

**Regulatory Commission for electricity of Republic of Srpska**

# Annual report for 2006

Trebinje, July 2007

## Table of Contents

### PREAMBULE

#### A. Annual report of the Regulatory Commission for electricity in 2006

##### 1. INTRODUCTION

##### 2. LEGAL FRAMEWORK OF REGULATION OF THE ELECTRIC POWER SECTOR AND ELECTRIC POWER ACTIVITIES

##### 3. KEY ACTIVITIES

###### 3.1. Sessions, meetings and public hearings

###### 3.2. Issuance of licenses and monitoring

###### 3.2.1. Procedures related to issuance of licenses

###### 3.2.2. Monitoring of compliance with the license requirements

###### 3.3. Regulation of the price of electricity and electric power services

###### 3.3.1. The first tariff proceeding

###### 3.3.2. Prices of electricity in Republic of Srpska

###### 3.4. Protection of customers

###### 3.4.1. Regulatory framework of protection of customers

###### 3.4.1.1. Settlement of disputes and complaints

###### 3.4.2. Protection of the socially vulnerable customers

###### 3.5. General conditions for delivery and supply of electricity

###### 3.6. Market opening

###### 3.7. Renewable energy sources

###### 3.7.1. Renewable energy sources and energy policy

###### 3.7.2. Rule book on getting a status of eligible generator

###### 3.8. Cooperation

###### 3.8.1. ERRRA - Regional Association of the energy regulators

###### 3.8.2. ECSEE - Energy Community of the South-East Europe

###### 3.8.3. Cooperation with other regulatory commissions

###### 3.8.4. Participation in the work of seminars, conferences and workshops

#### 4. STAFF, ORGANIZATION AND TRANSPARENCY OF WORK

##### 4.1. Staff and organization of work of the Regulatory Commission

##### 4.2. Transparency of work of Regulatory Commission

#### 5. FINANCING OF THE REGULATORY COMMISSION

##### 5.1. Financing

##### 5.2. Audit report

#### 6. INFORMATION SYSTEM OF REERS

## B. ELECTRIC POWER SECTOR AND ELECTRICITY MARKET IN REPUBLIC OF SRPSKA

### 1 GENERATION OF ELECTRICITY

#### 1.1. Protection of environment

### 2. TRANSMISSION OF ELECTRICITY

### 3. SUPPLY AND DELIVERY OF ELECTRICITY

#### 3.1. Distribution of electricity

#### 3.2. Supply of electricity

#### 3.3. Quality of service

### 4. DYNAMICS OF THE MARKET OPENING

### 5. SAFETY OF SUPPLY

#### 5.1 Introduction

#### 5.2 Safety of supply - generation and consumption of electricity

##### 5.2.1. Safety of supply and energy efficiency

#### 5.3. Construction of the generation facilities for electricity

#### 5.4. Safety of the electric power system and electricity market

### 6. BENCHMARKING DATA ON ELECTRICITY PRICES IN REPUBLIC OF SRPSKA

## Preamble

This report represents a complete review of work of the Regulatory Commission for electricity of Republic of Srpska in 2006, which was conducted in accordance with the planned operational activities and financial plan - budget and information about typical indicators of functioning of the electric power sector and electricity market in Republic of Srpska in 2006.

The year of 2006 was actually the second year of effective work for Regulatory Commission and it was important for implementation of a range of activities related to establishment of the regulatory framework which is necessary for improvement of the reform process of the electric power sector in Republic of Srpska towards its functioning in full market conditions.

Issuance of the initial licenses for electric power activities, end of 2005, created conditions to monitor and direct behavior of the electric power structures (licensees), through the monitoring process of the application of the prescribed conditions, regarding their transparency in work, necessary unbundling of accounts, relationship towards other market participants, particularly users, as well as the relationship towards environment and effective use of the energy resources.

In 2006, Regulatory Commission for electricity (hereinafter Regulator or REERS), for the first time, as an independent body, made tariffs for supply of tariff customers with electricity and tariffs for use of the distribution network in the open proceeding based on the already prescribed methodology. The tariffs which were already made and published for the public for the use of the electric power network are a very important precondition for the electricity market opening in a sense of providing equal conditions for all participants at the market following the principle of the regulated third party access. Criteria, deadlines and procedures for the electricity market opening, i.e. realization of the right of the eligible customer to choose (switch) the supplier that is going to provide him with electricity, were prescribed by the Regulatory Commission in the Rule on getting a status of eligible customer, which was also made in 2006.

Within its competence which is related to protection of customers, Regulator directed its activities in 2006 mostly towards prescribing and monitoring of compliance with a range of provisions in General Conditions for supply and delivery of electricity that prevent or limit monopolistic and non-transparent behavior of distribution companies and settlement of disputes at the request of buyers of electricity.

A very important international activity within a scope of energy for Bosnia and Herzegovina in 2006 is ratification of the Treaty on establishing energy community of the South-East Europe, according to which Republic of Srpska within BiH, committed itself to implement Acquis Communautaire related to the market of electricity and gas, protection of environment, renewable energy sources and competition in domestic legislation and regulation. Regulatory Commission for electricity, in cooperation with State Regulatory Commission for electricity and Regulatory Commission for electricity of Federation BiH, actively participated in

defining Road Maps and Action Plans for fulfillment of obligations taken by the signing the mentioned Treaty.

Regulatory Commission, in its work, was strongly following the principles which imply: acting within the competence and obligations prescribed by the law, respect of the already published rules, procedures and methodologies, as well as transparency of work which includes the obliged consulting of the public while making decisions.

We are assured that Regulatory Commission, with its work carried out in 2006, made a great contribution to the step towards the establishment of the regulatory framework for behavior of the electric power structures and protection of customers, for introduction of the market and development of new capacities based on foreign investments, thanks to, among other things, positive signs on creation of conditions for improvement of the electric power sector.

We are assured also that presenting information about its work in a way which was made in this report and Preliminary annual report with estimate of the budget realization in 2006, presented to the National Assembly of Republic of Srpska in the fifth session which was held on 14 December 2006 while considering and adopting the Budget for 2007, Regulatory Commission fully provides reporting of its work pursuant to Article 31 of the Electricity Law of Republic of Srpska.

## A. ANNUAL REPORT OF THE REGULATORY COMMISSION FOR ELECTRICITY IN 2006

### 1 Introduction

Establishment of the Regulatory Commission for electricity, as a specialized, independent and non-profitable organization in order to regulate monopolistic behavior and provision of the transparent and non-discriminatory position of all participants at the electricity market was stipulated by the Electricity Law of Republic of Srpska ("Official Gazette of Republic of Srpska" number 66/02, 29/03, 86/03 and 111/04 hereinafter the "Law"). The Law also prescribed competences, authorizations and obligations of the Regulatory Commission including the obligation to inform National Assembly of Republic of Srpska at least once a year about its work.

The report was made in such a way to emphasize the most important indicators of the Regulatory Commission and, at the same time, to provide for necessary transparency.

Chapter 2 contains basic information about the legal framework and competences for the Regulatory Commission acting, while key activities are taken to the special chapter 3 which was divided in several sub-chapters, while the typical parts of the report related to the staff and organizational structures and revised financial reports are given in special chapters 4 i.e. 5.

The first part of the chapter on key activities contains indicators on quantities about the number of the regular sessions, internal meetings and public hearings held as well as the number and structure of the documents made in order to present transparently, from that point of view, the volume of work of the Regulatory Commission.

Three first key activities related to issuance of licenses and monitoring of the application of the licenses, regulation of the electricity price and electric power services, protection of customers arise from the basic competences of the Regulatory Commission and they are most important per the volume of engagement of resources.

Making General Conditions on delivery and supply of electricity does not have the nature of permanent activity of the Regulatory Commission but the importance of this document which regulates the relationships between customers, distributors, suppliers and generators of electricity connected to the distribution network and a lot of efforts for its making are the reasons to treat it separately as a special key activity in 2006.

Activities related to the renewable sources and market opening to a certain extent are covered by basic activities related to tariffs and licenses (3.2 and

3.3), but are particularities which make them particular were prevailing for putting them in separate sub-chapters.

The sub-chapter on cooperation contains, first of all, information about participation of members and staff of the Regulatory Commission in harmonization of regulations in Bosnia and Herzegovina through cooperation with two other regulatory commissions in BiH as well as participation in the work of institutions which are important for the electric power sector in the region and in the work of seminars, workshops, etc.

## 2. Legal framework of the regulation of the electric power sector and electric power activities

The Law and following secondary legislation made pursuant to the Law represented the legal framework for regulation of the electric power sector in Republic of Srpska, i.e. legal framework for operation of the Regulatory Commission for electricity in 2006:

- Decision on appointment of president and members of the Regulatory Commission for electricity of Republic of Srpska ("Official Gazette of Republic of Srpska", number 90/03, 93/03 and 128/06)
- Decision on appointment of a member of the Regulatory Commission for electricity of Republic of Srpska ("Official Gazette of Republic of Srpska", number 128/06);
- Statute of the Regulatory Commission for electricity of Republic of Srpska ("Official Gazette of Republic of Srpska", number 41/04);
- Code of Ethics for members and staff of the Regulatory Commission for electricity of Republic of Srpska ("Official Gazette of Republic of Srpska", number 49/04);
- Rule book on the work, internal organization and systematization of positions of the Regulatory Commission for electricity of Republic of Srpska ("Official Gazette", number 128/06);
- Statute of the Regulatory Commission for electricity of Republic of Srpska ("Official Gazette of Republic of Srpska", number 41/04);
- Code of Ethics for members and staff of the Regulatory Commission for electricity of Republic of Srpska ("Official Gazette of Republic of Srpska", number 49/04);
- Rule book on the work, internal organization and systematization of positions of the Regulatory Commission for electricity of Republic of Srpska ("Official Gazette of Republic of Srpska" number 49/04);
- Procedural rules ("Official Gazette of the Republic of Srpska", number 96/04);
- Decision number 01-1009/04 of the National Assembly of RS on the Budget adoption of the Regulatory Commission for electricity of Republic of Srpska for 2005 ("Official Gazette of Republic of Srpska" number 6/05);
- Decision on the regulatory fee for the companies for generation, distribution and trade of electricity arising from the approved budget for 2005 ("Official Gazette of Republic of Srpska" number 23/05);

- Rule book for issuance of licenses and permits ("Official Gazette of Republic of Srpska" number 52/05);
- Decision on the amount of the one-off regulatory fee ("Official Gazette of Republic of Srpska, number 60/05);
- Rule book on tariff methodology and tariff proceeding ("Official Gazette of Republic of Srpska" number 61/05);
- Decision on the content and form template in the tariff proceeding ("Official Gazette of Republic of Srpska" number 65/05);
- Decision on initiating the first tariff proceeding ("Official Gazette of Republic of Srpska", number 65/05);
- Rule book on public hearing and settlement of disputes and complaints ("Official Gazette of Republic of Srpska", number 71/05);
- General conditions for delivery and supply of electricity ("Official Gazette of Republic of Srpska", number 66/06);
- Rule book on getting a status of eligible customer ("Official Gazette of Republic of Srpska", number 88/06)

Competences of Regulator which were, as already stated, originally prescribed by the Law and discussed in the above mentioned documents, were as follows:

- monitoring and regulation of relationships between generation, distribution and customers of electricity, including the electricity traders,
- prescribing methodology and criteria for determination of the electricity price for supply of non-eligible customers,
- determination of tariff rates for distribution system users and tariff rates for non-eligible customers,
- determination of the structure and total price of electricity at the plant outlet and price for distribution of electricity,
- issuance or revocation of the license for generation, distribution and trade of electricity,
- determination of general conditions for delivery of electricity;
- making tariff system for the sale of electricity;

In realization of its competences and functions, and pursuant to those competences, Regulator is also in charge of:

- improvement of efficiency, reliability and cost-effectiveness in generation, distribution and exchange of electricity,
- improvement of competitiveness,
- encouragement of efficiency, cost-effectiveness and safety in the use of electricity,
- regulation of the service quality and tariffs and favorable prices, taking into account interests of customers and needs of the company for delivery of electricity,
- provision of fairness in electricity supply,
- provision of transparent and non-discriminatory behavior at the electricity market,



- provision that the electric power activity on the territory of Republic of Srpska does not have an adverse effect on health, safety and protection of environment;
- supervision of efficiency of mechanisms and procedures which provide for system mid and long-term balance between consumption and delivery of electricity;
- creation of conditions for development of the electric power system (generation and distribution);
- making measures for prevention of misuse of monopolistic behavior of the licensee that was issued the license by Regulator

### 3 Key activities

#### 3.1. Sessions, meetings and public hearings

In 2006, Regulator held 17 regular and one extra session and 30 internal meetings. In these regular sessions it was considered and determined the documents within the regulatory competence pursuant to the competences prescribed by the Law, while in the internal meetings it was discussed issues and documents adopted of the organizational-administrative nature. There are statistical data in the tables regarding the structure and number of the documents adopted in the regular sessions and internal meetings.

Regular session	number	Internal meetings	number
Type of documents		Type of documents	
Minutes	17		
Decisions adopted	19	Minutes	30
Rulings adopted	34	Decisions adopted	44
Conclusions adopted	11	Rulings adopted	8
Press releases	13	Conclusions adopted	43
Drafts determined	11	Rules adopted	3
Rules adopted	2		
Opinions adopted	2		

Table 1 - Structure and number of the documents made

In the same period, REERS held 23 public hearings related to making general normative documents, determination of the electricity price in the first tariff proceeding, issuance of licenses for the electric power activities and settlement of disputes. The number of public hearings, per type, is as follows, in the table:

Type of public hearing	Rules and regulations	Issuance of licenses	Tariffs and market	Settlement of disputes	Total number of the hearings held
General public hearing	5	6	1	-	12
Technical hearing	1	3	1	1	6
Formal hearing	-	-	-	5	5

Table 1 - Structure and number of public hearings

### 3.2. Issuance of licenses and monitoring process

#### 3.2.1. Procedures related to license issuance

One of the competences of REERS is issuance or revocation of licenses for electric power activities and license for construction of the electric power structures. Pursuant to the Rule for issuance of licenses and consents, REERS keeps a register of the licenses and permits issued, and Collective overview of the issued licenses are regularly updated at its website as well as the list of the received applications for issuance of licenses.

End of 2005, REERS issued 18 initial licenses with the validity period of 2 years to the following structures:

Type of license	Licensee
Initial license for generation of electricity	<ol style="list-style-type: none"> <li>1. "Hidroelektrane na Drini", a.d. Visegrad</li> <li>2. "Hidroelektrane na Vrbasu", a.d. Mrkonjic Grad,</li> <li>3. "Hidroelektrane na Trebisnjici", a.d. Trebinje</li> <li>4. "Rudnik i termoelektrana Ugljevik", a.d. Ugljevik</li> <li>5. "Rudnik i termoelektrana Gacko", a.d. Gacko</li> <li>6. "Elektrodistribucija", a.d. Pale</li> <li>7. "Elektrobijeljina", a.d. Bijeljina</li> </ol>
Initial license for distribution of electricity	<ol style="list-style-type: none"> <li>8. "Elektrodoboj", a.d. Doboj</li> <li>9. "Elektrokrajina" a.d. Banja Luka</li> <li>10. "Elektrodistribucija" a.d. Pale</li> <li>11. "Elektrobijeljina" a.d. Bijeljina</li> <li>12. "Elektrohercegovina", a.d. Trebinje</li> </ol>
Initial license for the electricity supply of tariff customers	<ol style="list-style-type: none"> <li>13. "Elektrodoboj" a.d. Doboj</li> <li>14. "Elektrokrajina" a.d. Banja Luka</li> <li>15. "Elektrodistribucija" a.d. Pale</li> </ol>

	16. "Elektrobijeljina" a.d. Bijeljina 17. "Elektrohercegovina" a.d. Trebinje
Initial license for trade and supply of electricity on the territory of BiH	18. "Elektroprivreda Republike Srpske" a.d. Trebinje

Table 3 - Initial licenses issued end of 2005

In 2006, Regulator received three applications for issuance of licenses for electric power activities.

In its 33rd regular session which was held on 16 June 2006, Regulator made decision on issuance of license for trade and supply on the territory of Bosnia and Herzegovina to the Service and trade company "Energy Financing Team", Ltd Trebinje. The application for issuance of this license was submitted on 27 December 2005 and it was afterwards four times amended and then REERS on 11 April 2006 published Notification that the application was complete. In its 30th regular session which was held on 27 April, it was determined the draft license, while general hearing on the draft license was held on 10 May 2006 in Trebinje.

Application for issuance of the license for generation of electricity in the small hydro electric power plant Divic, Kotor Varos, was submitted by SHPP Eling Teslic on 23 January 2006, and it was amended several times. Notification about the application was published on 9 August 2006. In its 36th regular session which was held on 25 August 2006, it was determined draft license, while general hearing on the draft license was held on 8 September 2006 in Kotor Varos. Decision on issuance of the license for generation of electricity to the SHPP Eling was made by REERS in its 38th regular session which was held on 28 September 2006.

