the agency collaborated with the MESPE in solving many questions, among others, about the supplements and proposals to the acts of the Government of the RS. The agency reported about the conditions and its own operation, particularly in the field of the license granting, to energy inspectors. In its broader scope of work and in the field of international projects, it collaborated with the Ministry of the Economy, the Office of Consumer Protection, the Government Office for European Affairs and with other institutions.

The agency intensively collaborated with the Statistical Office of the RS in the preparation of a questionnaire for monitoring the electricity prices, which is used for the calculation of the prices for typical industry customers in accordance with the EU directive (OL No L 185/17; 17. 07. 1990), and for the calculation of the producers-resolved price index for industrial products. The questionnaire used for collecting the selling prices was accepted, and is filled in by the companies that sell electricity.

4.6.6 Collaboration with foreign regulatory bodies

In 2002 the agency collaborated with the regulatory institutions of the neighbouring countries of Austria (E-control) and of Italy (Autorita per l'electricita e il gas), mainly in the field of cross-border trading with electricity. The agency also established a direct relationship with the Dutch regulator (DTE) and the Hungarian Office for energy (MEH). The agency wants to keep regular contacts and to provide a mutual exchange of experiences.

The agency is represented on the forums of the electricity regulators (the so-called Florence forum) and of the natural-gas regulators (the so-called Madrid forum) within the framework of the collaboration with the Council of European Energy Regulators (CEER). It participated in both forums as an observer because of Slovenia's candidate status within the EU. The collaboration on both forums is very important: the participants shape the views of the EU regulators and present the opinions and proposals of interest groups and the European Commission. The agency studies the outcomes and the recommendations of these forums and is able to take them into account in the broader scope of its activities.

The agency is also an observer in the association of the regulators from Central and Eastern Europe (ERRA). It participated at meetings in Vienna and Athens. In Vienna there was a discussion about the forms of help given to the regulators who are the ERRA members. The subject of the meeting in Athens was the project to establish and regulate the regional electricity market in Central, East and South-East Europe.

The agency collaborated with the Croatian regulator, who started to operate in 2002. It also presented its experiences to the professional bodies in Montenegro and, in this way, contributed to their preparations for the establishment of a regulator.

In the framework of international connections, the agency participated at the meeting of representatives from the countries of Central and Eastern Europe (Athens, November 2002). The agreement between these countries on the establishment of a regional electricity market was signed. Slovenia, as a neighbouring country to this region, has the status of an observer in this agreement.

4.7 Organization and common affairs

4.7.1 Professional support to the performance of tasks

4.7.1.1 Professional projects to support the performance of tasks and the operation of the agency

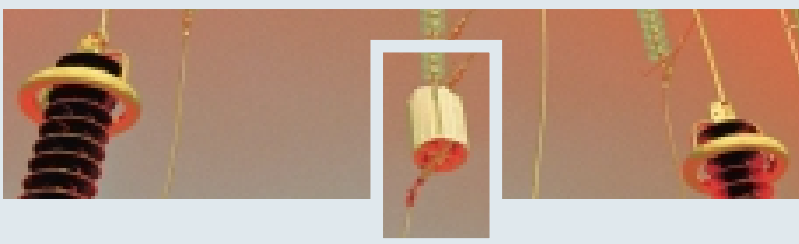
In 2001 the agency called for public tenders for professional studies in the Official Gazette of the RS. The projects started in 2001 and concluded in 2002. The scope of the projects is described in the following.

4.7.1.1.1 The study of the comparability of the service-operation costs and the distribution-network-use prices

The benchmarking of the production and costs parameters of the Slovenian electricity-distribution companies is presented in the study. The comparison includes, besides the five Slovenian companies, also companies from Austria, Great Britain, Finland, Germany, Ireland, Italy, the Netherlands, Norway. The comparative analysis input-output was applied, which consists of two steps. The first step considers only the physical production parameters, while in the second step the analysis with the characteristic environmental parameters is performed. All three benchmarking methods were applied (COLS - Corrected Ordinary Least Squares, SFA - Stochastic Frontier Analysis in DEA - Data Envelopment Analysis). The analyses were performed on a sample consisting of 66 companies in 1999 and 51 companies in 2000. The comparative analysis of the operation and maintenance costs is provided together with an estimate for the possibility of optimization in this field. A part of the study is represented by the comparative analysis of the prices for the network use in the above-mentioned countries, and the comparison of the balance sheets. On the basis of a public tender, a one-year study was performed by the Milan Vidmar Electrical institute from Ljubljana in a collaboration with KEMA Gmbh from Germany and LECG Ltd from Great Britain.

