

# The Slovenian Electricity Market and the Prices of Electricity

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*Abstract:* - The article is based on the analysis of the circumstances, occurred after the electricity market opening in the Republic of Slovenia, as a consequence of implementation of the EU legislation in the energy field. The market operation, the role of the national regulatory authority and the market conditions are described, all of which influences the supply and prices of electricity in 2010. Additionally, a model of price formation for industrial and household consumers is presented and an overview of the production and end use of electrical power in Slovenia.

*Key words:* - Energy, Electricity Market, Preferential Producers, Regulatory Authority, the Structure of the Electricity Price

## 1 Introduction

The energy sector has a crucial role in the economic and social behaviour of the EU Member States and in the quality of living of the inhabitants and consumers. It is also a key element of the economy and energy stability. The important task of the electricity sector is to ensure enough production capacity of electrical power and primary distribution networks. Also, the production and demand for electricity need to be in balance.

Physically, electrical power is a form of energy, resulting from physical and chemical transformation of primary energy. It is universal and has to be transferred to consumers via distribution and transmission systems.

With the creation of the market, electricity became a market commodity with few special characteristics, due to which the electricity market differs from other markets.

Before the liberalisation of electrical power markets, the coordination of electrical power production was generally carried out by vertically integrated monopolistic corporations. Therefore, decisions regarding operation and investment were being taken by a monopolistic corporation, thereby considering the technical obstacles and obstacles to the transfer of electrical power.

Before changes to the electrical power market, supply is inseparably linked to distribution, as customers are not able to choose their distributors, which makes supply in terms of an independent function a non-issue. Following changes, however, transfer and distribution are limited only to the

transport of electrical power, while the production side has to take care of sales itself.

Concrete milestones in opening up the electricity market in Slovenia are not the only indicators of how the market operates; the European Commission carries out surveys and reports on the progress in market opening. The Commission has noted shortcomings in market operation and differences between the EU Member States.

The EU has recognised the need to act on the EU level and to establish a common energy policy and strategic goals and envisage measures, necessary for the future development of the energy sector in the EU. Due to the measure taken at the EU level, Slovenia as a Member State benefits from the market opening as we note our market is less hindered than in other Member States.

## 2 The Development of Slovenian Electricity Market

The dynamic of opening up the electricity market in Slovenia began in 2000, when the Government assigned the public companies to be distribution system operators with their task to be the distribution of electricity to tariff consumers. Hence, the task of distribution and transmission system operators was separated.

The first step in opening up the national electricity market was taken in 2001, when Slovenia adopted the Energy Act [1] to transpose the Directive 96/92 [2] into national legislation. In formal legal terms, the liberalisation of the electrical power

market in Slovenia began on 15<sup>th</sup> April 2001, while consumers will undoubtedly note 15<sup>th</sup> October 2001, when the beginning of the market's operations was announced.

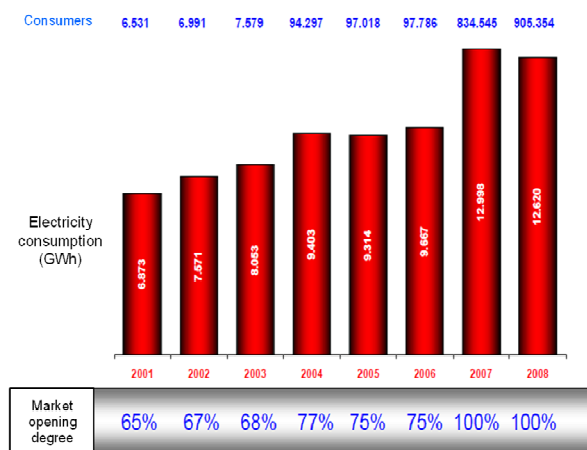
The Energy Act established the rules for electricity market operation. Distribution system operators began to issue licenses for access to networks to eligible consumers and producers. The data on network capacity became public.

The national borders opened on January 1 2003 for eligible costumers. The electricity market, for electricity produced outside The Republic of Slovenia, was opened. Distribution companies, tariff consumers and other eligible consumers were able to import electricity.

In July 2004 the electricity market opened for 92.000 eligible consumers, except for households. The market openness increased to 77%, conversely to 77% in 2006.

In 2007, when the Directive 2003/54/EC [3] concerning common rules for the internal market in electricity was implemented through the Energy Act, the electricity market was completely open, meaning that all the consumers, including households, became eligible consumers and were able to choose their electricity supplier. The suppliers can sell electricity, produced in Slovenia or bought in other EU markets.