Application for issuance of the license for trade and supply of electricity on the territory of Bosnia and Herzegovina was submitted by the Alumina plant "Birac" a.d. Zvornik. Notification about the application was published on 5 December 2006. In its 41st regular session which was held on 12 December 2006, it was determined draft license, while the general hearing on the draft license was held on 18 December 2006 in Zvornik. Decision on issuance the license for trade and supply of electricity was made by REERS in its 42nd regular session which was held on 22 December 2006.

### 3.2.2. Monitoring of the license requirements' compliance

Pursuant to the provisions of Law and Rule for issuance of licenses and consents, REERS, based on the adopted plan and timetable of monitoring, initiated the activities of regular and extra monitoring of the regulated companies in the process of monitoring and license requirements' compliance in 2006.

There were two extra monitoring activities which resulted in orders to undertake the measures for removal of the practice which is against the license requirements. It was about the method of calculation of the electricity consumed and calculation of the interest for delay in settlement of liabilities and action following the objection of end users.

Regulated companies acted following the order of Regulator for implementation of measures and informed Regulator accordingly, which was confirmed during regular monitoring activity.

In 2006, there were regular monitoring activities carried out in 11 electric power companies, licensees of 18 initial licenses. While conducting the monitoring activities, members of the monitoring team reviewed the documents, checked the equipment and plant, as well as took statements from the responsible persons of the licensee, examined harmonization of the actual status with the license requirements. Reports from the regular monitoring activity contain the exact situation found regarding the compliance of the license requirements and irregularities found while using the license. These reports were submitted to licensees to comment. Upon the conducted analysis of the report and comments submitted, REERS ordered some measures for removal of the failures found regarding compliance of the license requirements, in the decisions issued.

### 3.3. Regulation of the price of electricity and electric power services

Regulator carries out duties related to regulation of the electricity price in Republic of Srpska. Economic regulation in the electric power sector aims at improvement of the market principles pursuant to the Law which is based on the generally accepted international standards in the electricity field and tends to promote gradual liberalization of the national electricity market. Accordingly, the Law follows the principles of non-discrimination and equality of persons and property.

Gradual approach in introduction of liberalization is firstly related to generation which is in its phase regulated activity with regulated prices. Establishment of the market institutions and construction of market mechanisms shall enable introduction of competition in generation of electricity and realization of the rights of customers to freely choose its supplier.

Regulator was assigned the following duties by the Law:

- supervision and regulation of relationships between generation, distribution and customers of electricity, including traders of electricity (Article 23 of the Law),
- prescription of methodology and criteria for determination of the electricity price for supply of non-eligible customers (Article 23 of the Law),
- determination of tariff rates for distribution systems' users and tariff rates for non-eligible customers (Article 23 of the Law),
- determination of the price structure and total price of electricity at the plant outlet and particularly for distribution of electricity (Article 115 of the Law),
- pursuant to Article 30 of the Law, Regulator makes tariff system for the sale of electricity

### 3.3.1 The first tariff proceeding

Decision on initiating the first tariff proceeding ("Official Gazette of Republic of Srpska" number 65/05) made by REERS, enabled regulated companies to file applications for approval of tariffs and prices for 2006.

Application for approval of the price at the outlet of 9 plants was submitted by seven regulated companies (JP "Hidroelektrane and Trebisnjici", a.d. Trebinje, "Hidroelektrane na Drini", a.d. Visegrad, "Hidroelektrane na Vrbasu", a.d. Mrkonjic Grad, "Elektrodistribucija" a.d. Pale, EDP "Elektrobijeljina", a.d. Bijeljina, "Rudnik i termoelektrana Ugljevik", a.d. Ugljevik, JP "Rudnik i termoelektrana Gacko", a.d. Gacko).

Application for approval of tariffs for the distribution systems' users was submitted by five regulated companies (EDP "Elektrobijeljina" a.d. Bijeljina, "Elektrodistribucija", a.d. Pale, AD "Elektrodoboj", Doboj, "Elektrokrajina", a.d. Banja Luka, "Elektrohercegovina", a.d. Trebinje).

Application for approval of tariff rates for sale of electricity to non-eligible (tariff) customers was submitted by five regulated companies (EDP "Elektrobijeljina" a.d. Bijeljina, "Elektrodistribucija" a.d. Pale, "Elektrodoboj" Doboj, "Elektrokrajina" a.d. Banjaluka, "Elektrohercegovina" a.d. Trebinje).

In all these hearings, apart from REERS staff as active participant to the proceeding, there were representatives of the applicant and intervener. Regulator approved the status of intervener to the company "Elektroprivreda Republike Srpske" a.d. Trebinje, which filed an application for participation in all tariff proceedings as intervener.

There were no other interveners in the formal hearings of the first tariff proceeding.

Upon completion of formal hearings in January 2006, parties to the proceeding and intervener were submitted final Presiding Officer Reports (seven Presiding Officer Reports for the price approval at the plant outlet and one consolidated Presiding Officer Report for approval of tariffs for the distribution systems' users and tariff rates for the sale of electricity to non-eligible customers). Reports contained detailed technical and economic analyses of the revenue requirement and justified costs of the applicant. All parties to the proceeding were given a possibility to give their comments on the submitted Presiding Officer Reports. Presiding Officer Reports with the price proposal at the plant outlet, tariff rates for distribution systems' users and tariff rates for non-eligible (tariff customers), were published at the website of REERS in order to collect additional comments on the proposed price and tariff rates before their final adoption.

Regulator made Decision, in its 28th regular session which was held on 22 March 2006 on the price approval at the plant outlet, tariff system for the sale of electricity in Republic of Srpska, tariff rates for the distribution systems' users in Republic of Srpska and tariff rates for non-eligible customers of electricity in Republic of Srpska. The prices and tariff rates made have been applicable since 1 April 2006.

### 3.3.2 Prices of electricity in Republic of Srpska

Until 31 March 2006, the prices, determined by "Elektroprivreda RS" in agreement with Government of Republic of Srpska, were valid. On 1 April 2006, tariff system and tariff rates for the sale of electricity to non-eligible customers made by REERS became effective.

Apart from the fact that individual tariff rates were changed (unit prices of tariff elements for the respective categories of consumption and groups of customers in certain daily and seasonal intervals), the tariff system was partly modified, regarding method of determination of the capacity charge for end users within the category of households.

Tariff system which has been applicable since 1 April 2006 and which was prescribed by Regulator after the first tariff proceeding was conducted, starts from the classification of tariff elements, categories of consumption and groups of customers and periods of consumption which were already in use. Allocation of accompanying costs based on this classification was made applying the marginal analysis (analysis of marginal costs), which resulted in the change of tariff rates comparing to those existing in 2005.

Upon completion of the tariff proceeding, tariff system and tariff rates approved by Regulator were based on costs to such an extent in which there were available data on consumption, system load and costs, so that according to the available data, it was made calculation of costs related to provision of the necessary capacity for the respective groups of customers based on metered or estimated peak load of each respective group.

The tariff system defining and determination of tariff rates based on the marginal cost is meant by beginning of the Regulator activities on the gradual elimination of the cross subsidies between categories of consumption and groups of customers and connection of the electricity price with costs of the electric power system which is caused by consumption under such circumstances.

It is necessary for regulated companies to improve their system of monitoring of costs per type and place of occurrence so that Regulator can carry out its task. They should also conduct necessary load research and analysis of consumption of different groups of customers.

Regulator did not have on disposal necessary data for the analysis of possible justification to introduce new categories of consumption and tariff groups of customers within those already existing, based on costs which their way of consumption imposes to the electric power system.

In the forthcoming period Regulator expects regulated companies to conduct complete analyses of load and consumption, for the purposes of more fair allocation of costs following the principle of casualty.

Changes in relations of the electricity price for certain categories of consumption, particularly for the category of commercial customers - other consumption at low

voltage in Republic of Srpska aims at approaching the price to costs of providing electricity, tariff and tariff system designing so that the resources of the electric power system are efficiently used.

In order to design effective tariff system, it is necessary that distribution licensees systematically conduct load research and analyses of the electricity consumption.

Big end users who rationally and effectively use electricity, i.e. whose consumption corresponds to the engagement of peak capacity in the period which is not shorter than 8 hours daily, achieve considerable reduction of the total price.

Tariff rates determined by REERS in 2006 reflected the first phase in realization of REERS objectives and it is streamlining of costs in the electric power system, which was achieved by determination of the revenue based on the justified costs and approved return on the invested capital and gradual approaching of the price to the costs of providing electricity and gradual elimination of the cross-subsidies between categories of consumption, avoiding tariff shocks.

DESCRIPTION			Tariff rates for non-eligible customers of electricity							
			Capacity charge		Active electricity		Excessively taken reactive electricity		Metering point of Customers	
Categories of consumption and groups of customers		Unit measure	BAM/kW/month		BAM/kWh		BAM/kVArh		BAM/month	
		Season	VS (winter)	NS (summer)	VS (winter)	NS (summer)	VS (winter)	NS (summer)	VS (winter)	NS (summer)
Name of the category	Name of the group	Part of the day	VS (winter)	NS (summer)	VS (winter)	NS (summer)	VS (winter)	NS (summer)	VS (winter)	NS (summer)
110 kV		VT	6,6300		0,0596		0,0170		-	-
		MT	-		0,0298		-			
35 kV		VT	6,1500		0,0603		0,0209		-	-
		MT	-		0,0302		-			
10 kV		VT	7,5500		0,0621		0,0248		-	-
		MT	-		0,0310		-			
0,4 kV - other consumption	1 TG	VT	13,2200		0,0708		0,0355		-	-
		MT	-		0,0354		-			
	2 TG	ST	4,0500	2,7000	0,1675	0,1117	-	-	-	-
	3 TG	VT	4,0500	2,7000	0,2094	0,1396	0,0426	0,0284	-	-
		MT	-	-	0,1047	0,0698	-	-		
	6 TG	ST	4,0500	2,7000	0,1044	0,0696	-	-	-	-
	7 TG	VT	4,0500	2,7000	0,1304	0,0870	0,0426	0,0284	-	-
		MT	-	-	0,0652	0,0435	-	-		
0,4 kV - public lightning		ST	-		0,1253		-		-	
0,4 -	1 TG	ST	1,5000	1,0000	0,1044	0,0696	-	-		

households	2 TG	VT	1,5000	1,0000	0,1304	0,0870	-	-	-	-
		MT	-	-	0,0652	0,0435	-	-	-	-

Table 4 - Tariff rates for non-eligible customers of electricity

An important step towards the opening of electricity market is making tariff rates for the network use. Defining tariff rates of the grid tariff, conditions are created for end users to obtain electricity under the same, i.e. equal conditions from suppliers whereby the conditions of the network use are regulated, so non-loyal advantage of distributor or a party connected to distributor, in the market match, is prevented.

Tariff rates for distribution systems' users									
DESCRIPTION			Capacity charge		Active electricity		Excessively taken reactive electricity		
Categories of consumption and groups of customers		Unit measure	BAM/kW/month		BAM/kWh		BAM/kVArh		
			Season	VS	NS	VS	NS	VS	NS
Name of the category	Name of the group	Part of the day		(winter)	(summer)	(winter)	(summer)	(winter)	(summer)
35 kV		VT	6,14		0,0033		0,0209		
		MT	-		0,0016		-		
10 kV		VT	7,52		0,0047		0,0248		
		MT	-		0,0024		-		
0,4 kV - other consumption	with capacity metered	VT	13,19		0,0135		0,0355		
		MT	-		0,0068		-		
	one-tariff	ST	3,76	2,50	0,0493	0,0329	-	-	
		VT	3,76	2,50	0,0616	0,0411	0,0426	0,0284	
two-tariff	MT	-	-	0,0308	0,0205	-	-		
	ST	-	-	-	-	-	-		
0,4 kV - public lightning		ST	-		0,0783		-		
0,4 - households	one-tariff	ST	2,08	1,39	0,0493	0,0329	-	-	
		VT	2,08	1,39	0,0616	0,0411	-	-	
	two-tariff	MT	-	-	0,0308	0,0205	-	-	

Table number 5 - Tariff rates for distribution systems' users

REERS determined tariff rates for distribution system users so that the end user willing to take its right to choose as eligible customer has got a clear and transparently expressed price of use to electric power network, including all costs which are calculated at the transmission network. Determining tariffs for the



network usage, it was created the basic precondition for opening of the retail electricity market.

For customers from the category "other consumption at low voltage" and category "households" whose capacity is not metered, the capacity charge was determined in the following monthly amounts:

- other consumption at low voltage", II and III tariff group: 5 kW per customer
- other consumption at low voltage" VI and VII tariff group: 7 kW per customer
- "households" I tariff group: 3,3 kW per customer
- "households" II tariff group: 5,2 kW per customer

### 3.4. Protection of customers

#### 3.4.1. Regulatory framework of the customer protection

The Law on electricity prescribed the following competences of Regulator regarding protection of customers:

- regulation of quality of service, tariffs and profitable prices, taking into account the interests of customers and needs of the company for delivery of electricity,
- provision of transparent and non-discriminatory behavior at the electricity market,
- making measures for prevention of the misuse of the monopolistic position of the licensees,
- participation in making agreement between customers and suppliers of electricity
- provision of other indirect goals of protection while prescribing license requirements for realization of certain electric power activity

Problems of protection of customers in Bosnia and Herzegovina were regulated by the Law on protection of customers ("Official Gazette of Republic of Srpska", number 25/06).

Protection of customers is one of significant issues of the regulation policy in all countries in which there are ongoing processes of de-regulation and liberalization of the energy sector. For that purpose, regulatory bodies are more and more assigned obligation and task to consider the issue of protection of customers, protection of the electric power structures and environment at the open electric power market.

Protection of customers has got several aspects:

- protection of customers under monopolistic circumstances regarding realization of the right for the access to electricity under equal conditions, with transparent and already known rules and at reasonable and justified prices based on costs,

- protection of end users regarding provision of the universal public service (customers in remote areas, consumers with small consumption and consumers that might be neglected by the supplier),
- social vulnerability regarding the amount of expenses for electricity against the revenues of households and possibilities of households to afford themselves minimum human living conditions (customers with low income)

Protection of rights of customers is within regulatory competence regarding the right for the access to the network and related issues within the protection of customers against the misuse of monopolistic position of the licensees.

Basic elements of providing equality and non-discrimination in the distribution network use and electricity supply of end users which were the subject of Regulator operation are:

- defining of conditions for delivery and supply of electricity, minimum standard of service and binding elements of the contracted protection of electricity customers under the conditions of monopoly,
- already known, easily comparable prices of services, determined in a clear and objective way based on the already defined methodology and applied without discrimination,
- provision of the right to simple, quick and effective procedure of the customer protection in case of violation of his rights

Protection of rights of end users regarding access to the network and network usage, minimum standard of service and contracted protection in relations with the licensee for distribution of electricity and licensee for supply was defined by General Conditions for delivery and supply of electricity. This document prescribed all rights and liabilities of the network beneficiaries and end users, licensee for distribution of electricity and licensee for supply, procedures for connection and access to the network, elements of the contract and information that have to be offered to the customer.

Regarding protection measures of end users, and particularly protection of vulnerable consumers, including measures of assistance to avoid disconnection as well as measures of protection of customers in remote areas, General conditions prescribed conditions for disconnection of the customer from the network, disconnection procedure, prohibition that the disconnection date is public holiday, weekend or the day when the call center of licensee is not working. Also, it is forbidden to disconnect customer that uses electric-medical equipment for the health purposes. In case of extremely cold weather, termination of delivery may be applied only as the final measure.

Provisions of the Rule on getting a status of eligible customer additionally, in the transitional period of the market opening, determined obligation of the supplier of last resort for eligible customers (whereby households are not yet eligible customers, so this guarantee does not refer to them).

In 2006, REERS determined tariff rates for distribution systems users and tariff rates for non-eligible customers of electricity pursuant to the provisions of the Rule on tariff methodology and tariff proceeding and in that way it provided that the prices of electricity should be determined based on the already defined methodology, based on the objective criteria, transparently published before application and applied without discrimination.

REERS monitors application of the law and secondary legislation which are assigned to it, including supervision of the tariffs' application.

Acting pursuant to the Conclusion of the National Assembly of Republic of Srpska, number 01-404/06 dated 12 April 2006, made in the 33rd regular session which was held on 12 April 2006, Regulator made Conclusion, in its 31st regular session which was held on 11 May 2006 regarding calculation of interests on receivables based on the electricity delivered which, among other things, determined obligations for companies dealing with distribution and supply of end users with electricity regarding calculation, invoicing and payment as well as the obligation to check already calculated interests. These measures resulted in correction of calculation with those companies that calculated the interest against positive regulations.