4.7.1.1.2 The study of the comparability of the service-operation costs and the transmission-network-use prices

The project started in the autumn of 2001. By the end of 2001 the first out five phases was complete. The contractual time-limit was 10 May 2002. The aim of the project was to provide a comparison of the costs and the prices for the operation of the electricity-transmission services in Slovenia with at least four reference countries. It was necessary to consider the comparability of the companies and the networks. The analysis of the status, the comparison of the characteristic parameters for different countries and the comparison of the prices for the Netherlands, Germany, Belgium, Denmark, Finland, Ireland, Czech Republic and Slovenia was performed. A suitable comparison with the Slovenian transmission company was found for four foreign companies. The results of the investigation were used for the determination of the network charge for the regulatory period 2003-2005. The determination was performed in agreement with the demand for the adaptation of the efficiency of the Slovenian transmission company in terms of the provision of the regulated services of the electricity transmission and the transmission-network operation. The study was demanding because of the requirement for suitable comparable data, and was therefore delayed. For this reason an



annex to the contract was issued setting a new deadline for the completion of the study. However, the study was again not completed within the new time limit, and, due to this delay, the agency, in accordance with the annex to the contract, did not pay the total contractual price of the study.

4.7.1.1.3 Multi-criteria study of the price-regulation effects on the company level

By completing the study, the authors of the project (EIMV, KEMA Consulting and LECG) reached the aims of the project that was based on four different subjects:

1. survey of the state of the electricity sector in Slovenia,
2. principles of the distinction between the regulated and non-regulated services, with the proposal for the directives regarding services distinction,
3. regulatory control of the network-use prices,
4. allocation of the costs.

The study included all the expected results of the project task. The agency monitored the performance of the project and actively participated. On this basis the agency prepared and issued the regulatory frame for the network-use-price determination in the first regulatory period 2003-2005. Supported by the results of this project the agency introduced the incentive-based regulation by using the price-cap method. The application of this method does not require an annual determination of the regulated prices, which provides better stability and predictability. When determining the price cap, the agency wished to achieve a situation, in which the price should not cover only the costs required for efficient operation and maintenance, but would also allow an appropriate return on the capital and new investments.

4.7.1.1.4 Macro-economic effects of the network-use-price changes

The project provided an extended econometric energy model giving a possibility of assessing the relations between the energy sector and the rest of the economy, either on the side of the consumption or the costs. This assessment provides the information on the macro-economic consequences of particular regulatory decisions made by the agency. The assessment of the macro-economic effects of the network-charge changes requires information about the price flexibility of a given energy source and the network-charge share in the total price of this source.

The study is based on:

1. an estimate for the price-flexibility of the energy-sources consumption in Slovenia,
2. the econometric estimate of the expected growth of the economy and of the prices of the energy sources,
3. the econometric estimate of the influence of the changes in the consumption, production, transmission, and distribution on the required additional investments,
4. the econometric estimate of the influence of the changes of the network-use prices and energy sources on the quality of life in Slovenia.

The agency used the model to determine the macro-economic effects of the network-charge changes. To reduce inflation the Government of the RS requested regulatory institutions to preliminarily adjust their projection for the price changes with the IMAD. On the basis of the model the agency, together with the Office, made a prediction of the influence of the network-use prices, determined for 2003, on the Slovenian economy and inflation.

4.7.1.1.5 Making of a software for the analysis of the EPS operation

The aim of the project was to obtain software for analysing the operation states in the Slovenian electricity-transmission system. The additional aim of the project was to upgrade an already-developed tool for the release of the critical transmission lines. The project was carried out by the Faculty for Electrical Engineering, University of Ljubljana.

The computer program for the calculation of the power flux was developed within the project. The client obtained the information about the Slovenian transmission system from the transmission-system operator. A corresponding database regarding different transmission-system elements was prepared on the basis of this information.

The input of the program for the calculation of the power flux is the state of the production and consumption in the systems and the transits on the Slovenian network. The program provides the analysis of the loads on particular network elements, like the power-lines of transformers. The program is connected to the tool for releasing the critical transmission lines. Therefore, it is possible to find out whether the over-loaded elements can be released by the rearrangement of the production. At the same time it is possible to determine the costs of such a rearrangement.