The dynamics of gradual opening-up of electricity market from 2001 to 2008 is presented in Figure 1.



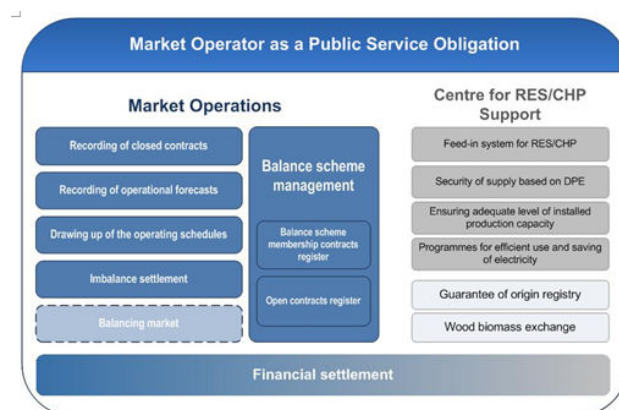
**Fig. 1** The dynamics of opening up the electricity market in Slovenia [4]

## 2.1 Market Organiser – BORZEN [5]

Borzen is an important actor in Slovenian energy sector and represents an efficient mechanism for the implementation of goals of Slovenian and European energy policy. Borzen therefore helps to create a

domestic and international energy field. It promotes the development of the Slovenian electricity market and market mechanisms in accordance with EU guidelines and contributes significantly to the proper functioning of the Slovenian power system, alignment of Slovenian and European legislation and integration of the Slovenian electricity market to the integrated European electricity market.

Borzen, which was previously owned by Elektro Slovenija, passed into direct ownership of the Government of Slovenia in December 2007. As Power Market Operator, Borzen provides and facilitates coordinated operation of the Slovenian electricity system. It executes the activities of balance scheme management, recording of closed contracts, elaboration of indicative operating schedule, imbalance settlement and financial settlement of transactions, all connected with the aforementioned activities. Figure 2 shows its basic activities:



**Fig. 2:** Market Operator as a Public Service Obligation [5]

Additionally, Borzen stimulates environmental policies and promotes public awareness within the Centre for RES/CHP support. The Centre for RES/CHP support is the support scheme operator for the generation of energy from renewable energy sources and highly efficient cogeneration of heat and power. With the establishment of the wood biomass portal, a place has been developed, where supply and demand meet in one place, which provides information and better transparency in the biomass field.

Activities connected with energy exchange were under the responsibility of Borzen until November 2008, when responsibility was passed to the newly established company BSP Regional Energy Exchange, which was founded by Borzen and Eurex, the international derivatives exchange, in May 2008. Borzen's strategic goal to establish a regional energy

exchange in South East Europe has thereby been accomplished.

Borzen therefore helps to create a domestic and international energy field. It promotes the development of the Slovenian electricity market and market mechanisms in accordance with EU guidelines and contributes significantly to the proper functioning of the Slovenian power system, alignment of Slovenian and European legislation and integration of the Slovenian electricity market to the integrated European electricity market. Borzen's strengths are driven by implementation of strategic goals that are closely connected with environmental policies, since the company wishes to contribute to a better tomorrow, today. Quality service provisions must fully face the challenges of market rules and competitive environments, taking into account the regulations in this field.

Borzen has clearly defined strategic guidelines, the most important of which are the following:

1. systematical, transparent, efficient and competitive Slovenian electricity market and its integration into European internal market, for which Borzen will work for with other important actors;
2. encouragement and assurance of market mechanisms of green energy use; hence, Borzen contributes to a greater use of renewable energy sources and the protection of environment in Slovenia, consequently also to achieving the Slovenian obligation towards Kyoto protocol and EU Energy package;
3. a successful operation and development of Regional Energy Exchange in South-East Europe.

Borzen's vision is to operate as a Slovene institution for the implementation of services regarding the organisation of the electricity market and to provide market mechanisms on power markets. Borzen, as a highly professional and neutral company, is the promoter of the development of electricity markets, their efficiency and the transfer of knowledge and experience to Slovenia.

Borzen's mission is to provide effective and transparent market functioning for all market participants through the development of the organised electricity market, services within the energy industry and its involvement in the international energy field, and for the operation of the organised market as a whole.

Organising the market is a public utility service, which carries out activities for energy market participants, in line with the energy legislation.

The organised electricity market is hierarchically regulated into a balance scheme.

Every legal entity or natural person wanting to actively operate on the electricity market has to become a member of the balance scheme.