Provisions of the Rule on public hearings and settlement of disputes and complaints define procedures for settlement of objections and complaints of end users on decisions and actions of the licensee for distribution of electricity and licensee for supply and subsequently, the end users are provided with protection in a quick, cheap and effective way in case of violation of rights for which protection Regulator is in charge of. Detailed data on settlement of disputes and complaints are given in 3.4.1.1.

#### 3.4.1.1. Settlement of disputes and complaints

Introducing regulation in the electric power sector, it was encouraged the policy of active protection of customers and it was established the communication between different participants at the electricity market, particularly end users with Regulator, which was particularly obvious in 2006. Regulator settles the disputes regarding:

- the right for the electricity supply,
- the right of access to the distribution network,
- obligation to deliver electricity,
- tariffs at which electricity is delivered,
- terminations in the electricity supply,
- denial to deliver electricity and
- quality of the electricity supply

Generator of electricity, or eligible customer of electricity who was denied access to the network or is not satisfied with conditions for the access, may lodge a complaint to Regulator. Valid regulations defined fundamental conditions that might deny access to the network which are mostly brought to limitation of technical or operational possibilities.

Apart from the above mentioned, Regulator decides on the complaints for decisions of the application for getting electric power consent for connection of end users to the distribution network.

In 2006, Regulator was submitted 117 applications for settlement of disputes within regulatory competence, out of which 112 were settled till the end of 2006.

In 2006 it was received and settled two complaints on decision about the electric power consent issued.

Due to many objections of the customers on the out-dated status of obligations towards regulated companies, that turned to Regulator in order to initiate the disputes, Regulator held a special technical hearing and invited representatives of the companies dealing with calculation, invoicing and payment of receivables from end users, associations of end users, representative of the Ombudsmen Office of Republic of Srpska and experts for the obligatory relations, to be present there. Disputes regarding the issue of out-dated status are not within regulatory competence, but Regulator initiated the hearing so that regulated companies treat these problems in a legal-based way and without discrimination of customers. Report from the technical hearing was published at website of Regulator and conclusions were adopted in which Regulator formulated its standpoint regarding these disputes.

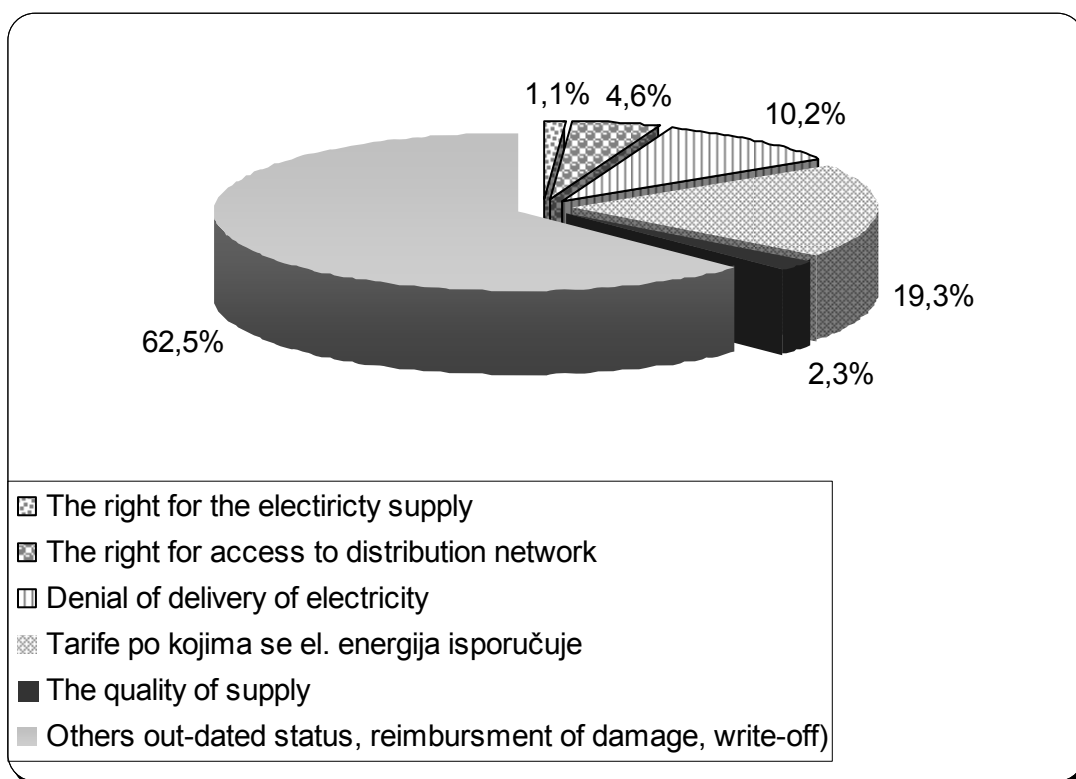


Figure 1 - Structure of the settled objections in 2006

### 3.4.2. Protection of the socially-vulnerable customers

When it is about protection of the socially vulnerable customers regarding the amount of cost for electricity and affordability of electricity for socially vulnerable customers, these issues do not belong to the immediate regulatory competence.

However, taking into account that affordability of electricity firstly depends on tariffs and inter-dependence of different mechanisms of protection of customers, REERS gave its contribution to many activities which were conducted in Republic of Srpska, BiH and Energy Community of South East Europe and which aimed at improvement of mechanisms of protection of socially vulnerable end users and increase of the electricity affordability for end users in case of social need.

There is no special mechanism of protection applicable in RS for socially vulnerable customers of electricity that would be linked to the expenses for electricity.

Based on the available data, REERS attempted to provide for inspect for interested parties to available information, which may be important for estimate of vulnerability of end users from the standpoint of the electricity affordability.

Standard customers from the category of household, according to EUROSTAT methodology consume 3500 kWh of electricity annually, out of which 1300 kWh at night (i.e. at low tariff). The average price in EU-15 countries amounted to 10.94 Ec/kWh in 2006.

Average customer from the category of household in RS consumes 3600 kWh of electricity. Average price in 2006 for the standard customer from the category of household in RS amounted to 5.76 Ec/kWh.

The expense for electricity amounts to 16% of the minimum salary in RS, and 7.21% of the average salary, while in EU-15 countries that percentage amounts to 5% of the minimum salary.

The study of "Social estimate of the customers of electricity and valuation of the social protection program" from 2004 gives some data on social condition of the customers.

According to the orders of the mentioned study, and pursuant to the definition of socially vulnerable customer provided by ERGEG (customer that was defined by the law as a person that should be protected in his relationship with supplier), structure of the socially vulnerable customers<sup>1</sup> in RS is as follows:

<b>Category of social vulnerability of persons</b>	<b>Number of persons in the category</b>	<b>Number of social welfare beneficiaries</b>
Persons not capable for work and without material	42,981	25,551

<sup>1</sup> Data from 2003 and 2004

insurance		
Invalids and disabled persons	25,428	16,012
Unemployed	147,635	1,677
Elderly people without family care	43,143	16,422
Retired persons with low income	96,642	

Table 6 - Data on social vulnerability

Since the customer of electricity is not only one physical person but household, number of persons - beneficiaries of social welfare program is the closest number to the number of customers that may or should get the right for protection in the electricity supply.

To subsidize consumption of electricity which covers basic essential needs in the household, and which are, depending on the method of determination, from 75 to 200 kWh monthly, to subsidize consumption of persons - social welfare beneficiaries, according to the data stated in the Study, it is necessary to subsidize at least 4 to 11 GWh of the electricity consumed monthly in RS, which means the annual expense of 5 million BAM annually (for 75kWh of monthly consumption) i.e. 13 million BAM for subsidizing 195 kWh of the monthly consumption.

### 3.5. General conditions for delivery and supply of electricity

The aim of making General Conditions is to improve effectiveness, safety and fairness in delivery and supply of electricity as well as provision of transparent and non-discriminatory behavior of the structures in the electric power sector.

General conditions for delivery and supply of electricity provide that supply and delivery of electricity, connection of structures of end users and generators to the distribution network in Republic of Srpska, as well as relations between end users, licensees for distribution, licensees for supply and licensee for trade and supply of electricity and licensee for generation of electricity which structures are connected to the distribution network, particularly:

- Conditions and method for connection of structures of end users or generators to the distribution network, including:
  - issuance of the electric power consents,
  - submission of application for connection, criteria and conditions for connection of the end user structures or generator to the electric power network and
  - method and deadline for conclusion of contract for connection to the electric power network, contract on the access to network and contract on the electricity supply,
- Quality of delivery and supply of electricity,
- Method the electricity consumed is metered, read, calculated and paid,

- Requirements regarding accuracy of the metering devices,
- Terms and conditions, measures and timetable of limitation of delivery of electricity, in case of general shortage of electricity,
- Terms and conditions under which delivery of electricity may be terminated to end user,
- Method of informing end users in case of termination and limitation in delivery of electricity,
- Terms and conditions to calculate and pay for damages, caused by unjustified termination of electricity delivery, delivery of electricity of low quality or limitation of delivery of electricity
- Conditions at which delivery of electricity is not terminated to customers, including those cases when the electricity consumed is not paid as well as method to regulate mutual obligations in such cases,
- Measures undertaken in case of damages in the electric power system and protective measures of the electric power system against excessive consumption,
- Method of determination of the quantity and capacity of the electricity consumed in non-authorized way, as well as the method of calculation and payment of those quantities of electricity
- Terms and conditions for connection of the site and temporary structures

In 2005, Regulator initiated activities related to creation of draft General Conditions for delivery and supply of electricity in Republic of Srpska and such draft was determined in the 29th regular session which was held on 20 April 2006. Press releases for collection of comments and public hearing was published on time in newspapers, while draft General Conditions with rationale was submitted to the interested parties independently and may be taken in the REERS head-office. Those interested and physical persons, as well as invited experts submitted written comments on the draft General Conditions in the period from the day when they are published until the expiry day for submission of comments on 25 May 2006.

In the process of public considering of Draft General Conditions, REERS held two technical (Trebinje, 16/05/2006 and Banja Luka 24/05/2006) and three general hearings (Pale, 18/05/2006, Bijeljina 19/05/2006 and Doboј, 23/05/2006).

REERS held one additional technical hearing on 14/06/2006 in Trebinje, which subject was the revised Draft General Conditions with the public comments and expert comments included and accepted by professionals of REERS.

The mentioned text of the draft General Conditions with Summary of comments and proposal for amendments of the draft General Conditions was published at the website of REERS so that all interested persons may participate again in the proceeding related to development of the General Conditions proposal, within the given deadline until 14/06/2006.

Upon the conducted proceeding of public consideration and analysis of the comments received, it was made proposal of General Conditions for delivery

and supply of electricity which was adopted in the 34th regular session which was held on 29 June 2006.

General Conditions for delivery and supply of electricity were published in the "Official Gazette of Republic of Srpska" number 66/06.

### 3.6. Market opening

One of the basic objectives of the energy market opening is to enable equal, transparent and impartial conditions for suppliers of electricity to supply customers and vice versa, the right of customer to choose supplier. In Article 1 of the Law, it was prescribed that it "tends to promote gradual liberalization of the national electricity market" following the principles of non-discrimination and quality of persons and property.

Monopolistic activities, such as control of transmission and distribution network and provision of ancillary services for the effective operation of the electric power system are the subjects of the complete regulation of the competent body. Generation of electricity, trade and supply of electricity for end users is gradually liberalized by introducing market mechanisms.

Having ratified the Treaty on establishment of the Energy Community of South-East Europe, Bosnia and Herzegovina accepted the application of the European Union Directives on the energy market, protection of environment, competition and renewable energy following the timetable stipulated by the Treaty. According to the accepted laws and internationally taken obligations, Bosnia and Herzegovina joined other countries in the region which had already opened their markets.

Introduction of competition at the electricity market in BiH and liberalization of that market required preparation and adoption of certain secondary legislation by the regulatory bodies in BiH.

SERC and entity regulatory commission initiated in a coordinated way activities related to development of regulations that will enable the initial opening of the electricity market in Bosnia and Herzegovina. State regulatory commission for electricity in 2006 made Decision on volume, terms and conditions and timetable of the market opening in BiH based on the Law on transmission, regulator and system operator of electricity in BiH, while REERS and FERC prescribed criteria for getting a status of the eligible customer with the Rule on getting a status of eligible customer which created conditions for gradual opening of the electricity market in Bosnia and Herzegovina.

REERS determined draft Rule for getting a status of eligible customer on 10/08/2006 and after the public hearing this documents was adopted on 06/09/2006 in the 34th regular session and published in the "Official Gazette of Republic of Srpska" number 88/06. Application of the Rule opens a possibility for end user to freely choose supplier, while the Rule itself regulates terms and criteria for getting a status of eligible customer, his rights and obligations, rights



and obligations of the supplier, particularly during the transitional period of the gradual opening of the market, taking into account the need for adaptation to new circumstances and need to provide for safety of electricity supply of users.

Making the Rule on getting a status of eligible customer, there were formal-legal preconditions created, within the Regulator competence, for the electricity market opening. Beginning of establishment of the competitive market for customers with the annual consumption of electricity, more than 10 GWh, was determined for 1 January 2007. After that, as of 1 January 2008, small industrial and commercial customers are entitled to choose the supplier and end of 2015, all end users, including end users from the category of household.

Dynamics of the market opening is determined pursuant to the realization of key assumptions, which are, among other things, establishment of the system operator and issuance of the license for trade and supply, making grid rules, market rules, grid tariffs and tariffs for ancillary services, following the adopted timetable within the process of establishment of the energy community of South East Europe.

Regulator made rules on getting a status of eligible customer that shall enable gradual changes within the sphere of trade and supply of electricity, in order that opening of the wholesale market and the right to choose supplier do not have an adverse impact on the safety of supply of electricity for end users in Republic of Srpska in the transitional period until electricity market is defined and established in Bosnia and Herzegovina.

### 3.7. Renewable energy sources

#### 3.7.1. Renewable energy sources and energy policy

Most European countries have already committed themselves to within the energy policy develop plans of greater use of the renewable energy source and to adapt the legal framework in which those plans shall be implemented. Based on those initiatives, it was made Directive on promotion of electricity from the renewable energy sources (2001/77/EC) which requires increase of share of the renewable sources in generation of electricity.

Having signed the Treaty on establishment of the energy community, Bosnia and Herzegovina committed itself to apply those mentioned EU directives on renewable energy sources (energy of wind, hydro energy, solar energy, biomass and waste, bio gas, geothermal energy) and it should attempt to comply with the Kyoto protocol. Plan for implementation of Directive 2001/77/EC shall be submitted by Bosnia and Herzegovina to the European Commission within a year from the effective day of the Treaty on establishment of the energy community.

End of 2006, REERS participated in preparation of the plan development for implementation of Directive 2001/77/EC. Development of the mentioned plan for

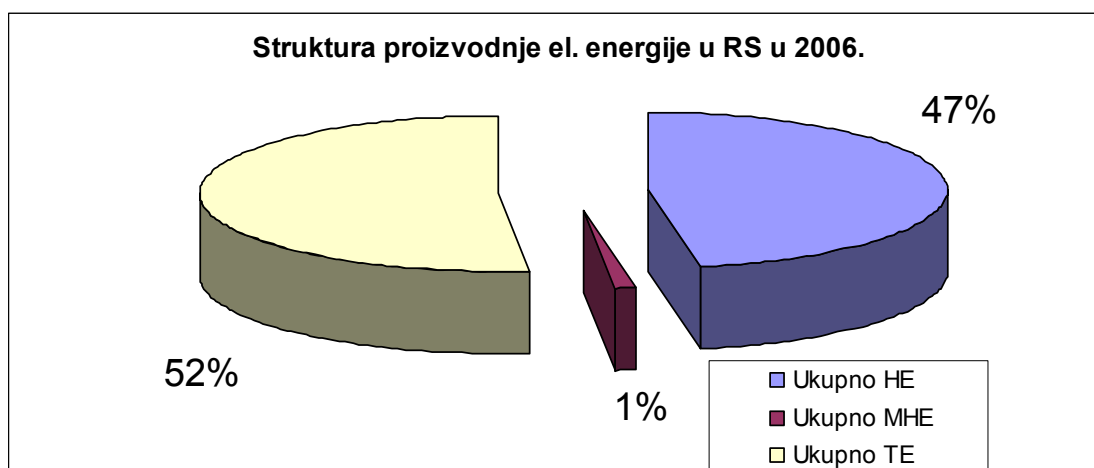
BiH, in coordination with the Ministry of economic affairs and foreign trade of BiH, as well as its submission to the European Commission was planned for 2007.