The developed program will serve the agency for an independent professional review in the case of eventual disputes due to denied access to the transmission network. The establishment of a direct computer connection to the computer of the transmission-system operator is planned too. This will provide the agency with regular analysis of the operational conditions in the transmission network.

4.7.1.1.6 Comparative study of electricity quality at the EU level

The comparative study of electricity quality in the EU, performed by the Faculty for Electrical Engineering, Computer Sciences and Informatics, University of Maribor, is not yet finished. The investigation proposed a set of measuring points for continuous monitoring of the quality of electrical voltage in the distribution and transmission networks. This will provide an insight into the quality of the voltage in these networks. The investigation provides the agency with professional support for the use of the ordinance regarding the requirements for the supply and consumption of electricity in the articles that deal with the quality of network-operator services.

4.7.1.1.7 Comparative study of the prices and scope of the ancillary services

The study, which includes an analysis of the ancillary-services prices, was performed by the Faculty for Electrical Engineering, University of Ljubljana. First, it was necessary to shape the procedures for providing the ancillary services and next to deal with the service prices. The results and conclusions of the investigation are:

- The formation of the ancillary-service market in the EU region just started.
- Proposal for the formation of the ancillary-services market for the services like the active-power reserves for the frequency control.
- Proposal for the solution regarding the assurance of other ancillary services.
- Assessment for the costs of the ancillary services on the basis of simulations.
- Proposal for a consideration of those ancillary services, for which a payer can be found, for example, the balancing of the deviations from the planned power, or the balancing of the deviations due to overloaded transmission lines.

The ancillary-services market is still under development. This development in Slovenia is limited by the size of the potential market in a geographically-restricted region, and it is influenced by a gradual development of the market in the UCTE.

The study provided useful results to the agency for the preparation of the electricity-network-use prices, because the results represent a reliable estimate of the costs with the ancillary services. The study also provided useful results regarding the ways in which the transmission-system operator can provide the ancillary services.

4.7.1.1.8 Control of the electricity-market operation

The project considered the options for the electricity-market control by taking into account the experiences of the EU countries and the limitations set by Slovenian legislation. The emphasis was on the control of the organised electricity market. A computer-aided tool for the analysis or simulation of the electricity-market activities was developed. The program provides for the control or identification of possible incorrectness on the market.

The project was carried out by the Faculty for Electrical Engineering, University of Ljubljana. The first phase of the project covered the professional background of the required program. The software for the simulation (or the analysis) of the market was developed next. The delivery of the program was successful and its capabilities are well assessed. The program was completely installed and runs on a regular basis.

4.7.1.1.9 Overall information system of the Energy Agency of the RS

The project contains an overall approach to the plan of the information system for supporting the operation of the agency and the performance of its tasks. The information system contains the business-information-system modules, which support the organization and operation of the agency. The contents of the modules for supporting the particular tasks-performance services is designed too. The software packages for the business information system needed for the agency operation were installed. The project has been completed.

4.7.1.2 Other projects

4.7.1.2.1 Analysis of the electricity quality in the market environment

The Milan Vidmar Electrical Institute prepared the analysis in the form of a questionnaire. The idea was to prepare a set of questions to determine the knowledge about the quality of the electrical voltage in the case of eligible customers, tariff customers and electricity producers. The electricity is a stock, the quality of which was determined with the criteria from the standard SIST EN 50160: the Characteristics of the voltage levels in the public distribution networks, which was issued in 2001 (the second edition). Before that, the quality of electricity used to be determined only on the basis of the supply's reliability. The questions about the quality of the electrical voltage were standard and were related to: the network frequency, the supplied voltage and the deviation from this value, rapid changes of the voltage level, drops in the voltage, break downs of the supply, transition phenomena, non-equilibriums of the voltage and the harmonic voltage. The answers to

these questions revealed the existence of the customers that are sensitive to the voltage drops and the harmonic voltages. Only the sensitive consumers know the voltage quality since they are equipped with the measuring instruments, so that they can monitor the quality and evaluate the costs of the suspended production. The inquiry can be repeated in future years.

4.7.1.3 Projects from the Phare program

The agency is a user of the pre-access help from the Phare program within the framework of two projects, which started in 2002, and the technical-support project, which started in 2003.