The members of the balance scheme can act on the market as commercial traders, buying and selling the electricity, either for quantities fixed in advance (closed contracts), or as suppliers of electricity, who deal with supplying the electricity to consumers, or with buying electricity from producers (open contracts). The members of the balance scheme are also transmission system operator, distribution system operator and Borzen.

The market organiser has a register of contracts for the membership in the balance scheme. The register is regularly updated and published on the website.

There are two ways for the market participants to be included in the balance scheme:

- by concluding a balance contract with the market organiser;
- by concluding an offset contract with a natural person or legal entity, already included in the balance scheme.

## 2.2 Market Regulator

In Slovenia, the Energy Agency is the market regulator. It was established in 2001. Since its establishment, it helped create appropriate conditions for opening-up the electricity market in Slovenia, in line with EU legislation. The role of the Agency as a market regulator is to ensure the transparency of market operation and to regulate the activities so that the quality of services provided in the electricity sector is high and the prices for the provision of services are low. The Agency also determines methodology for calculating the network charge.

With the adoption of amendments to the Energy Act [6] the competences of the Agency increased. Especially in the field of renewable energy sources and cogeneration of heat and electricity; the Agency also issues guarantees of the origin of electrical energy and commercial green certificates for the production of electricity from renewable resources.

## 2.3 Patterns of Trade

The model of the electricity market consists of a bilateral and organised market. By bilateral trade, the suppliers and consumers can award the bilateral contract for supply and sale of electricity directly among each other. That kind of trade is usually carried out at over the counter (OTC) market.

A basic characteristic of an organised market is power exchange, which organises the market due to

a better transparency with the use of electronic media. There are two basic power exchange patterns:

- bilateral contracting
  - long-term (annual, multiannual,...)
  - short-term (daily, weekly, monthly...)
- trade on the organised market (trade with standardised products).

Standardised trade products are the following::

- Base load power
  - constant supply, affordable price.
- trapezoidal energy
  - more expensive than base load power
  - the buyer only pays the premium for a partial consumption.
- night energy
  - at night the consumption is low,;
  - the price is low, sometimes even negative.,
- conic energy
  - when the consumption is big, the prices are high.

The price is established on the market as a combination of trade commodities. Loading diagram with standardised suppliers of electricity trading is shown in Figure 3.

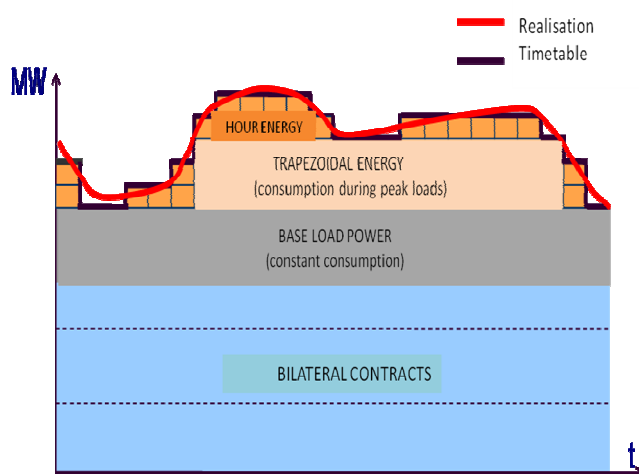


Fig. 3 Daily load diagram

### 3. The Prices of Electricity

The production of electricity in different environments and different electricity systems and due to different sources, from which it is produced, is subject to different costs.

The price of electricity is composed of the price of energy and the price for the use of networks. The price of energy is established on the market; the price for the use of networks is fixed. The price for the use of networks is composed of network charge

for transmission and distribution networks (the cost of operation and maintenance) and the additional costs for the network charge (preferential dispatching, the operation of the regulator, identification of contracts etc.). A typical structure of price formation for the end-user is shown in Figure 4.