The basic issues treated by Directive 2001/77/EC and plan for its implementation is as follows:

- Indicative objectives of share of generation of electricity from the renewable energy sources in the gross consumption of electricity
- Incentive mechanisms for generation of electricity from the renewable energy sources
- Regulatory Commission for electricity of Republic of Srpska undertook a range of activities for provision of bases for development of indicative plans which were related to development of overview of the existing condition, potential as well as possible sceneries for promotion of use of the renewable energy sources in Republic of Srpska. While creating those documents, there were experiences of the EU neighboring countries used.

Some indicative data are given in the forthcoming graphs in which it is presented the structure of the electricity generation in RS, share of electricity from the renewable energy sources (RES) and gross consumption of Republic of Srpska, and percentage share of some generation facilities which use RES in generation of electricity from RES in RS.

- In Republic of Srpska, renewable energy sources are only used by hydro-energy, while share of electricity generation from the renewable energy source in gross consumption of electricity in Republic of Srpska in 2006, amounted to approximately 80%.



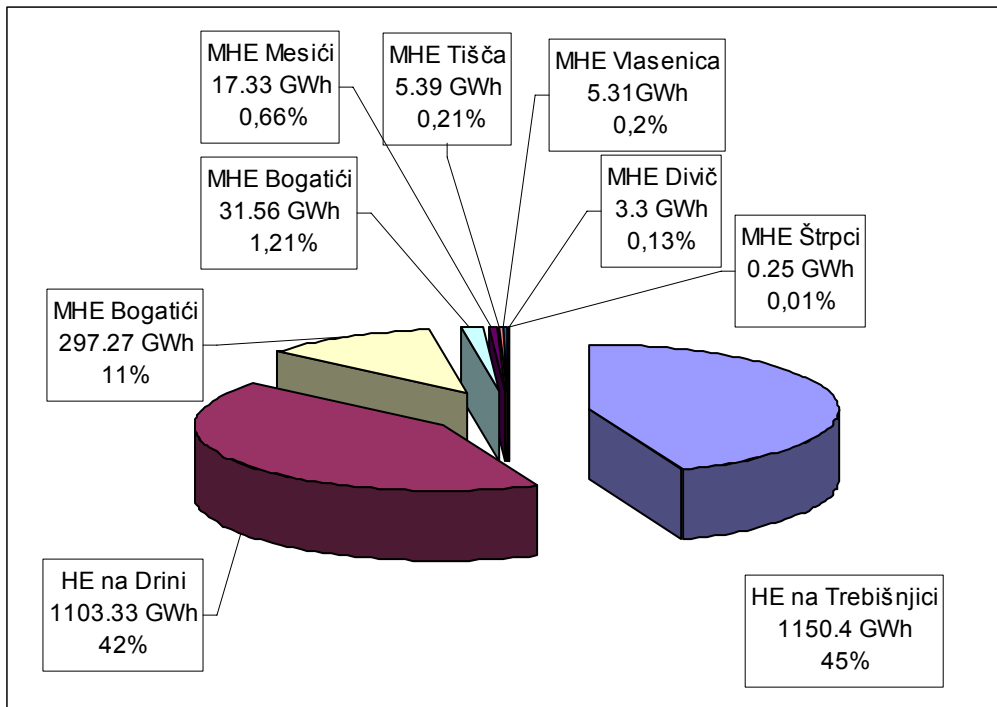
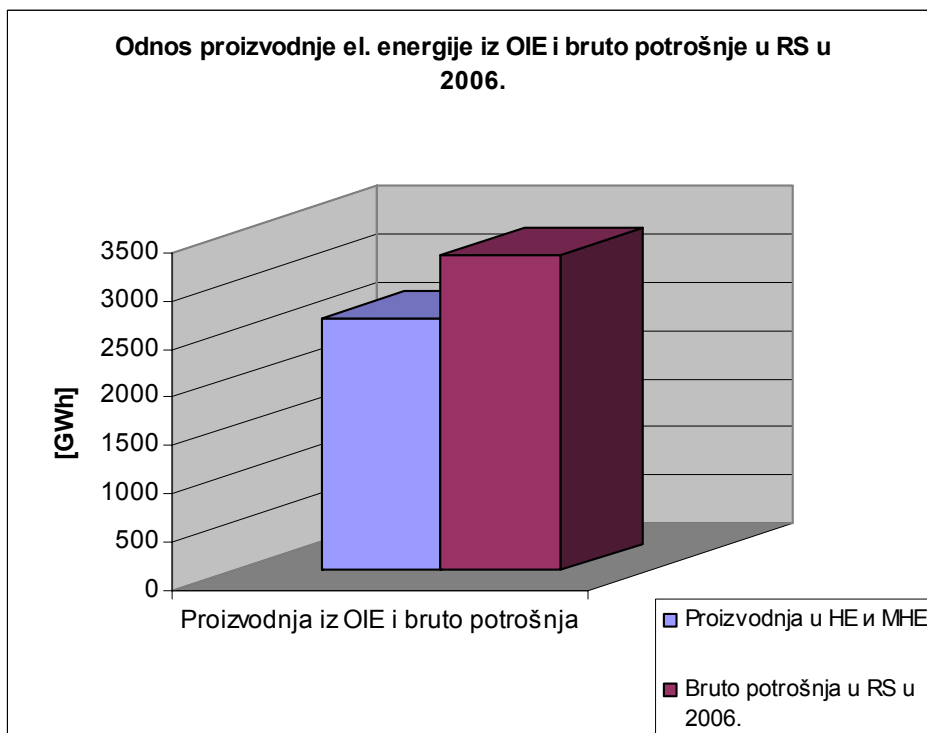


Figure 2 - Share of particular structures in generation of electricity from RES



### 3.7.2 Rule book on getting a status of eligible generator

Use of renewable sources was included in the Law on electricity of Republic of Srpska. Article 30 of the Law prescribed that Regular was responsible to make subsidies for the sources which use waste or co-generation of heat electricity, while Article 37 stipulated that the company which in its individual generator structure generates electricity using the waste or renewable energy sources, in a cost-effective way and pursuant to the environment protection measures, may get a status of eligible generator, based on the conditions prescribed by Regulator.

In order to implement mentioned legal provisions, Regulator activities on development and making secondary legislation on getting a status of eligible generator.

This document should prescribe conditions and method of use of renewable energy source, qualify facilities which use renewable energy sources, define certain rights and obligations at the energy market and determine methods for encouragement of generation of electricity from renewable energy sources. The status of eligible generator should enable privileges for encouragement of construction of capacities while subsidies and other forms of incentives for use of the renewable energy sources should comply with energy policy and EU directives. REERS faced the fact that, at the level of Republic of Srpska, there was no power policy which may define mechanisms of the state encouragement for the capacity building and use of electricity from renewable sources per priorities of particular resources and available technology.

Government of Republic of Srpska has got an important role in this field, which is pursuant to Article 5 of the Law in charge of power policy, including possibilities to use different primary sources of energy and use of renewable source for generation of electricity.

European Union Directives prescribed that countries members should determine indicative target values of share of energy from renewable sources in total consumption of electricity and that Regulator, while making regulations from this field, should rely on relevant elements of the power policy.

REERS activities related to making rules on conditions for getting a status of eligible generator, regarding subsidies and other mechanisms for encouragement of renewable sources depend on formulated power policy of Republic of Srpska.

Acting pursuant to the application of the Ministry of economy, energy and development of Republic of Srpska, REERS, in its 31st regular session which was held on 12 May 2006, considered regulations and procedures related to determination and application of electricity prices for small plants, capacity up to 5 MW, and gave its opinion on electricity prices for small plants up to 5 MW.

In this document, REERS determined its position in relation to costs of distributor and supplier of tariff customers while taking electricity from hydro power plants connected to their network. The standpoint of REERS is that they will approve of, as justified, the cost of procurement of electricity if it equals to or is less that avoided costs of providing the same amount of electricity through the transmission network. Under those circumstances when the power policy is not defined

regarding the structure of renewable sources and indicative objectives of their share in total consumption, such an access of REERS provides that the obligation for taking electricity at distribution network does not have a negative impact on the price for end users, and at the same time generators - small hydro electric power plants are given relatively reliable framework of the sale price based on which they can plan their operation.

### 3.8 Cooperation

#### 3.8.1. ERRA - Energy Regulators Regional Association

Energy Regulators Regional Association is the association of the regulatory bodies of the countries of central and east Europe, former Soviet Union countries and Turkey with its seat in Budapest. ERRA has got 21 full and 5 associated members. Objectives of ERRA are improvement of regulation of the power activities in the countries members, encouragement of development of independent and stable regulators, improvement of cooperation between regulators, sharing information, research and experiences between members, better access to information on the world experience and regulation of power activities.

State Regulatory Commission for electricity of BiH (SERC) has been a full member in ERRA since 19 May 2004. In the forthcoming period, REERS plans for filing an application for getting a status of the associated member in this association, since according to the ERRA statute, full members can only be state regulatory commissions.

Members and staff of Regulatory Commission for electricity of Republic of Srpska actively participate in the work of this association and its permanent committees and working groups through SERC.

#### 3.8.2. ECSEE - Energy Community of the South East Europe

Energy Community of South East Europe was established by the Treaty concluded between the European community, on one side and following countries: Bosnia and Herzegovina, Croatia, Serbia, Montenegro, Albania, Macedonia, Romania and Bulgaria, as well as UNMIK on the other side.

Concluding the Treaty, members-parties commit themselves to establish common market of electricity and gas that shall function applying the standards and EU electricity market rules that it shall be integrated with. The Treaty enables establishment of the internal market for electricity and gas with effective participation of 34 sides: 25 EU countries and above mentioned countries signatories.

The aim of this Treaty is, also, to create a stable regulatory and market framework that might attract investments in the electricity and gas sector in the region and provide for long term safety of supply with these energy items.

Figure 3 - Countries signatories of ECSEE Treaty

Bosnia and Herzegovina has actually adopted Acquis Communautaire of the European Union in the sphere of energy and took the obligation to adapt its legislation with them within the deadlines prescribed by the Treaty in the following table:

subject		relevant regulation of "acquis communautaire"	deadline for application	special provisions
<b>network energy</b>			12 months from the effective day of the Treaty (01.07.2007)	Annex of the I Treaty (for electricity and gas market opening)
1.	electricity	Directive 2003/54/EC, and Regulation 1228/2003/EC		
2.	gas	Direktiva 2003/55/EC,		
<b>protection of environment</b>				
1.	Kyoto Protocol	It is recognized the importance without an obligation to join		
2.	estimate of the project effects on Environment	Directive 85/337/EC, 97/11/EC, 2003/55/EC,	the effective day of the Treaty	
3.	prevention and control of pollution	Directive 96/91/EC	obligation to apply for new structures	
4.	reduction of the amount of sulfur in liquid fuels	Directive 1999/32/EC, 93/12/EEC	until 31.12.2011.	Annex II of the Treaty
5.	limit of the burning products emission	Directive 2001/80/EC	until 31.12.2017.	
6.	protection of wild birds	Directive 79/409/EC		
<b>competition</b>				
1.	forbidden practice	Principles of the Treaty on establishment by EU (Article 81, 82, 87)	6 months from the effective day	
2.	services of general economic interests	principles from Article 86 of the Treaty on establishment by EU	6 months from the effective day	
<b>renewable sources</b>				
1.	promotion of energy from renewable sources	Directive 2001/77/EC	To submit the plan of implementation to the European Commission within a year from the effective day of the Treaty (until 01/07/2007)	
2.	promotion of use of bio-fuels and other renewable fuels for transport	Directive 2003/30/EC		

*Table 7 - EU Acquis Communautaire that legislation in BiH is to be adapted to*

The work of Regulatory Commission for electricity of Republic of Srpska, within the process of the establishment of the energy community of the South East Europe, in 2006, was carried out in cooperation with the Ministry of foreign affairs and economic relations of BiH, Ministry of economy, energy and development of Republic of Srpska through the participation in realization of different projects which in a function of establishment of the Energy Community such as:

- Development of the "Benchmarking Report" on implementation of provisions of the Treaty on establishment of the Energy Community through filling in the forms prepared on purpose and giving the comments on the final reports and
- Development of the Road Maps and Action Plans for implementation of the Treaty provisions

Apart from the above mentioned, members and staff of the Regulator participated in the Athens Forum session. Invited by the representative of the Department for

energy of the European Commission in 2006, representatives of REERS participated in:

- 8th Athens Forum held on 22-23 June 2006 and
- 9th Athens Forum held on 23-25 October 2006

Presence of REERS representatives at important events in the process which is opened by establishing the Energy Community of the South East Europe was limited due to great volume of activities within the scope of development of regulations, monitoring of the license requirements compliance and application of tariffs, applications of the regulated companies for interpretation of regulations and settlement of numerous disputes. However, this activity is becoming more important due to measures and activities made by the Energy Community bodies, and which have significant consequences on the electric power sector, establishment of the market and participants at the markets as well as the end users in RS. Presence and active participation of representatives of the Regulator and other representatives from Republic of Srpska in the process related to establishment of measures and action directions may help interests of the electric power sector and end users from Republic of Srpska be presented in a best possible way and taken into account in these activities.

### 3.8.3. Cooperation with other Regulatory Commissions

Regulatory Commission for electricity of Republic of Srpska has had a very successful cooperation with State Regulatory Commission for electricity (SERC), with its seat in Tuzla and Regulatory Commission for electricity in Federation of Bosnia and Herzegovina (FERC), with its seat in Mostar. Apart from the joint participation in trainings and seminars, all three commissions have been cooperating in making rules and regulations within its competence. Full cooperation and contacts are also established by the staff in regulatory commissions mutually sharing experiences and knowledge within some spheres of the regulatory work.

### 3.8.4. Participation in trainings, conferences and seminars

In the period from 12 to 14 September 2006, there was a training of the REERS staff, organized by USAID - Pierce Atwood, along with two other regulatory commissions in BiH on the subject "Preparation of Regulator for issuance of permanent licenses and protection of customers in the process of the market opening". In this three-day' seminar, it was considered experiences related to monitoring of the electric power companies and presented different models of the customer protection while opening of the electricity market.

Apart from the above mentioned, representatives of REERS, actively took part in the work of seminars related to the electric power sector:

- JUKO CIGRE seminar, Tara, 30.05 - 02.06.2006
- BiH Committee CIGRE in Neum

- The second regional meeting on the electric distribution networks, CIRED Zlatibor 17-20.10.2006
- Quality system training about Protection of Environment, organized by the Research and technological centre Novi Sad, Tara 13 - 18.03.2006
- Seminar organized by the Slovenian E-forum about the Renewable energy sources of electricity, Maribor 10 -11, 2006
- Seminar for accountants and auditors of RS in Teslic, 21-23.09.2006
- Seminar about the Treaty on establishment of the Energy Community, TAIEX, Sarajevo, 07-09.02.2006
- Open international seminar of the countries of South-East and Central Europe - system of certification of the renewable energy of RESC - Maribor, 21.09 - 23.09.2006
- Round table discussion, "Distribution sources of electricity in BiH", Faculty of electrical engineering, Tuzla, 25.10.2006
- Round table discussions "Directions and prospects of the construction of the electric power capacities in BiH", Foreign trade Chamber of BiH, Sarajevo, 20.12.2006

Regulator intends to follow the work of other important events, conferences and seminars within the scope of regulation of the electric power activity in the future, because in that way it contributes to improvement of rules of the regulatory branch and solves the problems related to liberalization of the energy market in accordance with the general movements in EU and region.

#### 4 Staff, organization and transparency of work

##### 4.1 Staff and organization of the work of the Regulatory Commission

President and members of the Regulatory Commission for electricity of Republic of Srpska, pursuant to Article 15 of the Electricity law are nominated by the National Assembly of Republic of Srpska, at the proposal of the Government of Republic of Srpska. Regulatory Commission has three members, one of which is the president.

In 2006, Regular made some staff changes in a sense that three trainees, that used to be employed for a definite period of time, were engaged now for non-definite period, pursuant to the Rule on work and internal organization.

There are 27 workers in the Regulatory Commission. All employees in the Regulator were employed in the process which is open for the public, having announced the vacancies and pursuant to the prescribed terms and conditions of the Regulator for employment. The work of REERS is organized in 4 sectors and all employees meet prescribed conditions and are qualified for the work they perform.