The project Phare 2000 Liberalisation and regulation of the energy market started on July 2002 and lasted for one year. The project consists of seven tasks that are conceptually slightly interrelated, and are to help the agency in the majority of the areas of its operation. In 2002, in accordance with the plan, a little less than half of the project activities were completed. The priority tasks and the operation requirements of the agency were considered during the execution of the project. Four groups of Spanish experts, and the project leader, visited the agency in the frame of the project. Further steps in the execution of the project were determined on the basis of the already-completed tasks. The agency obtained a lot of useful information about developed energy markets from collaboration in the project groups. Of particular importance were the proposals from the Spanish experts, which are already being realized.

The project Phare 2002 Liberalisation of the natural-gas market – access to the natural-gas transmission network started in November 2002 during the visit of the project coordinator and the legal expert for natural gas. The project lasted for six months, and six visits of foreign experts were proposed for this period. The aim of the project was to prepare the proposals for the formation of a tariff system for the natural-gas-networks use, proposals for the accomplishment of system operation instructions and draft criteria of the eligibility of a denied access to the network. The project activities were executed in accordance with the plans.

The project Phare 2002 Regulative framework for the operation of the liberalised Slovenian energy market, technical support, will deal with the strategy contents. It will start in the second half of 2003, when both of the previously described projects are finished, because it represents their continuation.

4.7.1.4 Professional training of the employees

The field of regulation is demanding, because the operations have to be consistent with the findings of the international profession and the EU. In addition, the agency is a public institution with the statutory power to issue general legal acts and to make decisions regarding administrative procedures. It also has to deal with public relations. Hence, all the employees have to be continually educated and qualified in order to be able to successfully perform all the tasks.

The agency trained and offered additional specialization to its employees by means of special seminars, workshops, and courses in Slovenia and abroad. They broadened their specialised knowledge on regulation, the natural-gas and electricity markets, the economy and finances, management, electrical engineering and the law. They learned about public relations and improved their knowledge of foreign languages.

4.7.2 Common affairs

4.7.2.1 Personnel

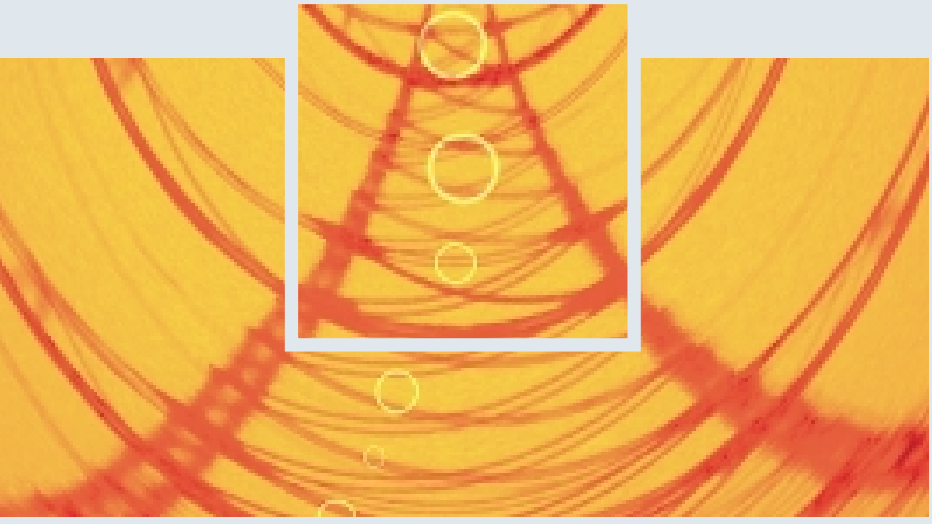
In 2002 an average of 18 people were employed, with 21 employed at the end 2002. The number of employees is in accordance with the plan.

Education	Ph.D.	M.Ph.	B.Sc.	Coll.	Voc. Sch.	High Sc.	Total
Technical Sciences	1	1	5	1		1	9
Economy			5		1		6
Law			4				4
Other			1		1		2
	1	1	15	1	2	1	21

4.7.2.2 Information system

The activities of the agency are computer aided. The local computer network consists of the application and web servers, workstations, and system printers. The operation of the local information system is performed through the network server, by providing the back-up of the data, and through the web server. There is a firewall with anti-virus protection installed too. The network is realised on the basis of a Fast-Ethernet with the corresponding software.