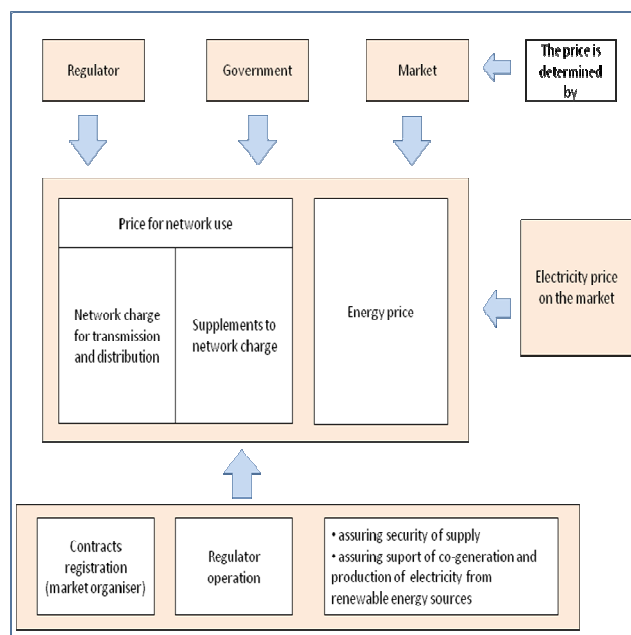


Fig. 4 The structure of price of electricity

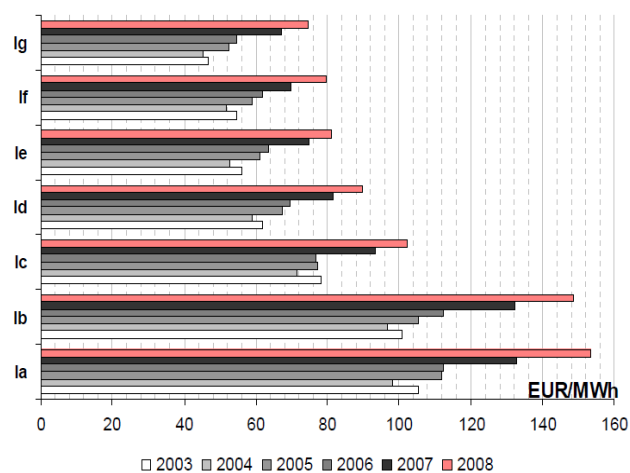
#### 3.1 The prices for industrial consumers

The price of electricity for industrial consumers depends on envisaged consumption and dynamics of the consumer and the conditions on the wholesale market.

Price movement of electricity for typical industrial consumers in Slovenia in 2004 to 2008 shows a continued growth by all consumers, as a consequence of increased prices on the wholesale market in Slovenia and in the EU. Price movement for standard consumers groups is shown in Figure 5, where:

- Ia – annual consumption 30 MWh, power 30 kW
- Ib – annual consumption 50 MWh, power 50 kW
- Ic – annual consumption 160 MWh, power 100 kW
- Id – annual consumption 1250 MWh, power 500 kW
- Ie – annual consumption 2000 MWh, power 500 kW
- If – annual consumption 10000 MWh, power 2500 kW
- Ig – annual consumption 24000 MWh, power 4000 kW
- Ih – annual consumption 50000 MWh, power 10000 kW

Ii – annual consumption 70000 MWh, power 10000 kW



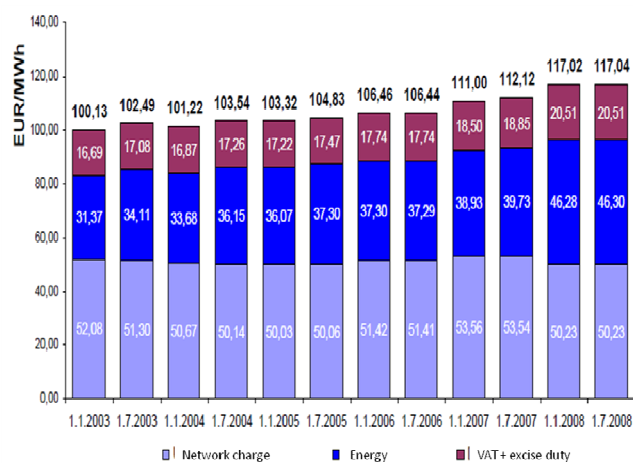
**Fig. 5** Price movement for typical industrial consumers in Slovenia in 2004 - 2008 [6]

### 3.2 The prices for households

Since July 1 2007 households are also eligible consumers and can choose their supplier of electricity.

Total price of electricity for household consumers has been increasing gradually from 2003 to 2008 for 3.1% annually (average increase). The network charge was relatively stable at that time.

Until July 1 2007, when the price for electricity was being determined by the government, the prices increased by 6% annually. In 2008, in comparison to 2007, the price increased by 18%. The price movement in 2004 to 2008 is shown in Figure 6.



**Fig. 6** Price movement for typical household consumers in Slovenia in 2004 - 2008 [6]

### 3.2.1 The structure of price for electricity [9]

The final price of electricity which has to be paid by the household consumers monthly is composed of (in 2009):

- the price for supplying electricity;
- network charge;
- the contribution for ensuring security of electricity supply by the use of domestic primary energy sources;
- the contribution for ensuring support to producing electricity from cogeneration with high utilisation and from renewable energy sources;
- supplier's expense;
- excise duty for electricity; and
- Value Added Tax.