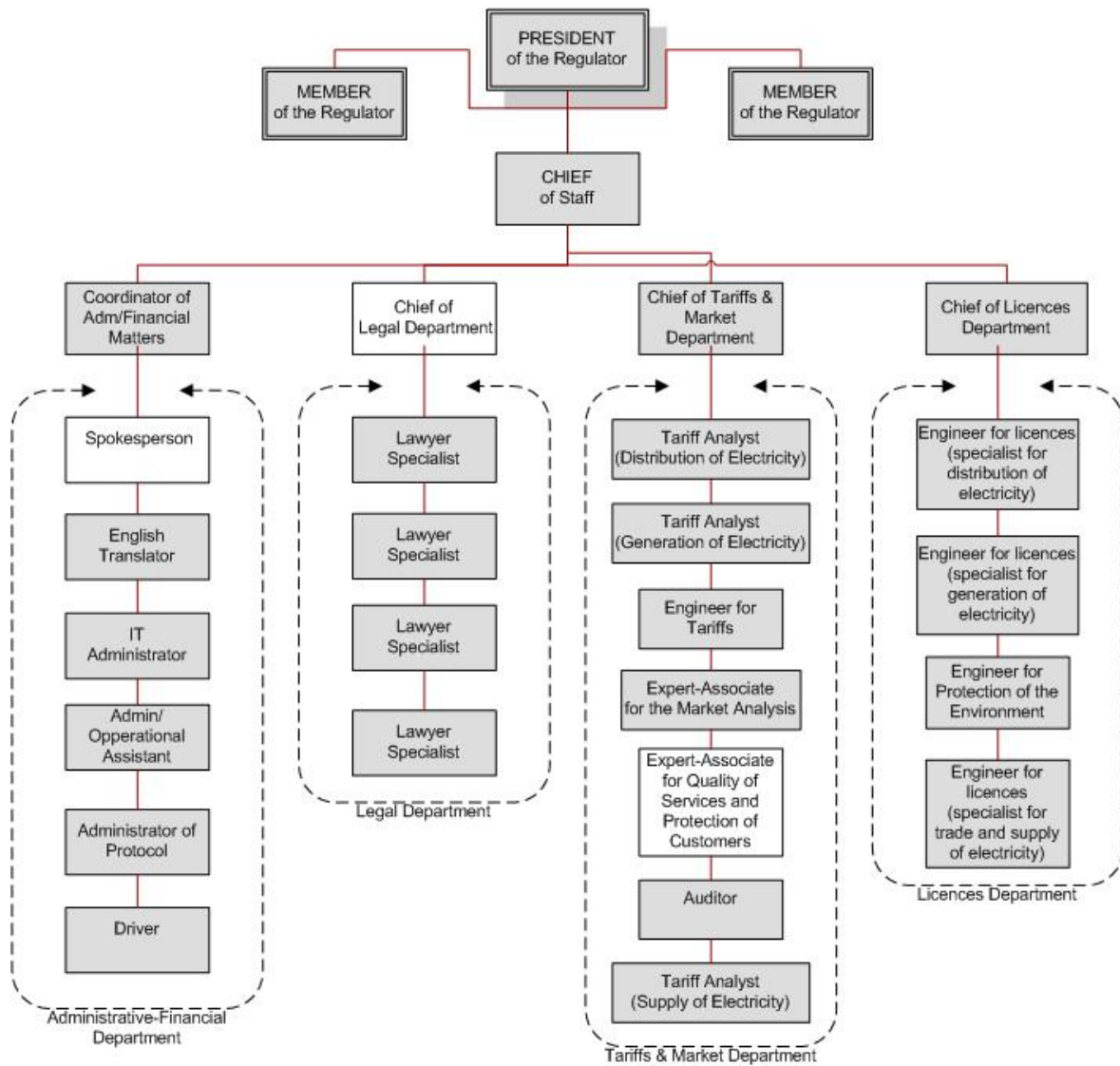


Figure number 4 - Organizational scheme of the Regulatory Commission for electricity

#### 4.2. Transparency of work of the Regulatory Commission

The obligation of the Regulator is to ensure the transparency of work prescribed by the Law. This obligation was met by the Regulator through:

- publication of all decisions, rulings, conclusions, opinions and other documents at its notice board, official webpage ([www.reers.ba](http://www.reers.ba)) and Official Gazette of Republic of Srpska, pursuant to regulations;
- enabling the access of the public to all regular sessions of Regulator and notifying them on time;
- publication of information and notices, in newspapers, at official webpage and notice board

#### 5. Financing of the Regulatory Commission

## 5.1. Financing

Regulatory Commission for electricity of Republic of Srpska, as stipulated by the Law on electricity and Statute of the Regulatory Commission for electricity of Republic of Srpska is financed from fees from the companies dealing with generation, distribution and trade of electricity, fees for licenses issued pursuant to the Law, as well as donations from foreign governmental and non-governmental organizations.

		Budget for 2006	Realization until <b>31.12.</b> 2006.	Share of the realized costs	Realization percentage
<b>I</b>	<b>EXPENDITURES</b>				
A	CURRENT COSTS	1,315,700	1,212,442	97.91	92.15
1.	Salaries and reimbursement of costs of the staff	896,500	891,517	72.00	99.44
1.1.	Gross salaries and reimbursements	896,500	891,517	72.00	99.44
1.1.1.	Net salaries and reimbursements	589,803	589,130	47.58	99.89
1.1.2.	Taxes and contributions on the salaries and contributions	306,697	302,387	24.42	98.59
2.	Costs of material and services	419,200	320,925	25.92	76.56
2.1.	Transport costs	57,500	44,209	3.57	76.89
2.2.	Costs of energy	18,000	17,604	1.42	97.80
2.3.	Costs of public services	42,200	37,967	3.07	89.97
2.4.	Procurement of material	38,000	26,766	2.16	70.44
2.5.	Costs for transport and fuel	18,000	13,527	1.09	75.15
2.6.	Rent of property and equipment	89,000	81,756	6.60	91.86
2.7.	Costs of regular maintenance	8,500	6,072	0.49	71.44
2.8.	Costs of insurance and bank services	22,500	7,976	0.64	35.45
2.9.	Contracted and other services	125,500	85,048	6.87	67.77
	Non-used depreciation		20,622	1.67	
	Depreciation used	56,000	25,848	2.09	46.16
B	CAPITAL EXPENDITURES			0.00	
1.	Procurement of equipment	56,000	25,848	2.09	46.16
A+B	TOTAL EXPENDITURES	1,371,700	1,238,290	100.00	90.27
	II REVENUES			0.00	
1.	Revenues from fees of companies dealing with generation, distribution and trade of electricity	1,371,700	1,381,810	98.50	100.74
2.	Other revenues	0	20,991	1.50	
3.	TOTAL REVENUES	1,371,700	1,402,801	100.00	102.27
4.	Paid but non-used regulatory fee in 2006, returned		-164,511	13.29	
5.	TOTAL REVENUES, upon the return made		1,238,290		

Table 8 - Realization of the budget for 2006 - synthetical overview

Total expenditures in 2006 in relation to the adopted budget were realized with 90.27%, including procurement of fixed assets.

Revenues were realized with 102.27% i.e. 1,402,801 BAM and they refer to the regulatory fee from the licensees within Elektroprivreda Republike Srpske in the amount of 1,381,810 BAM and other revenues in the amount of 20,991 BAM. Total amount approved by the Budget for the regulatory fee were completely paid in 2006, increased for 10,110 BAM as it was the regulatory fee for two licenses for the companies that got the license in 2006 as foreseen by Decision on the regulatory fee.

If we separately look at the budget realization in 2006, it is obvious that no budget item was exceeded in relation to the plan.

Paid but not used amount of 164,511 BAM was booked as pre-payment, and the obligation for payment for payers was reduced for that amount in 2007.

This analysis of the budget realization for 2006 was adapted to the form, according to which the budget was adopted.

Regulator, at its 64th internal meeting which was held on 22 November 2006, determined the budget for 2007 and it was adopted in the 5th session of the National Assembly of Republic of Srpska which was held on 14 December 2006 ("Official Gazette of RS", number 128/06).

## 5.2. Audit report

Statute of the Regulatory Commission for electricity of Republic of Srpska provided that annual audit of the financial reports is needed.

While preparing for development of the final statement for 2006, on 30/10/2006, it was announced the public advertisement for selection of the independent auditor, pursuant to the Law on procurement of goods, services and works.

Upon the conducted procedure, on 08/12/2006, it was selected Independent auditor "Vral AUDIT" Banja Luka, that carried out the audit of the financial reports, following the determined dynamics, made its auditor's statement and submitted the report on 07/03/2007 which we present the Balance Sheet, Profit and Loss Statement and Audit opinion from.

## REPORT OF THE INDEPENDENT AUDITOR

We carried out the audit of Balance Sheet and Profit and Loss Statement of the REGULATORY COMMISSION FOR ELECTRICITY OF REPUBLIC OF SRPSKA, TREBINJE for the year ending on 31 December 2006. Members of the Regulatory Commission are responsible for the financial reports. It is our responsibility to based on the audit conducted, express our opinion on the presented financial reports.

We made an audit in accordance with the Law on accounting, Rule book on audit of financial reports, Audit standards of Republic of Srpska and Code of Ethics. These regulations impose that we shall plan and carry out the audit in a way which enables that, to the reasonable extent, we make sure that the financial reports do not contain wrong information of material importance.

Audit includes testing of evidences, based on random sampling, which support objectiveness of information presented in the financial reports. The audit also, includes estimate of the accounting estimates applied which were made by the Management as well as the general presentation of the financial reports. We find that the audit we made offers a solid base for expressing our opinion.

In our opinion, the financial reports enclosed, truly and objectively, per all important issues, present the state of property, capital and liabilities of the REGULATORY COMMISSION FOR ELECTRICITY OF RS, Trebinje on 31 December 2006 and results of the operation for the year which ended that day, pursuant to the Accounting standards and other regulations of Republic of Srpska.

Banja Luka, May 2007

VRAL AUDIT ltd

Blagojevic Zoran, graduate economist  
Authorized auditor

### BALANCE SHEET

For the periods ending on 31 December 2005 and 31 December 2006  
(in BAM)

	Remark	31 December 2005	31 December 2006
<b>REVENUES</b>	3.1, 4		
Assets from the public revenues		3,694	13.083
Revenues from contributions, reimbursements, donations, gifts and assistance		1,054,382	1.217.299
Financial revenues		3,163	7.908
		<b>1,061,239</b>	<b>1.238.290</b>
<b>EXPENDITURES</b>	3.1, 5		
Costs of the material		17,348	25,411
Costs of fuel and energy		16,113	31,431
Depreciation costs		39,226	56,470
Costs of salaries and reimbursements		695,274	891,517
Costs of generation services		154,215	152,373
Intangible costs		69,151	79,250
Costs of taxes		1,216	1,838
		<b>992,543</b>	<b>1,238,290</b>
<b>NET PROFIT</b>		<b>68,696</b>	<b>0,00</b>

## BALANCE SHEET

On 31 December 2005 and 31 December 2006  
(in BAM)

	Remark	31 December 2005	31 December 2006
<b>ASSETS</b>			
Equipment and licenses	3.3, 6	276,046	245,422
Cash and cash equivalents	3.2, 3.4, 7	198,106	253,172
<b>TOTAL ASSETS</b>		<b>474,152</b>	<b>498,594</b>
<b>LIABILITIES</b>			
Non-allocated surplus of revenue - profit	8	276,046	276,046
Liabilities towards suppliers	9	8,138	11,715
The advance payment received based on the regulatory fee	10		164,511
Liabilities for salaries and reimbursements for salaries	11		30,000
Liabilities for taxes, contributions, etc	11		16,322
Paid, but non-used liabilities	11	189,806	
<b>TOTAL LIABILITIES</b>		<b>474,152</b>	<b>498,1594</b>

### 6 Information system of REERS

Infrastructure of the information system of the Regulatory Commission for electricity of Republic of Srpska is based on the local computer network, servers, users' working stations, network printers and appropriate accompanying equipment.

Those employed in Regulator carry out their working duties very efficiently no matter whether they are in the Regulator premises or in some remote locations which is often necessary due to the work requirements.

Program packages which are in use are intended for realization of standard office works but also to meet specific requests related to the treatment of documents and support to services within the computer system (program packages to combine documents, sharing electronic mail, anti-virus server and client-based packages, etc). For all program packages requiring so, it is regularly renewed the users' licenses.

Since transparency is the basic principle that Regular work is based on, end of 2004, it was created website of Regulator ([www.reers.ba](http://www.reers.ba)). Since then, all documents which are relevant for regular and detailed public informing, have been regularly published there.

All employees are, through internal instructions, informed about basic rules of behavior on Internet and Internet surrounding, as well as about the method of keeping and filing electronic documents. It also implies a compulsory

confidential treatment of all in and out information which are considered a part of the information base of Regulator.

## B. ELECTRIC POWER SECTOR AND ELECTRICITY MARKET IN REPUBLIC OF SRPSKA

### 1 Generation of electricity

When the electricity market is open, generation of electricity, i.e. sale of the electricity generated is the activity which is carried out in the market competition and generation prices are absolutely "free", apart from some exceptions which are, for example, related to renewable energy sources and co-generation (combined generation of heat and electricity) and in a case of emergency. In the process of the market opening, generation prices are regulated at the very beginning, usually by the regulatory authority. In Republic of Srpska, pursuant to Article 115 of the Law, Regulatory Commission for electricity determines electricity price at the outlet of each plant. Generation of electricity for tariff customers is a public service obligation, while generation of electricity for eligible customers in Republic of Srpska, in BiH and for export, is generation for the market.

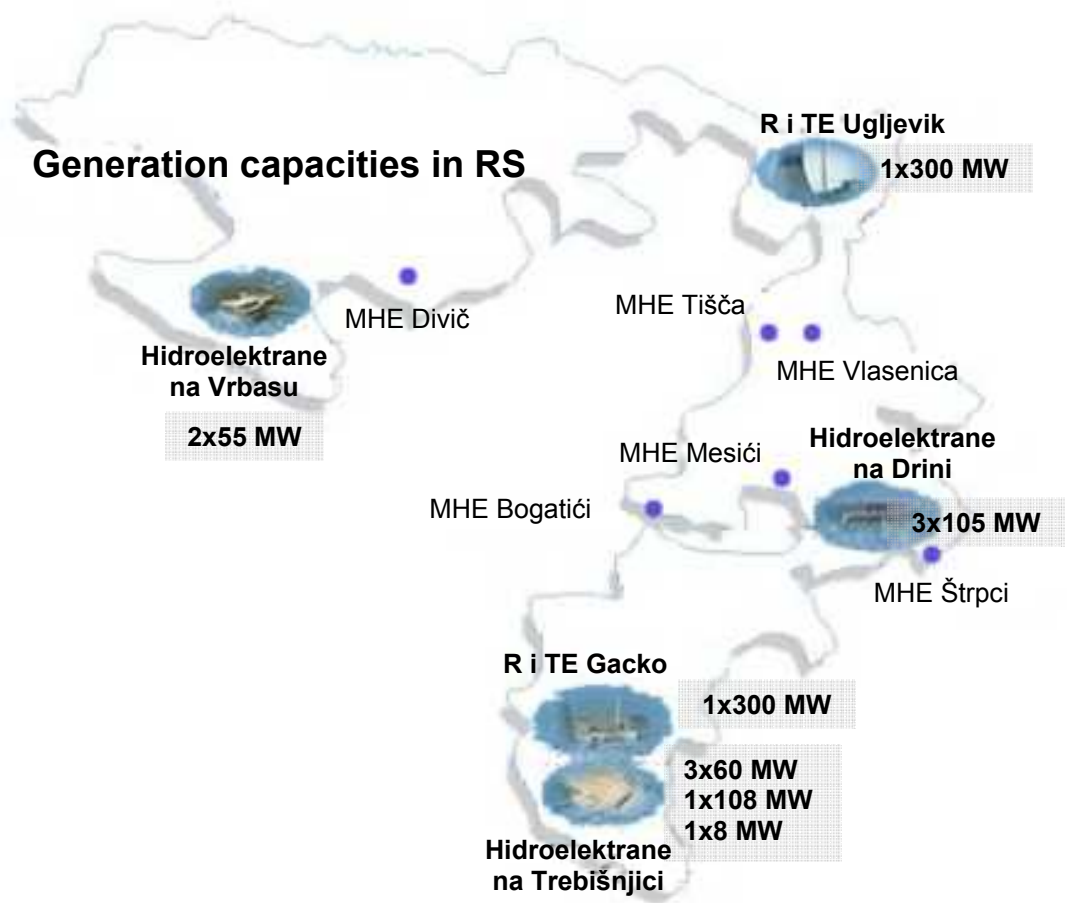


Figure number 5 - Generation capacities in Republic of Srpska

Generation of electricity in Republic of Srpska is carried out in five generation companies and four small hydro electric power plants within two distribution companies, all of them within Mixed Holding of "Elektroprivreda Republike Srpske", as well as in small hydro electric power plants "SHPP Divic" and SHPP "Strpci" which is in private property. Generation realized in 2006 amounted to 5413.65 GWh. Figure number 5 illustrates generation capacities in RS, while Figure number 6 illustrates electricity generated in 2006.