The licenses-issuing-support software (licenses database, licenses register, input documents, charter-printing program, printing of the book of licences) was upgraded. The information on the license holders is accessible from the web pages. The contents of the Slovenian and English versions of the web pages were regularly updated.



The project Integral information system of the Energy Agency of the RS was finished. The application software on the network server was upgraded. The security policy of the agency in the field of information technologies was determined. This provides the security of the information system and data in accordance with the regulations and standards.

4.7.2.3 Internal library

The library of the agency is a full member of COBISS, with the possibility of an inter-library loan from any of 266 libraries in Slovenia

or foreign locations. The book loan is automatic, and 25 serial publications circulate among the employees. The employees receive the contents of the Official Gazette of the RS and the Poročevalec journal via e-mail.

In 2002 the library obtained 60 new books, the number of magazines increased too. New bookcases were installed. These provide for a transparent arrangement of the library material, resolved into monographs, studies, serial publications, and the archive of the agency's products.

4.7.3 Public relations

The agency regularly informed the public about the introduction of the energy market and about the agency's operation in accordance with the statute. A communication plan of the tasks from this field was prepared.

4.7.3.1 General public

The agency actively collaborated with the press in informing the public. Several press conferences, discussions with journalists, press notices or answers to the questions of journalists were provided. Several activities were performed in this manner:

- preparation and printing of introductory material (an agency ID card) in Slovenian and English;
- two press conferences were organized and three public notices were distributed;
- 20 written answers to the questions of journalists were given;
- collaboration with editors or journalists in the presentations of regulations and the agency operations in the form of 2 appendices to magazines, which were devoted to the liberalisation of the energy market (Gospodarski vestnik, Profit).

4.7.3.2 Professional public

The following activities were performed within the field of the professional public:

- The agency collaborators gave talks at some conferences. Some papers about the liberalisation of the electricity market and the tasks of the regulators were published in professional magazines. The agency contributed to all issues of the electricity-economy magazine Naš stik.
- Besides the introduction of the agency activities, the web pages contain a list of the energy-services license holders, the passed secondary regulations of the agency and their interpretations, other publications on the agency activities of interest to the public, the secondary regulations from the field of energy, and the Contact Us page. Several questions regarding the relations among the electricity-market participants were sent to the Q & A page.
- Many explanations, opinions and answers to professional questions were prepared.
- The liberalisation of the Slovenian market and the role of the agency were presented to several professional unions and institutions, at meetings and conferences on the energy field in Slovenia and abroad.
- The agency organised two well-received international seminars. The seminar Directions in forming the prices for the electricity-network use was in June, while the seminar Liberalisation of the natural-gas market took place in November 2002.

4.7.4 Reports and plans

4.7.4.1 Report on the work and the financial report

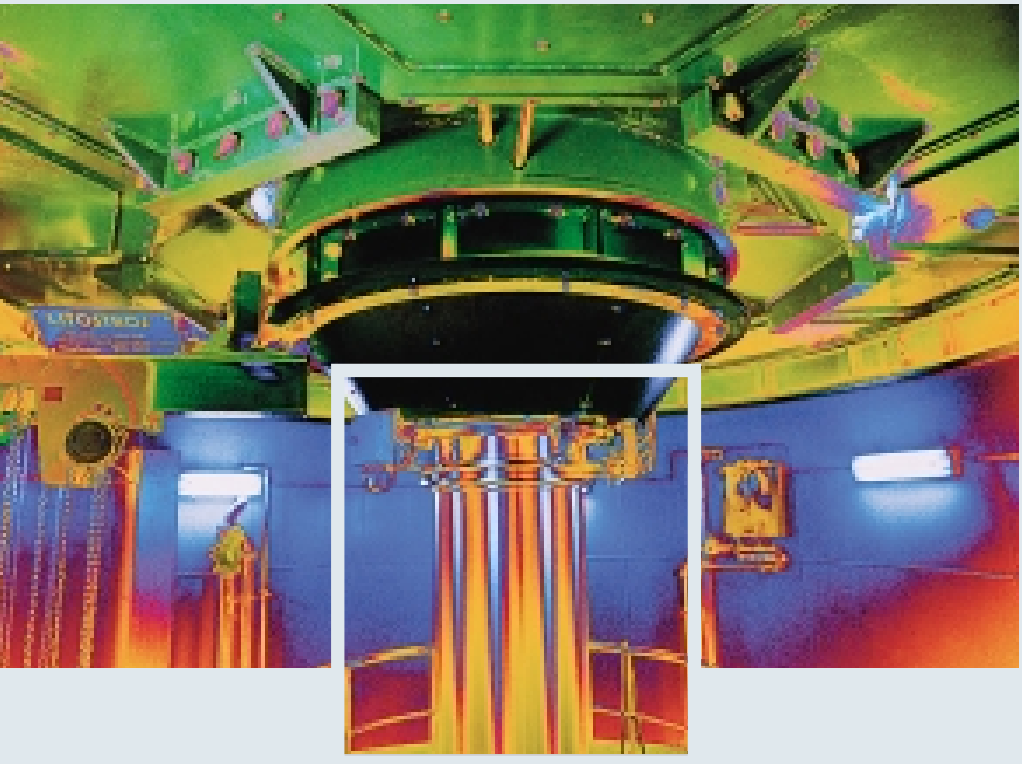
In accordance with the legislation, the Report on the work of the Energy Agency of the RS, together with the Financial report for 2001 were published on 28 February 2002 and sent on time to the Government of the RS for its approval. The Government gave approval to the report at its 91st regular session.