#### 3.2.1.1 The price for electricity supply

Since the full opening of the market from 1 July 2007, the price of electricity supply has become the market category.

The price of supply, according to the purpose or consumer's size, depends on connecting power (3 kW, 7 kW, 10 kW, 21 kW and more); accordingly, it is assigned into specific levels of feed-in the electricity (I., II., III. and IV. level) and the type of electricity meter (single or double tariff), planned or actual quantity of electricity consumed (kWh), and price list of suppliers.

#### 3.2.1.2 The price for the use of networks

The price for the use of networks is an expense which the consumer has to pay for accessing the electricity network. The price is determined at a national level and composed of the following elements:

- network charge, determined by the national regulatory authority;
- supplements to network charge, determined by the government.

The network charge, for which the tariff items are defined, consists of the following:

- the part of the network charge for the transmission network;
- the part of the network charge for the distribution network;
- the part of the network charge for ancillary services;
- the part of the network charge for specialised ancillary services;
- the part of the network charge for the use of cross-border transmission capacities of interconnection lines;
- the average cost of making a connection.

### 3.2.1.3 The contribution for ensuring security of electricity supply by the use of domestic primary energy sources and the contribution for ensuring support for the production of electricity by cogeneration with high utilisation and the production from renewable energy sources

In line with the amendments of Energy Act, the electricity consumers are charged with two new contributions, determined by the Slovenian government.

For household consumers they are 0.2158 EUR/kW.

### 3.2.1.4 Supplier's expense

The expense of the supplier is the monthly expense for keeping of account, which includes the expenses for processing and sending the invoices.

### 3.2.1.5 Excise duty on electricity

The excise duty on electricity is determined by the Government of the Republic of Slovenia.

### 3.2.1.6 Value Added Tax

Value Added Tax (VAT) is determined by the Government of Republic of Slovenia and is 20% of the net price of electricity.

## 3.2.2 Calculating the elements of the price of electricity

The end price of electricity (in EUR) is composed of:

- variable amount for the supply of electricity on the basis of used quantity of energy in the time VT, MT or ET (the consumption of energy in kWh multiplied by the price of supply of electricity in EUR/kWh);
- variable amount for the use of electricity power network:
  - monthly contribution for the power, depending on the rated capacity of safety catch (power in kW multiplied by the price for the use of network in EUR/kW);
  - the used quantity of energy in times VT, MT or ET (the consumption of energy in kWh multiplied by the price for the use of network in EUR/kWh),
- variable monthly amount of contribution for ensuring the security of energy supply by the use of domestic primary energy sources (power in kW multiplied by price in EUR/kW);
- variable monthly amount of contribution for ensuring support for the production of electricity from cogeneration with high

utilisation and from renewable energy sources (power in kW multiplied by price in EUR/kW);

- fixed monthly compensation for covering supplier's expenses for operation (EUR/measuring point/month);
- variable excise duty on electricity (total consumption of energy in kWh multiplied by 0,001 EUR);
- variable amount of VAT (net amount of sum of all elements multiplied by 0.2).

## 3.2.3 Choosing the supplier of electricity

Household consumers can freely choose their supplier among the following:

- Elektro Celje d.d.
- Elektro Gorenjska d.d.
- Elektro Ljubljana d.d.
- Elektro Maribor d.d.
- Elektro Primorska d.d.
- GEN-I, d.o.o.

## 3.2.4 The structure of the price

The complete structure of the final price of electricity:

- energy price (produced electricity) within the competence of electricity producers (GEN Energy and HSE), which represents 38,7 % of the final price;
- network charge, which is determined by the system operator of the distribution network (SODO Ltd.) and represents 38,2 % of the final price;
- supplements to the network charge, which are determined by the Government of the Republic of Slovenia and represent 4 % of the final price;
  - DVE contribution;
  - OVE contribution;
- excise duty, which is determined by the Government of the Republic of Slovenia and represents 0,8 % of the final price;
  - value added tax - VAT, which is determined by the Government of the Republic of Slovenia and represents 16,7 % of the final price;
  - gross price (the final price including all taxes and duties).