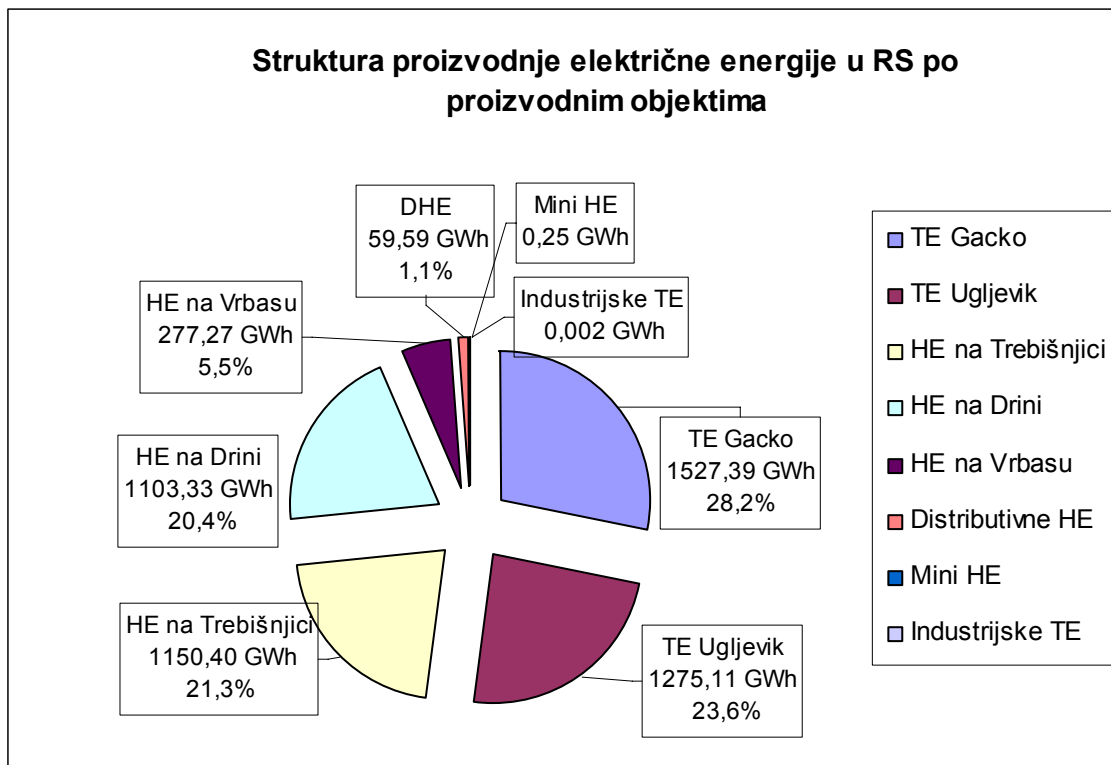


Figure 6 - Structure of the electricity generated in 2006

### 1.1. Protection of environment

In the monitoring process of the licensee for generation of electricity, one of the monitoring subjects was to check if the licensees met requirements related to protection of environment.

The initial licenses imposed liabilities for the licensees regarding protection of environment, which arose from legal regulations in charge of protection of environment and competence of Regulator. When it is about the laws and secondary legislation, the most important are as follows:

- Law on protection of environment ("Official Gazette of Republic of Srpska", number 53/02)
- Law on protection of air ("Official Gazette of Republic of Srpska", number 53/02)
- Law on waters ("Official Gazette of Republic of Srpska", number 50/06),
- Law on waters ("Official Gazette of Republic of Srpska", number 10/98),
- Law on the waste management ("Official Gazette of Republic of Srpska", number 53/02) and others.

The most important obligation faced by licensees is the obligation to obtain the environmental license till the end of 2007. Obtaining environmental license is, legally, conditioned by obtaining a range of other documents and licenses which



shall comprise obligations of each licensee. The environmental license, for each company, should contain:

- marginal value of emissions for polluting matters which shall be based on the best available technologies;
- conditions for protection of land, air, water, vegetable and animal world;
- measures for the management of waste produced by the plant;
- requests to follow emissions accompanied by determination of methodologies and frequency of measuring;
- terms and conditions to bring the cross-border pollution to the minimum;
- measures for the living conditions in emergencies

In 2006, the teams for monitoring of REERS carried out monitoring activities of seven licensees for generation of electricity.

It was confirmed that none licensee for generation in hydro electric power plants had environmental license for their facilities. Some structures of HPP on Trebisnjica and HPP on Vrbas did not have valid water management documents, i.e. activities for their obtaining were not initiated, which was defined by the Law on waters. Structures of the HPP on Drina had valid water management documents.

Licensee of the "Hydroelectric power plant on Vrbas", joint-stock company Mrkonjic Grad had the system introduced and certified system of control of environmental protection following the standard ISO 14001, i.e. it had established internal plans and programs of control of the environment protection. During the monitoring process, it was confirmed that the licensee mostly complied with all defined measures of protection and improvement of environment.

Licensees of JP "Hidroelektrane na Trebisnjici", joint-stock company Trebinje and "Hidroelektrane na Drini", joint-stock company Visegrad do not have the system of control of environment introduced following the standard ISO 14001. Also, these licensees neither have the plans and programs for protection made nor the programs for protection and improvement of environment. The exception is "Study of the impact of the HPP Visegrad reservoir at the surrounding area in the region of Visegrad and Gorazde". However, lack of the mentioned documents does not mean that they do not undertake important measures in the mentioned companies in order to protect environment.

The problem of the licensee of "Hidroelektrane na Drini", joint-stock company Visegrad is also obvious due to, so called, floating waste and arrangement of the surrounding area in Visegrad, because in order to solve these problems, it is necessary to establish the cooperation with hydro electric power plants on the Drina and Lim rivers, in Republic of Srpska.

Briefly, it may be noticed that the level of protection of environment with these generators of electricity is satisfactory, with the remark that the mentioned companies are obliged to, within the legal deadlines, obtain all necessary licenses, and accordingly act pursuant to the license requirements.

As it was already stated, Regulator has issued licenses for generation of electricity in five small hydroelectric power plants. Failures stated for the hydro electric power plants can be completely applied for the small hydro electric power plants. However, apart from the lack of the necessary licenses, it may be confirmed that the impact of these structures on environment is satisfactory.

According to the conducted monitoring process, it is important to emphasize the problem of water supply of the resided places near the SHPP Vlasenica, because of the position of the place of water intake for supply of population with water and its possible pollution.

Regulatory Commission for electricity of Republic of Srpska issued two licenses for generation of electricity in thermal power plants, which are as follows: JP "Rudnik i termoelektrana Gacko" joint-stock company Gacko and "Rudnik u termoelektrana Ugljevik", joint-stock company Ugljevik.

It is used lignite in both thermal power plants as the fuel of low calorific value. Lignite is obtained from the opencasts of coal, within the mentioned companies.

Generation of electricity from coal causes numerous impacts on environment, but during the monitoring process, the attention was paid to most evident problems which occur when these licensees operate; it is about: smoking gas emissions, waste water which appear in the technological process, placing of ash then occupying great land surfaces by the opencasts of coal.

During the monitoring process in 2006, it was determined that no licensee had ecological license, nor the activities related to its obtaining were initiated.

Smoking gas emissions, first of all, it is about solid matters, oxides of nitrogen and sulfur are defined by Law in Republic of Srpska (Law on protection of environment and Law on protection of air) and secondary legislation, but also by liabilities arising from the Treaty on establishment of the Energy Community of South East Europe. According to legal documents of Republic of Srpska, all structures should harmonize their emissions with limit values prescribed by the Rule on limit values of the emissions in the air from the plant for combustion ("Official Gazette of Republic of Srpska", number 39/05), pursuant to the Treaty on establishment of the Energy Community of South East Europe, BiH is obliged to apply provisions of the Directive 2001/80/EC, until 2017, about the limit values of the emissions in the air.

In order to follow emissions of the smoking gases, licensees were obliged to provide for continual measuring of the polluting matters in the air. It was confirmed that TPP Gacko did not have the equipment for continual measuring inserted, while the equipment which existed in TPP Ugljevik was not in function. There are metering data for TPP Ugljevik until the end of August 2005. In October, it was carried out, so called, the first measuring of the polluting matters. The results of the first measuring for TPP Gacko, as well as data obtained by continual measuring in TPP Ugljevik in the mentioned period, enabled, only partly, creation of a picture on emissions in the air from these facilities and to compare those values with the limit values of emissions. Values of emissions obtained by the

mentioned measuring were given in figures 8, 9 and 10 but, due to unreliable data, they may only serve as illustration ones and not as accurate values.

According to the above mentioned, it may be concluded as follows:

1. RiTE Gacko:

- Emissions of solid matters exceed the limit values of emission in several tenths;
- Emissions of oxide nitrogen are currently higher than the limit values of emissions,
- Emissions of oxide sulfur are twice to three time higher than the limit values of emissions,

2. RiTE Ugljevik:

- Emissions of oxide sulfur exceed the limit values of emissions in several tenths;
- Emissions of oxide nitrogen are within allowed limits,
- Emissions of the solid matters are several time higher than the limit values of emissions

Figure 7 - Emissions of nitrogen oxides and solid matters

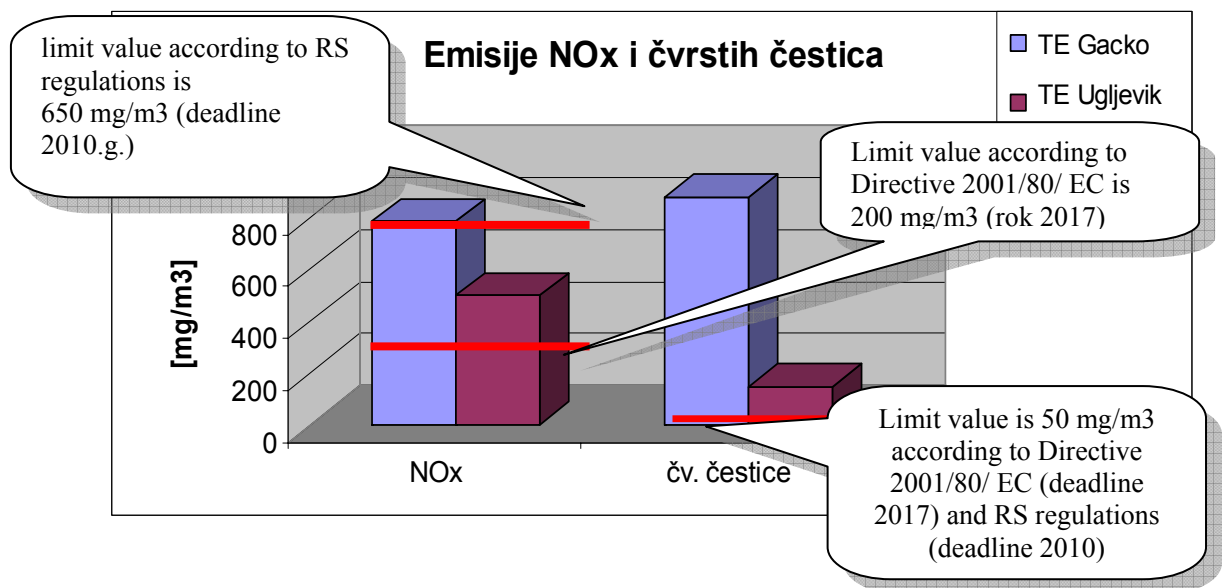


Figure number 8 - Emissions of the sulfur oxide in TPP Gacko

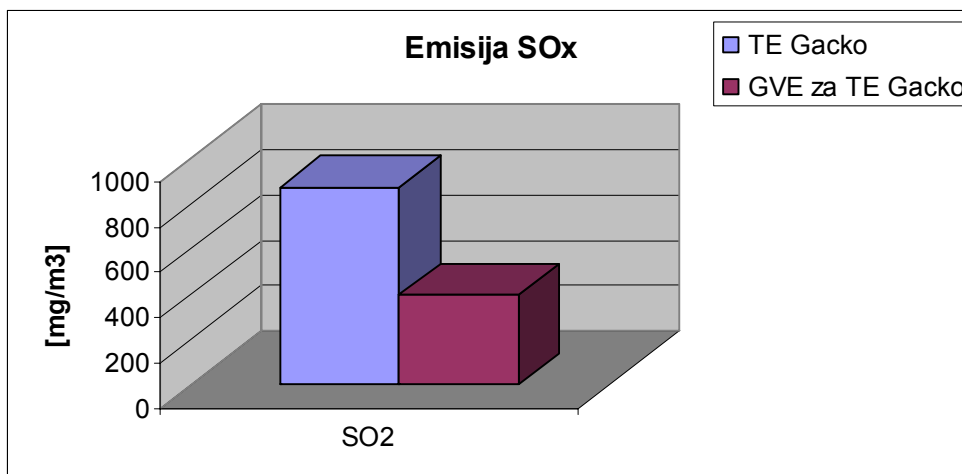
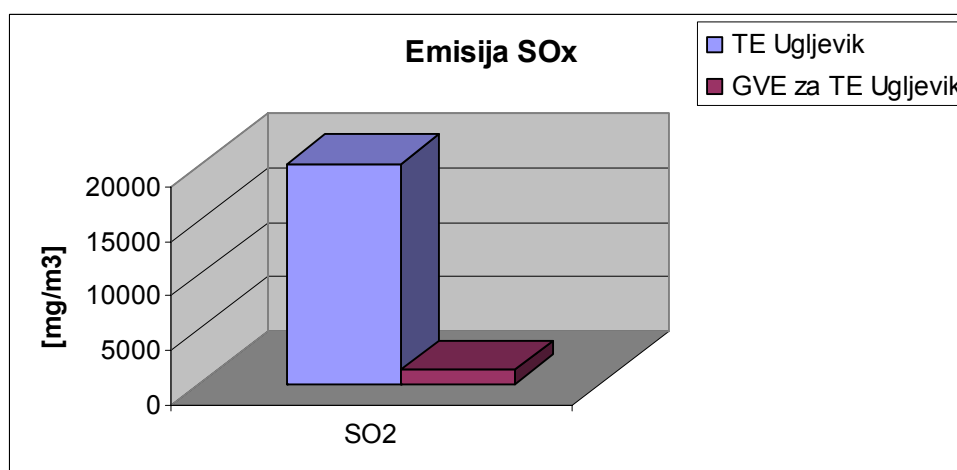


Figure number 9 - Emission of the sulfur oxide in TPP Ugljevik



In order to get an illustrative picture on situation regarding emissions in the air, there are presented the values of specific emissions of the carbon dioxide from thermal power plants, as well as specific consumption of coal.

While calculating specific emissions of carbon dioxide, there were data of licensees used as well as the methodology prescribed "2006 IPCC Guidelines for National Greenhouse Gas Inventories - Volume 2: Energy". It was also taken into account only the consumption of basic energy item, i.e. coal and not other energy items, although their impact is negligible (less than 1%).

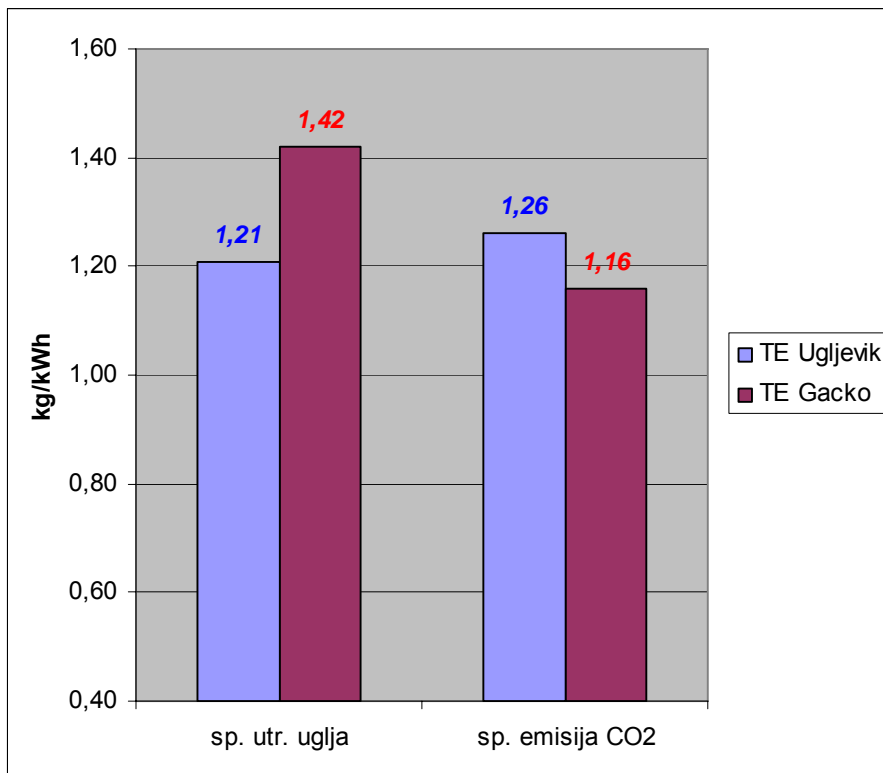


Figure 10 - Values of specific consumption of coal and emissions CO<sub>2</sub>

During the monitoring process, it was confirmed that there is no treatment of the waste water in RiTE Gacko but they are directly flown in the land and water courses, which is a very big problem. There is a system for the waste water treatment in RiTE Ugljevik, but, due to the fact that it was out-dated and because of partly imperfectness of equipment, the results of clearing are not satisfactory.