4.7.4.2 Report on the work of the Energy Agency of the Republic of Slovenia and the situation in the energy sector in 2001

The report contained all the activities related to the introduction of the electricity and natural-gas markets. It was finished in August and was sent to the Government of the RS. The government accepted the report at its 91st regular session on 16 September 2002. The report was then published as a printed brochure in Slovenian and English.

4.7.4.3 Working plan and financial plan

The Working plan and the financial plan of the Energy agency of the RS for 2003 and 2004 were prepared. On 12 September the document was, in the prescribed time limit, sent to the government for acceptance. The Government of the RS gave approval to it at its 101st regular session on 12 December 2002.



4.8 Summary

In 2002 the agency began forming some of the conditions for the further liberalisation of the electricity market, and for the beginning of the liberalisation of the natural-gas market. The agency was involved in all spheres of the energy activities.

The final price of the supplied electricity includes the price for the electricity and the price for the use of the network. The agency is competent to set the price for the use of the electricity network. This price is related to those services for which competition cannot be introduced completely (natural monopoly). The price setting in 2002 should stimulate the economic efficiency of the regulated companies. The methodology was developed during discussions with regulated companies and the professional public. The regulatory framework for the next 3 years was prepared on this basis.

The natural-gas market was liberalised on 1 January 2003. The agency prepared itself for the operation of its tasks and competences in this field. In particular it analysed the state of the market, the international development of the natural-gas market and prepared itself for the settlement of disputes.

By means of an administrative procedure the agency settles disputes between market participants and the public services related to network access and the calculated price for the use of the network. In the electricity sector there were few disputes, however, the agency for the first time implemented the procedure of mediation as an alternative way of settling disputes.

In 2002 the agency issued 163 new licenses for the operation of the energy-related activities. By the end of the year the total number of the granted licenses was 777.

In 2002 the market-operation mechanisms were still under development and were being improved. The agency contributed to the settlement of market conditions by its contributions and proposals. It was also involved in the procedures of issuing some of the secondary regulations, it put forward many expert opinions and answers to questions asked by energy-market participants. It collaborated with many Slovenian and foreign institutions.

Projects for providing professional support to the agency's operation, and the projects within the framework of the Phare program were carried out.

In 2002 the agency realised its plans and contributed to the successful liberalising of the energy market in Slovenia. The rapid and dynamic liberalisation of the market also required many activities in certain professional spheres that were not predicted in the original plan.

APPENDIX

5. ENERGY LEGISLATION

The Energy Law was passed in 1999 and has been valid since 15 October 1999. The following 35 secondary regulations were passed on the basis of the law:

1. Ordinance regarding the general requirements for the supply and consumption of electricity, Official Gazette of the RS, no. 117/2002 (valid from 29. 12. 2002, in use by 1. 3. 2003)
2. Rules regarding the mode and requirements for the assignment and the criteria for access to the cross-border transmission capacity, Official Gazette of the RS, no. 103/2002
3. The tariff system for the supply of natural gas to the tariff customers on the transmission network, Official Gazette of the RS, no. 96/2002
4. Ordinance regarding the determination of the highest tariff item for the sale of electricity to the tariff customers, Official Gazette of the RS, no. 67/2002
5. System operation instructions for the electricity-transmission network, Official Gazette of the RS, no. 46/2002
6. Rules regarding the technical requirements for building, operating and maintaining the pipelines with the highest operating pressures of up to 16 bar, Official Gazette of the RS, no. 26/20002, 54/2002
7. Ordinance regarding the rules for the setting of prices and for buying electricity from qualified electricity producers, Official Gazette of the RS, no. 25/2002
8. System operation instructions for the electricity-distribution network, Official Gazette of the RS, no. 15/2002
9. Ministerial order regarding the requirement for energy efficiency of electrical household refrigerators, freezers and fridge-freezer combinations, Official Gazette of the RS, no. 107/2001, 16/2002
10. Ministerial order regarding the required efficiency of new heating boilers running on liquid or gas fuel, Official Gazette of the RS, no. 107/2001, 20/2002
11. Ministerial order regarding the energy markings for bulbs and fluorescent lighting for household use, Official Gazette of the RS, no. 104/2001
12. Ministerial order regarding the energy markings for household dishwashing machines, Official Gazette of the RS, no. 104/2001
13. Ministerial order regarding the energy markings for household washing-drying machines, Official Gazette of the RS, no. 104/2001
14. Ministerial order regarding the energy markings for household electrical drying machines, Official Gazette of the RS, no. 104/2001, 4/2002
15. Ministerial order regarding the energy markings for household washing machines, Official Gazette of the RS, no. 104/2001
16. Ministerial order regarding the energy markings for electrical refrigerators, freezers and fridge-freezer combinations, Official Gazette of the RS, no. 104/2001
17. Rules regarding the energy labels on particular types of household appliances, Official Gazette of the RS, no. 104/2001
18. Ordinance regarding the highest tariff items for selling electricity to tariff customers, Official Gazette of the RS, no. 85/2001 (valid by 31. 7. 2002)
19. Rules regarding the assignment of the funds to stimulate the use of renewable energy sources, efficient use of energy and co-generation, Official Gazette of the RS, no. 74/2001
20. Rules regarding the technical requirements for building, operating and maintaining the pipelines with an operating pressure of more than 16 bar, Official Gazette of the RS, no. 60/2001, 54/2002
21. Rules regarding the operation of the electricity market, Official Gazette, no. 30/2001
22. Rules regarding the setting of prices for the use of the electricity networks and criteria for the eligibility of the costs, Official Gazette of the RS, no. 30/2001, 103/2001, 48/2002, 109/2002
23. Ordinance regarding the requirements for the status of a qualified electricity producer, Official Gazette of the RS, no. 29/2001, 99/2001
24. Ordinance regarding the requirements and the procedure for issuing and revoking the licenses for operating the energy-related activities, Official Gazette of the RS, no. 21/2001, 31/2001
25. Ordinance regarding the mode of providing the public service for the natural-gas transmission and the public service for the transmission-system operation, Official Gazette of the RS, no. 8/2001, 11/2001

26. Ministerial order regarding the natural-gas devices, Official Gazette of the RS, no. 105/2000, 28/2002
27. Statute of the Energy Agency, Official Gazette of the RS, no. 102/2000
28. Rules regarding the criteria for the assignment of funds for interventions in renewable sources and the efficient use of energy, Official Gazette of the RS, no. 83/2002 (valid by 21. 9. 2001)
29. Conclusion regarding the establishment of the Energy Agency, Official Gazette of the RS, no. 5/2000
30. Conclusion regarding the determination of the electricity-distribution-network operators in the RS, Official Gazette of the RS, no. 54/2000
31. Conclusion regarding the determination of the electricity-transmission-system operator in the RS, Official Gazette of the RS, no. 54/2000
32. Ordinance regarding the mode of providing the public service for the organisation of the electricity market, Official Gazette of the RS, no. 54/2000
33. Ordinance regarding the mode of providing the public services in the field of the electricity distribution, Official Gazette of the RS, no. 54/2000, 99/2001
34. Ordinance regarding the mode of providing the public service for the electricity transmission and the public service for the transmission-system operation, Official Gazette of the RS, no. 54/2000, 124/2000, 29/2000, 99/2001
35. Ordinance regarding the discontinuity of the validity of the ordinances regarding the transformation of the public companies for the production of electricity, Official Gazette of the RS, no. 49/2000 (valid since 20. 6. 2000)

All the required regulations have not yet been published. The EL solved this problem by extending the validity of many of the regulations, which were published on the basis of the old law (The law regarding to the energy economy, Official Gazette of the SRS, no. 33/1981 and 29/1986) until the enforcement of the new regulations:

1. Tariff system for the sale of electricity from the Slovenian electricity system, Official Gazette of the RS, no. 84/1998
2. General requirements for the supply and consumption of electricity, Official Gazette of the SRS, no. 6/1988, 23/1988, 15/1989 and Official Gazette of the RS, no. 26/1990
3. Requirements for issuing the electricity consents for the connection to the electricity system, Official Gazette of the SRS, no. 29/1986, 15/1986
4. Measures and criteria for the reimbursements for the connection to the transmission-pipeline network of the SRS and for an increased consumption of natural gas from this network, Official Gazette of the SRS, no. 1/1987
5. Measures and criteria for the preferential supply with fuel oil in the SRS, Official Gazette of the SRS, no. 45/1987
6. Rules on the rational use of energy during heating and airing of the facilities and preparing hot water, Official Gazette of the SRS, no. 31/1984, 35/84
7. Criteria regarding joining the funds of the electricity users at 110 kV for increasing the connection power, Official Gazette of the SRS, no. 15/1987, 45/1987, 3/1988
8. Measures and criteria regarding the reimbursements for new connections and for increasing the existing connection power for the users on low-voltage level of 0.4 kV and voltage levels 1-35 kV, Official Gazette of the SRS, no. 2/19082, 1/1984, 27/1985, 1/1986, 50/1986, 45/1987, 3/1988
9. Ordinance regarding the mode of providing the public service for the natural-gas supply from the transmission network, Official Gazette of the RS, no. 77/1996 (validity of the article 12-20)
10. Ordinance regarding the limitation of the loads and electricity consumption in the electricity system, Official Gazette of the RS, no. 42/1995, 64/1995
11. Rules regarding the professional education, working experiences, the mandatory training, and the mode of testing the knowledge of the workers performing jobs and tasks related to the operation of energy devices, Official Gazette of the SRS, no. 30/1983, 31/1984, 1/1987.

Among the listed acts, the Ordinance regarding the mode of providing the public service for the natural-gas supply from the transmission network was almost completely substituted (only the articles 12-20 remained valid) by the Ordinance regarding the mode of providing the public service for the natural-gas transmission and the public service for the transmission-system operation (Official Gazette of the RS, no. 08/2001, 11/2001).

The Government of the RS also passed the new Ordinance regarding the general requirements for the supply and consumption of electricity (Official Gazette of the RS, no. 117/2002), so that the validity of the acts, itemized as 2, 3, 7 and 8 was discontinued. This ordinance considers the market conditions within the field of the electricity supply, the new subjects on the electricity market, and the changed relations between them.

List of figures

Abbreviations

CAPM	Long-Term-Assets-Estimation Model
CHPL	Combined Heat-and-Power Plant Ljubljana
CIA	Closed Industrial Area
DNO	Distribution-Network Operation
DPSM	Drava Power Stations Maribor
DTS	Distribution-Transformer Station
ED	Electricity Distribution
ELES	The Transmission Company Elektro-Slovenija, d. o. o.
EPS	Electric-Power System
EZ	Energy Law
HPS	Hydropower Station
HSE	Holding Slovenske elektrarne, d. o. o.
HV	High Voltage
IMAD	Institute of Macroeconomic Analysis and Development
ME	Ministry of the Economy
MESE	Ministry of the Environment, Spatial Planning and Energy
MF	Ministry of Finance
NC	Network Charge
NCPL	Network-Charge Price-List
NEP	National Energy Program
NPS	Nuclear Power Station
NPSK	Nuclear Power Station Krško
PS	Public Service
PUN	Price for the Use of Electricity Networks
RS	Republic of Slovenia
SLOeX	Slovenian Electricity Index
SPSL	Sava Power Stations Ljubljana
SPSNG	Soča Power Stations Nova Gorica
TCS	Tariff-Customers Supply
TE	Transmission of Electricity
TPS	Thermal Power Station
TPSB	Thermal Power Station Brestanica
TPSŠ	Thermal Power Station Šoštanj
TPST	Thermal Power Station Trbovlje
TRM	Transmission Reliability Margin
TSO	Transmission-System Operation
WACC	Weighted-Average Capital Costs

Report on the Work of the Energy Agency of the Republic of Slovenia and the Situation in the Energy Sector in 2002, October 2003

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