The technical characteristics and the definition of standard groups' consumers are:

- **Da** – annual consumption 600 kWh, power 3 kW; level I – single tariff measurement; typical consumers: lights, radio, TV, refrigerator, small kitchen devices;
- **Db** – annual consumption 1.200 kWh; power 4 kW; level I – single tariff measurement; typical consumers same as Da, including washing machine and dishwasher;

- **Dc** – annual consumption 3.500 kWh, from which 1.300 kWh on MT, power 7 kW; level II – double tariff measurement; typical consumers same as Da, including washing machine, dishwasher and boiler;
- **Dd** – annual consumption 7.500 kWh, from which 2.500 kWh on MT; power 7 kW; level II – double tariff measurement; typical consumers same as Dc;
- **De** – annual consumption 20.000 kWh, from which 15.000 kWh on MT; power 9 kW; level III – double tariff measurement; typical consumers same as Dd.

The technical characteristics of an average household consumer in Slovenia, according to the level of consumption and the type of measurement are:

- **Level I** – consumers with power restrictions 3 kW. The energy is charged single tariff only and is used for lighting and every day household work; the energy is not used for heating or cooking;
- **Level II** – consumers with power restrictions 7 kW. The energy can be charged single or double tariff; energy is used for every day household work; the power of safety catches also enables sanitary water heating, washing in the dishwasher, the use of dryers and air-conditioning;

- **Level III** – consumers with power restrictions 10 kW; the energy can be charged single or double tariff; besides the common use described in Level II it enables additional improvement of the living environment;
- **Level IV** – consumers with power restrictions 21 kW, 23 kW, 26 kW, 33 kW, 41 kW; the energy can be charged single or double tariff; besides the common use this level of consumption is intended for consumers with high standard consumption of energy;
- **AVER SLO – ET** – a consumer with an average consumption of energy in Slovenia; single tariff measurement, power restriction 8 kW; level II – ET,
- **AVER SLO – 2T** – a consumer with an average consumption of energy in Slovenia; double tariff measurement, power restriction 8 kW; level II – 2T.

Table 1 shows the monthly price for the use of network and new contributions for household consumers in 2009 and 2008.

The structure of retail price of monthly electricity invoice for specific consumers' groups (household consumers) in 2009 is presented in Table 2.

**Table 1:** Monthly net prices for household consumers for the use of network and contributions, Slovenia, 2009[9]

Consumers' group	2009	2009		
	CUO	DVE contribution	OVE contribution	CUO + contributions
	EUR	EUR	EUR	EUR
Da	4,09	0,12	0,53	4,73
Db	6,55	0,16	0,71	7,42
Dc	15,25	0,27	1,24	16,76
Dd	26,38	0,27	1,24	27,90
De	56,82	0,35	1,59	58,76
Level I - ET	6,22	0,12	0,53	6,87
Level II - ET	14,67	0,27	1,24	16,18
Level II - 2T	14,94	0,27	1,24	16,45
Level III - ET	21,88	0,39	1,77	24,04
Level III - 2T	22,73	0,39	1,77	24,88
Level IV - ET	82,15	0,90	4,07	87,12
Level IV - 2T	72,32	0,90	4,07	77,28
AVER SLO - ET	15,19	0,31	1,41	16,91
AVER SLO - 2T	17,29	0,31	1,41	19,02

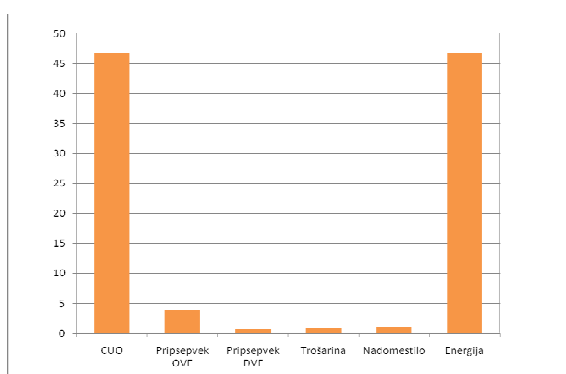
**Table 2:** The structure of the electricity invoice in February 2009 (EUR) – Elektro Maribor [9]

Consumption Group	Energy	CUO + contributions	Excise duty	Compensation	Net sum	VAT	Gross sum
	EUR	EUR	EUR	EUR	EUR	EUR	EUR
Da	2,85	4,73	0,05	0,00	7,63	1,53	9,16
Db	5,69	7,42	0,10	0,00	13,21	2,64	15,85
Dc	16,41	16,76	0,30	0,00	33,46	6,69	40,16
Dd	35,96	27,90	0,64	0,00	64,49	12,90	77,39
De	72,72	58,76	1,70	0,00	133,18	26,64	159,82
Level I - ET	6,51	6,87	0,12	0,00	13,50	2,70	16,20
Level II. - ET	17,39	16,18	0,28	0,00	33,84	6,77	40,61
Level II. - 2T	15,09	16,45	0,30	0,00	31,84	6,37	38,21
Level III. - ET	26,64	24,04	0,42	0,00	51,10	10,22	61,32
Level III. - 2T	23,83	24,88	0,47	0,00	49,18	9,84	59,02
Level IV. - ET	248,78	87,12	1,95	0,00	337,85	67,57	405,42
Level IV. - 2T	196,09	77,28	1,71	0,00	275,09	55,02	330,11
AVER SLO - ET	16,83	16,91	0,27	0,00	34,01	6,80	40,81
AVER SLO - 2T	17,60	19,02	0,35	0,00	36,96	7,39	44,35