It was already mentioned that there are overcasts of coal within the system of these licensees, which occupy great land surfaces. It was also confirmed, during the monitoring process, that there are re-cultivation projects made for both mines and that activities related to re-cultivation started at those parts of the overcast where the exploitation is over. It is expected that the re-cultivation process would be intensified in the next years.

Placing of ash, which occurs in the process of the coal combustion, in both TPPs, is carried out according to the appropriate projects although there are certain deviations, which removal is ongoing.

It is important to mention that certain amounts of ash from the TPP Ugljevik are bought by the cement factory from Lukavac and accordingly double benefit is achieved.

Upon the conducted monitoring process, Regulatory Commission for electricity of Republic of Srpska ordered all licensees of initial license for generation of electricity to implement the appropriate measures which are as follows<sup>2</sup>:

1. For the hydro power plants:

- start developing Studies, plans and other documents stipulated by the Law on protection of environment ("Official Gazette of Republic of Srpska" number 53/02) and other regulations which regulate the environment;
- initiate the procedure for obtaining environmental license for their structures pursuant to Article 68 and 74 of the Law on protection of environment, and appropriate secondary legislation,
- initiate the procedure to obtain, i.e. check water management documents in a way and within terms defined by the law and secondary legislation,
- develop the plan and program for introduction and certification of the quality system per ISO standards (integral system of quality which is meant by the standards ISO 9000, ISO 14000, ISO 17025) and business system

2. For thermal power plants:

- develop or update Studies, plans and other documents stipulated by the Law on protection of environment ("Official Gazette of Republic of Srpska" number 53/02) and other regulations which regulate the issues of environment, harmonize appropriate deadlines and start with their realization;
- initiate the procedure to obtain the ecological license for their structures pursuant to the Article 68 and 74 of the Law on protection of environment and appropriate secondary legislation,
- submit to REERS results on the First measuring of the polluting matters in air of JP "RiTE Gacko", joint-stock company Gacko,
- insert equipment for measuring of emission for the exhaust pipes, and organize and measure all emissions and imissions, i.e. organize monitoring of air, land, surface and underground water, pursuant to the legal regulations within the sphere of protection of environment and initial license requirements
- submit to REERS the plan and program of measures related to protection of environment (waste water, emissions in the air, re-cultivation measures, etc), which the licensee plans to undertake in order to meet requirements prescribed by the Law on protection of environment and other regulations which regulate this branch,
- develop the plan and program of introduction and certification of the quality system per ISO standards (integral system of quality which comprises the standards: ISO 9000, ISO 14000, ISO 17025) into the business system;

As it can be noticed from this overview of the most important measures which are related to protection of environment, the most important liability for all

---

<sup>2</sup> In this overview, there is summarized overview of measures related to protection of environment. All Decisions can be found at website of REERS, [www.reers.ba](http://www.reers.ba)

licensees of initial license is to obtain the ecological license and implement all measures to obtain it until 2008.

The ecological license shall prescribe all segments for both, thermal power plants and hydro electric power plants, related to protection of environment. It is also important to emphasize, once again, that the law anticipated that the existing facilities, regarding protection of environment, should harmonize their activities with provisions of the law and regulations made, based on the law.

## 2 Transmission of electricity

Transmission of electricity is a monopolistic activity and that is why it should be regulated in order to provide the network usage for all beneficiaries in an equal and transparent way at regulated prices. It is of particular importance that the transmission activity is separated from other electric power activities in separate companies (managerial-functional and legal unbundling) in order to provide for impartiality in the service offering. Unbundling of the transmission activity from the "market" activities in Republic of Srpska was provided by organizing two special companies at BiH level, as follows: "Elektroprenos Bosne i Hercegovine" Banja Luka (Transmission company) and "Nezavisni operator sistema Bosne i Hercegovine" Sarajevo (Independent System Operator of Bosnia and Herzegovina). SERC is in charge of regulation of the activity.

In picture number 4, there is a map of the transmission network of Bosnia and Herzegovina. The network suffered considerable damages during the war and it was divided into two parts, one of which belonged to the first, I synchronous UCTE zone (BiH Federation and a small part of Republic of Srpska), and another to the second II synchronous UCTE zone (a bigger part of Republic of Srpska), but it was completely rehabilitated and joined again. Namely, since 10 October 2004, when the reconnection of two synchronous zones was made (I synchronous zone which covered the west and central Europe and II which covered south-east Europe), the power network of Republic of Srpska became an integral interconnecting part of a big European UCTE (UCTE - Union for Coordination of transmission of electricity) network.

Full inclusion of the electric power network of BiH and ISO in UCTE, in a technical and institutional sense, resulted in some considerable positive effects, contributing to the increased reliability of operation, stability of frequency, improvement of the voltage circumstances and quality of delivery of electricity and increase of the trade volume of electricity.

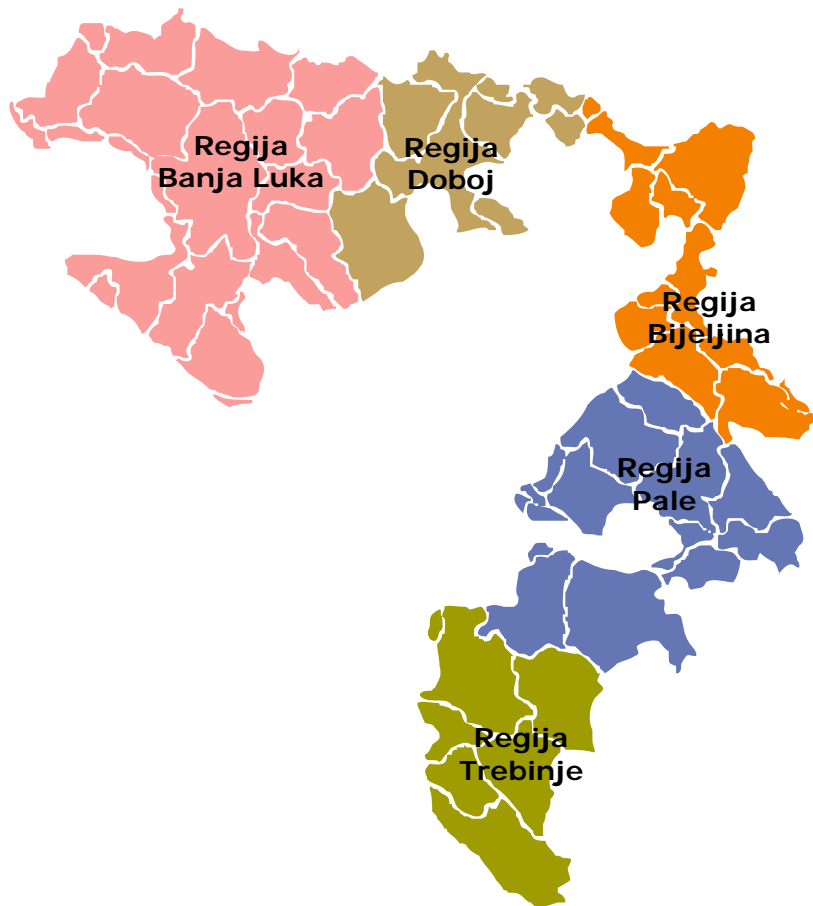




functional-managerial unbundling of distribution system operators, not later than 1 July 2007.

Distribution activity in RS is carried out in five distribution companies - distribution system operators (distributors) (picture number 12) within the mixed holding "Elektroprivreda RS" with franchising rules of delivery of electricity at certain geographic areas and is regulated by the Regulatory Commission of Electricity of RS (REERS). REERS determined tariffs for the distribution network use, which cover the costs of distribution network and all transferred costs for the services at the transmission network, and which are applied for end users connected to the distribution network, eligible and non-eligible. This is a very important precondition for the electricity market opening. Another important precondition for the opening of fair market of electricity is provision of "independency" of distribution system operator - distributor. Distributors in Republic of Srpska are within the mixed holding of "Elektroprivreda Republike Srpske", i.e. within vertically integrated company which is the licensee for trade and supply of electricity. Having in mind that distribution companies are separate legal structures, the condition of legal unbundling has been met. Functional-managerial unbundling is provided in a way that the parent company is "allowed" control regarding long-term planning, direction of capital, etc while it is "not allowed" the impact on everyday business activities of the distribution system operator - distributor.

Distribution companies also carry out the activity of supply of electricity for tariff customers. The activities of distribution and supply in Republic of Srpska are carried out in the system of the public service obligation, but the companies are determined the obligation, by requirements of the initial licenses issued, of the accounting unbundling of these activities, in order to get a clear identification of the network usage costs, i.e. determination of tariffs for the distribution network use. In order to carry out these obligations, distribution companies started in 2006 to adapt their operational-information systems to the new organization which is imposed by the de-regulation process.



Picture 12 - Distribution regions in Republic of Srpska

### 3.2. Supply of electricity

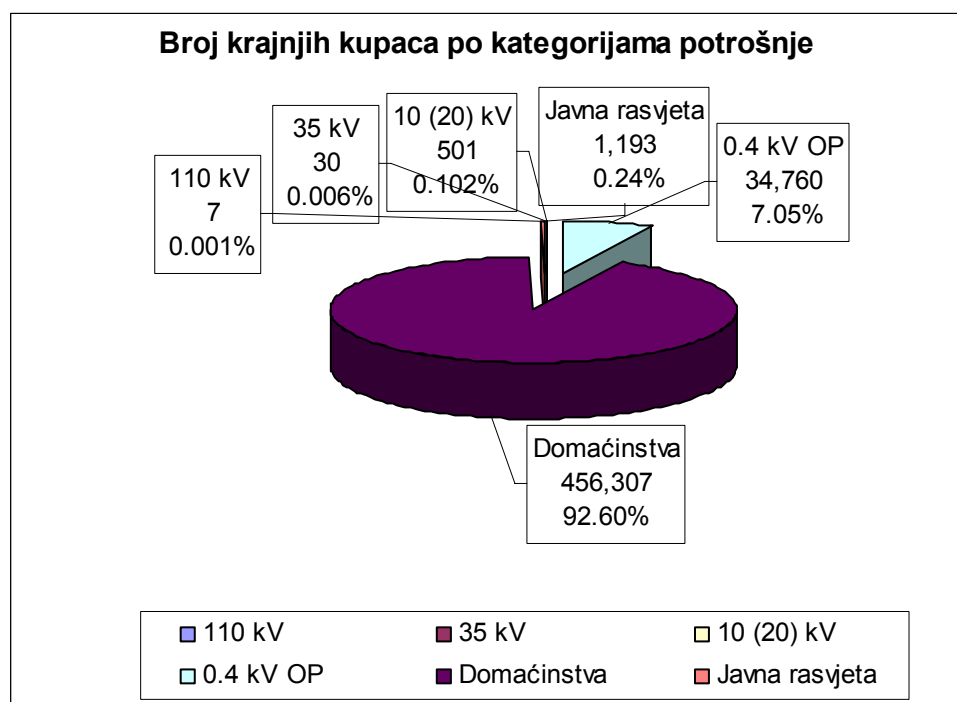
Supply of electricity is in a principle a commercial activity which is carried out under circumstance of free competition when it is about developed markets. The fact that the market is opened is expressed by freedom of a customer to choose its supplier of electricity.

According to that, customers are divided in eligible (free choice of supplier) and non-eligible (tariff) customers. Rule on getting a status of eligible customer anticipated the gradual market opening and it is on 1 January 2008 that all categories except households shall be entitled to choose their supplier, and in 2015, the households as well.

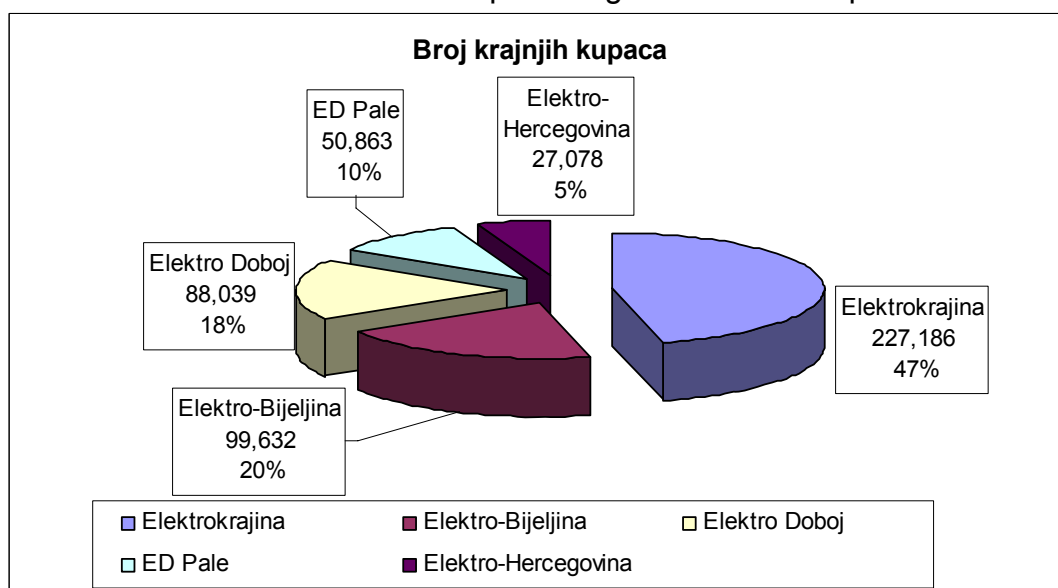
Supply of non-eligible (tariff) customers in RS is a regulated activity, so that Regulatory Commission for electricity of RS determines tariffs for the sale of electricity to non-eligible (tariff) customers which they are supplied at, by the supply licensee. Licensee for supply of electricity at certain tariff area is, in the beginning, regional distribution company, whereby since it is about the same legal subject, it is obliged to carry out at least accounting unbundling of the supply activity from "classical" distribution activity. Number of end users in Republic of Srpska in 2006, per categories of consumption and per distribution areas, indicates the following overview:

Category of consumption	Elektrokrajina	Elektro-Bijeljina	Elektro Doboј	ED Pale	Elektro-Hercegovina	TOTAL
110 kV	2	1	4	0	0	7
35 kV	4	4	14	7	1	30
10 (20) kV	213	119	85	52	32	501
0.4 kV OP	15,155	7,178	6,157	4,081	2,189	34,760
Households	211,720	91,843	81,506	46,539	24,699	456,307
Public lightning	92	487	273	184	157	1,193
<b>Total</b>	<b>227,186</b>	<b>99,632</b>	<b>88,039</b>	<b>50,863</b>	<b>27,078</b>	<b>492,798</b>