The total amount invoiced by the supplier Elektro Maribor since February 1 2009 is:

- Typical standard consumer Dc.....40,16 EUR,
- Average consumer at double tariff measurement (AVER SLO - 2T).....44,35 EUR.

The complete structure of elements of electricity invoice for an average Slovenian household consumer at double tariff electricity meter (AVER SLO - 2T) on the national level, end of March 2009, is shown in Figure 7.



**Fig.7:** The structure of the elements of the electricity invoice in April 2009 (%) – Slovenia [8]

Figure 7 shows how both elements determining the price that are designated on the market and are in the responsibility of suppliers (the price for supplying electricity and the costs of compensation of the supplier), represent 47,72 % of net electricity invoice.

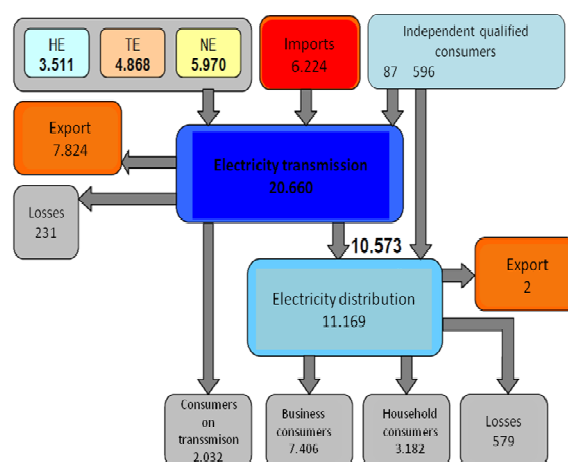
The elements that are in the competence of the market regulator and the Slovenian government (CUO, DVE and OVE contributions) represent 51,34% of net electricity invoice.

Less than 1% of net price is the excise duty on the electricity.

#### 4. The production of electricity

The production of electricity is a market activity and is subject to commercial law legislation. The production of electricity needs to be adjusted to instant electricity consumption, as the energy cannot be stored. In physical sense, the production of electricity is adjusted to instant consumption, but the schedule of operation of production objects is determined for each hour, for a day ahead.

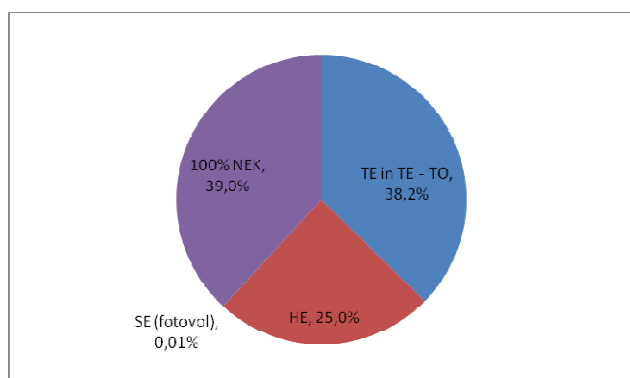
All the companies for the production of electricity in Slovenia have been free to trade on the Slovenian market since 2003, independently from system operators. The production companies normally act on the wholesale market, together with national and foreign traders and suppliers of electricity. The balance of production and consumption of electricity in Slovenia in 2008 in GWh is shown in Figure 8.



**Fig. 8** Balance of production and consumption of electricity in 2008 (HE- hydroelectric power plants, TE – thermal power plant, NE – nuclear power plant) [7].

To support the production of electricity which is not competitive on the market, the state offers state aids, especially to producers of electricity from renewable sources and cogeneration. The Slovenian support system is so-called »feed-in« system, where the competent authority buys the electricity for fixed prices from producers, eligible for support, and the producers sell electricity for market prices on the market.

The structure of gross domestic electricity production from electric power plants according to their primary energy source is shown in Figure 9. The final consumption is shown in Table 3.



**Fig. 9:** The structure of gross production at 100% share of nuclear power plant Krško in 2009 (%) [10]

**Table 3:** The final consumption of electricity, the losses and electric power plants' own consumption [10]

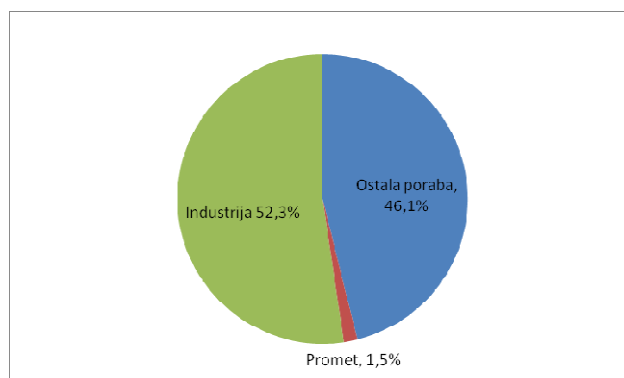
Electricity (GWh)	2009
1. The production of electric power plants on generators	15698,7
Hydroelectric power plant	3926,3
Thermal power plant	6103,2
Nuclear power plant Krško (100%)	5667,0
SE (photovoltaic)	2,2
2. Export 50% Nuclear power plant Krško	2700,0
3. Available on generator (1-2)	12998,7
4. Export others	
5. Import	1702,7
6. Gross consumption (3-4+5)	14701,4
7. The consumption of energy sector	1190,6
Electric power plants' own consumption	1043,8
Energy sector (excluding electricity industry)	146,8
8. The loss by transmission and distribution	952,7
9. Total consumption (6-7-8)	12558,0
Industry	6572,8
Transport	193,0
Other consumption	5792,3

Source: Ministry of the Economy; Data: SURS (2007, partially 2008), holders of energy activities (2009)

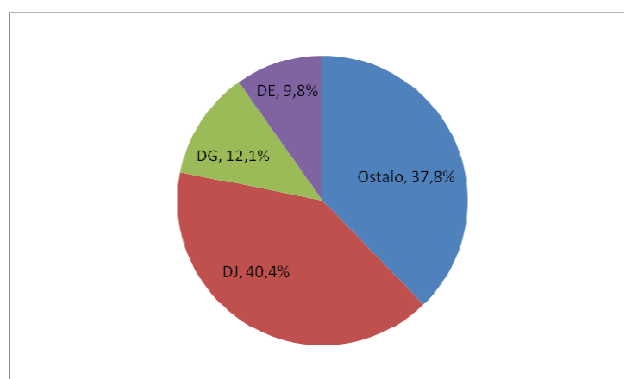
The total consumption of energy was 12558.0 GWh in 2009. The loss due to transmission and distribution of energy is 952,7 GWh, electric power

plants' own consumption 1043,8-GWh; 146,8 GWh used in the energy sector. The structure of total consumption of energy in 2009 is shown in Figure 10. It can be seen that the industry sector prevails with 52.3% share, followed by other consumption (46.1%) and transport (1.5%).

Figure 11 shows the structure of electricity consumption in industry. Industry DJ prevails (the production of metals and metal goods with 40.4% share), followed by: DG industry (chemicals, chemical products, artificial fibres) with 12.1% share, DE industry (the production of fibres, paper and cardboard, publishing and printing industry) with 9.8% share, and all the other industries with 37.8% share.



**Fig. 10:** The structure of the end-use of electricity in 2009 according to different sectors (%) [10]



**Fig. 11:** The structure of the end-use of electricity in industry in 2009 (%) [10]

## 5 Conclusion

Slovenia is not a country that is energy rich. More than half of its energy is imported (approximately 57%) and is therefore energy dependent. In our opinion, more attention should be paid to the use of alternative sources of energy and to development of new production technologies.

For improving the situation we suggest the following measures to be taken and goals to be aimed at:

- ensuring sustainable, competitive and secure energy;
- complementing the National Energy Programme;
- saving energy;
- constructing a long-term plan of nuclear power plant operation;
- expanding transmission capabilities;
- constructing bigger hydroelectric power plants and more photovoltaic power plants;
- subsidising the use of renewable energy sources;
- reorganising and privatising electricity companies.

Until 1<sup>st</sup> July 2007 the prices of electricity were determined by the Slovenian government. In 2008, the prices for household consumers increased by 4%, which is not proportionate with the price increase of energy products.

Price irregularities lead to an irrational use of natural resources, because the subsidised electricity for households is becoming the cheapest source of heating. As a consequence, the consumption of electricity is increasing in Slovenia, and the import dependency rises. Furthermore, the functioning of the electricity systems is less and less reliable.

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