Table 9 - Number of end users in Republic of Srpska on 31 December 2006

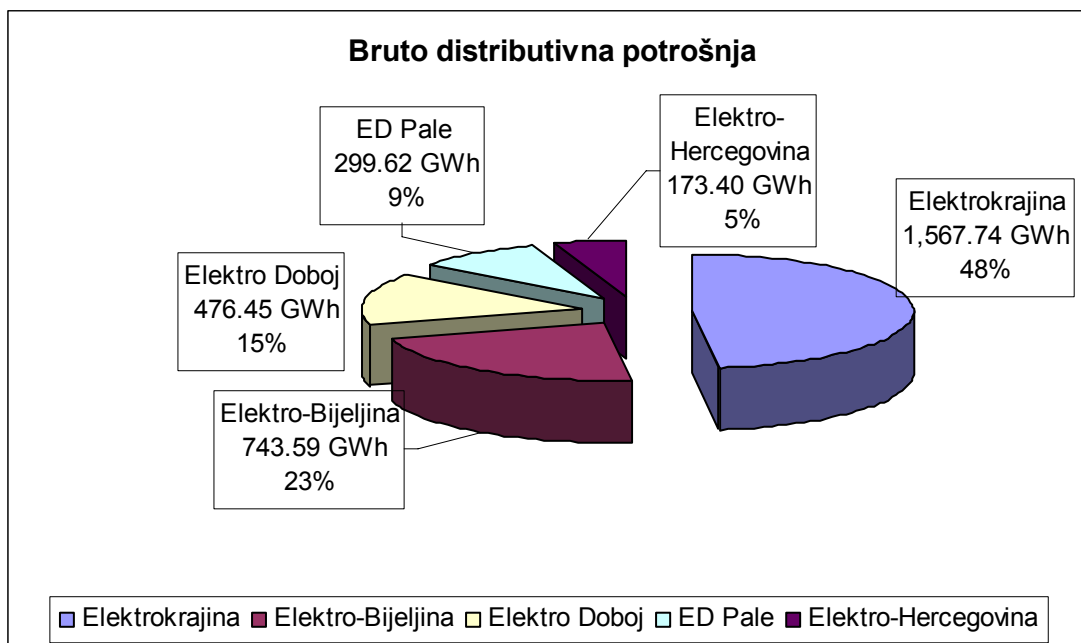


Picture 13 - Number of end users per categories of consumption in 2006

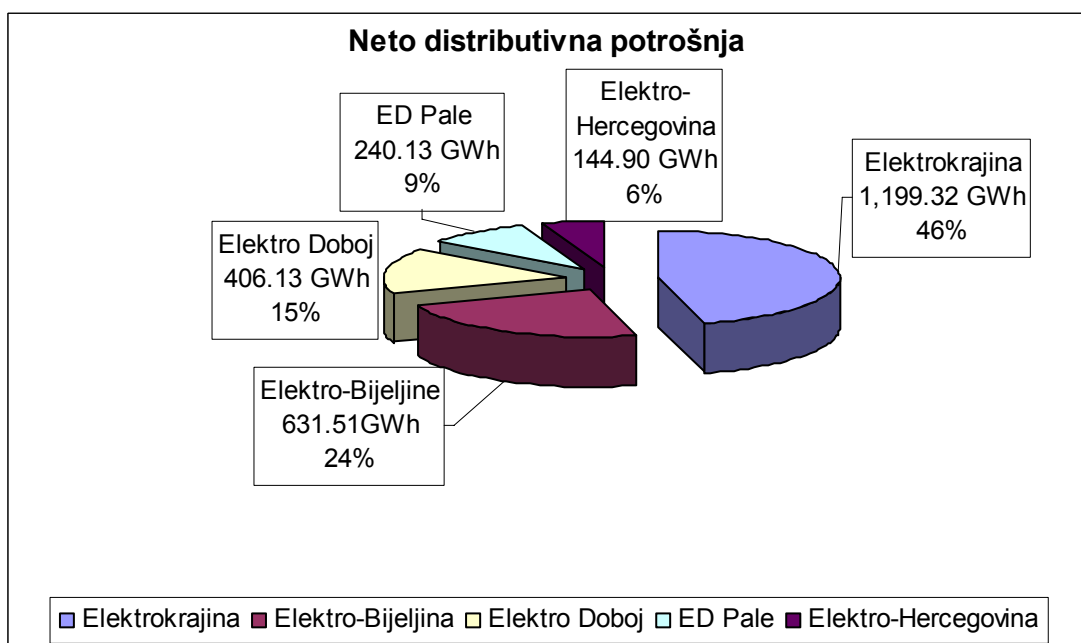


Picture 14 - Number of end users in Republic of Srpska on 31 December 2006

Picture 15 gives gross distribution consumption per distribution companies (regions), while Picture 16 gives the structure of total consumption of electricity in Republic of Srpska per categories of consumption (voltage levels and groups of customers).

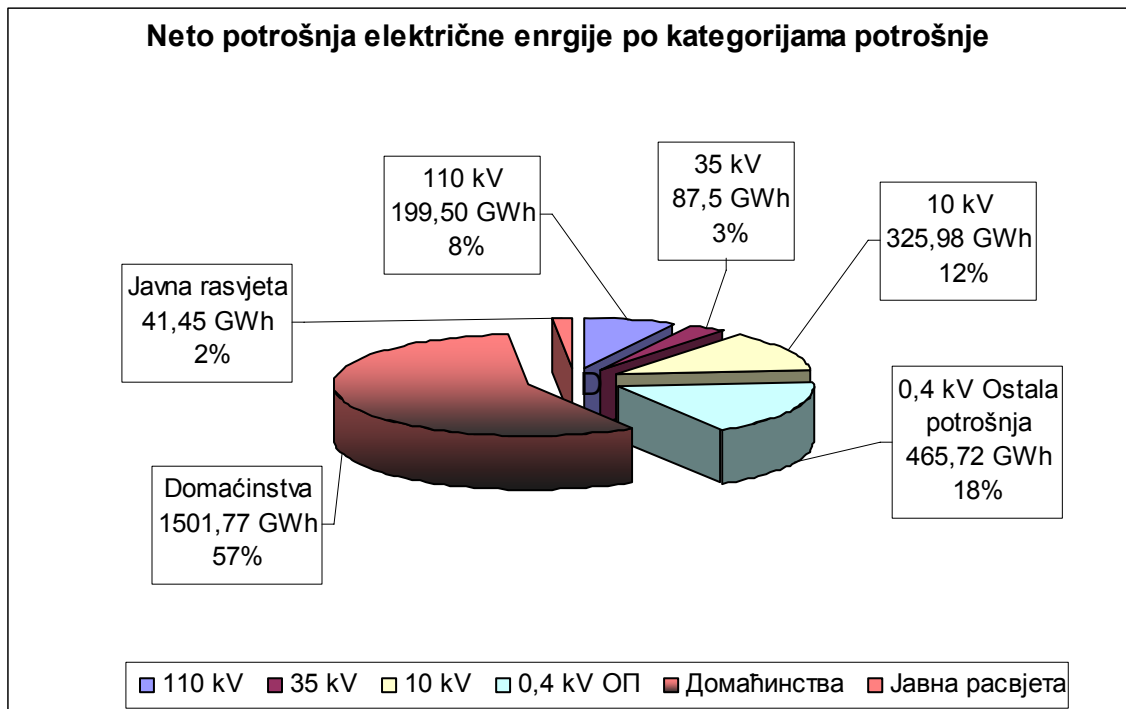


Picture 15 - Gross distribution consumption in 2006



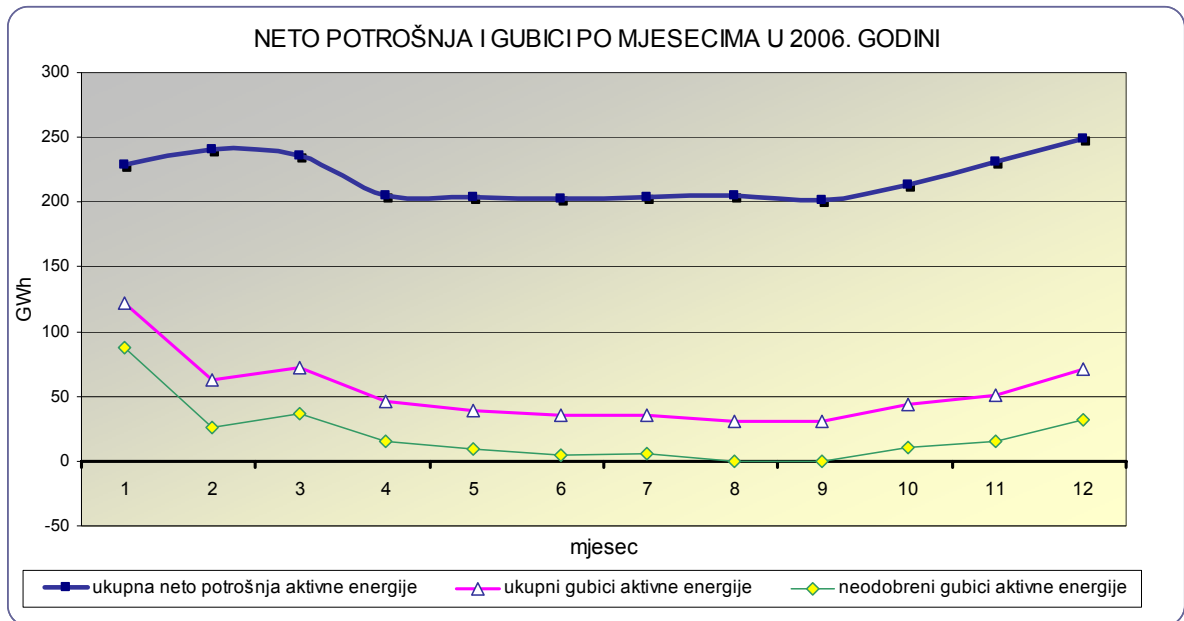
Picture 16 - Net distribution consumption in 2006

In the next picture, it can be noticed that density of households as the category of consumption of electricity in net consumption in Republic of Srpska is about 60%, as well as the structure of consumption of industrial and commercial customers.



Picture 17 - Structure of consumption per categories of consumption in Republic of Srpska in 2006

A big problem, faced by the licensees for distribution is a level of losses of electricity in the distribution network. REERS policy is to motivate the licensees to reduce these losses directly, committing them to make the plans of measures and activities for reduction of distribution losses and to submit reports on their implementation and indirectly, determining the approved amount of costs as losses of electricity in the tariff proceeding.



Picture 18 - Realized net consumption and losses of electricity in Republic of Srpska in 2006

### 3.3. Quality of service

Since the regulation of the service quality is a competence of REERS prescribed by the law, REERS in General Conditions for supply and delivery of electricity prescribed the obligation and form of reporting about quality of supply of electricity, while the requirements of the initial licenses issued for distribution of electricity committed the licensees to ensure reliable and high-quality supply of end users with electricity, undertake all necessary measures in order to improve the indicators of reliability and quality, keep records and develop data base on indicators of quality and continuity of electricity delivered and quality of the services offered, develop regular annual reports on these indicators that should be available to the public on their own webpage.

Those mentioned prescribed obligations have a "general" nature, while efficient regulation of the service quality is a very complex task which is meant by previously establishment of the quality standard based on the database on indicators which define quality of electricity delivered. It is of special importance to collect, on a continued basis, reliable data on delivery continuity and about indicators of the commercial service in the representing time which precedes determination of the quality standard and after that, introduction of incentives i.e. penalties while determining tariffs and introducing reimbursement of payment directly to customers based on the established standards.

Data presented here are the first collected data which were recorded by the party offering the service and being like that they are not complete and reliable, but it is very important that the rules (and obligations) on their recording, publishing and submitting to Regulator are established and they have been, from the very beginning, to the great extent, respected.

Three licensees submitted the report in a prescribed form, and two ones in a simplified.

Keeping records of indicators of quality related to the electricity supply is carried out through the parameters:

- Indicators of the supply continuity (table 10 and 11),
- Indicators of the commercial quality (table 12a and 12b)

Quality of the voltage supply is definitely one of the important parameters of the supply quality, and its checking is made with appropriate measuring in some points of the distribution network.

Indicator of the supply continuity	Elektrokrajina	Elektro-Bijeljina	Elektro Dobož
	IV quarter	IV quarter	IV quarter
DTP	719.62	663.00	212.50
BKP	3.20	2.33	0.10
BDP	8.72	6.63	1.63

Table 10 - Indicators of the supply continuity

Explanation of the abbreviations:

- Length of the supply termination per end user during the year (DTP) is expressed in minutes per end user, for all tables (indicators of the supply continuity),
- Number of short supply terminations of end user during the year (BKP),
- Number of long supply terminations of end user during the year (BDP),

Table 11 - Indicators of the supply continuity

Indicator of the supply quality		Elektrokrajina	Elektro-Bijeljina	Elektro Dobož	
		IV quarter	IV quarter	IV quarter	
Length of the non-planned supply terminations per end user during the year (min/customer)	Cause of the supply terminations	Force Majeure	144.11	99.00	96.90
		Damages by the third parties	2.45	54.00	1.39
		Responsibility of the licensee	104.13	344.00	0.00
Number of the non-planned supply terminations per end user during the year	Cause of the supply terminations	Force Majeure	3.25	0.83	1.12
		Damages by the third parties	0.08	0.57	0.10
		Responsibility of the licensee	1.40	5.65	0.00

Table 12a - Indicators of the commercial quality

No	Quality indicators		"Elektro-Bijeljina"	"Elektro-Doboj"	Unit measures
			IV	IV	
1	Number of visits to the call center	Total	7095	2794	
		On 100 end users	7.3	3.17	
2	Average waiting time in call center		16	3	minute
3	Number of calls	Total	5133	1700	
		On 100 end users	5.3	1.93	
4	Number of complaints	Total	485	1202	
		On 100 end users	0.5	1.37	
5	Average time for answer to the complaint of end user		7	3	day
6	Average time for answer to the enquiry of the end user		1	1	day
7	Average time of meters' reading of end users		2.6	3	
8	Average time of meters' self-reading per end user		0.2	723	
9	Percentage of the estimated accounts		0.01	0.01	%
10	Number of the revised accounts	Total	2204	4361	
		On 100 end users	2.28	0.5	
11	Interventions of the Department for repairs	Total interventions	798	544	
		Average time for reactions	2.8	3.06	day
12	Electric power consent for end users at low voltage	Number of the electric power consents issued	356	482	
		Average time for issuance	5	10	day
13	Connection of new end users to low voltage network	Number of the connected end users	637	446	
		Average time from the conclusion of contract on connection to the connection	8	3	day
14	The period from the contract conclusion to connection to the network	Number of the contract of supply concluded	10	635	
		Average time from the contract conclusion to the connection	2	3	day
15	Disconnection of end users	Number of disconnections	529	849	
		Average time of re-connection	1.25	1	day
16	Number of non-justified disconnections on 1000 end users		0.01	0.011	
17	Average time of the re-connection after non-justified disconnection		0.46	0.04	day

Table 12b - Indicators of the commercial quality



No	Quality indicators		"Elektro-Bijeljina"	"Elektro-Doboj"	Unit measures
			IV	IV	
1	Intervention on the damage of the end user voltage fuse	Number of interventions	524	185	
		Average time of intervention	3.6	2	hour
2	Rehabilitation of the supply after outage	Number of outages	1253	511	
		Average time for rehabilitation of the supply	1.53	1/31	hour/minute
3	Connection process	Number of the constructed LV connections	767	332	
		Average time for creation of the connection	6	3	day
		Number of the constructed MV connections		0	
		Average time for creation of the connection		0	
4	Estimate of costs of the material and services	Total number	48	374	
		Average time for estimate	6	3	day
5	Notification of the supply termination	Total number of notices	118	222	
		Average time for notification	2	2.5	days in advance
6	Settlement of complaints on the quality of voltage	Number of complaints	34	24	
		Average time for settlement of complaints	5	10	day
7	Response to the metering problems	Number of complaints	199	318	
		Average time for the problems solving	5	2	day
8	Notification about the method of payment, accompanying the bill		yes	yes	yes/no
9	Response time on the damage of the prepaid meter	Number of notifications of damages	-	0	
		Average time of repair	-	0	hour
10	Repair of voltage circumstances	Number of repairs	24	25	
		Average time of repair	2	4	month
11	Visit to the end user which requires dislocation of the meter	Number of applications	18	22	
		Average time of response	4	3	day
12	Meter replaced, when requested by the customer		yes (100)	yes (100)	yes/no (%)
13	Disconnection at the request of the end user	Number of applications	256	108	
		Average time of disconnection	2	1	day

14	Re-connection, after disconnection because of non-payment	Number of disconnection	292	577	
		Average time of connection	1	1/0	day
15	Estimate of costs for complex operations	Total number	8	0	
		Average time of estimate	2	0	day
16	Accuracy of the bill, estimated	Number of bills with the estimate made	-	1503	
		Percentage of the bill with the accuracy, above 5%	-	90	%

Distribution Company Elektrokrajina, partly Elektrodistribucija Pale and Elektrohercegovina did not submit their reports on the supply quality in a standard form so that is why we do not publish them.

#### 4. Dynamics of the market opening

The extent, to which the electricity market is opened, is defined as a share of consumption of customers that are free to choose the supplier, i.e. consumption of eligible customers in total consumption of all customers. The threshold for getting a status of eligible customer in some countries was defined in different ways: annual consumption, connecting capacity or voltage level of the connection.

It was stipulated by the Law on electricity (Article 49) that all customers of electricity in Republic of Srpska whose total consumption is more than 10 GWh may get a status of eligible customer. Terms and criteria for getting a status of eligible customer was prescribed by the Regulatory Commission for electricity of Republic of Srpska by enacting the Rule on getting a status of eligible customer ("Official Gazette of RS", number 88/06). In that way, it was formally enabled the opening of the retail electricity market where the participants are suppliers and end users that, pursuant to this Rule, got the status of eligible customer. The status of eligible customer enables customers to choose the supplier by themselves.

Provisions of the Rule defined the dynamics of the market opening. As of 1 January 2008, each customer, apart from customers from the category of household, may conclude the Contract with Supplier of their own choice. The right to choose for customers from the category of household was planned, at latest until 1 January 2015, while the exact date will be additionally determined, whereby it cannot be later than the stated date.

The customers are entitled to the status of eligible customers as of 1 January 2008 without submission of application to REERS.

Activities related to the market opening are necessary to be harmonized at the level of Bosnia and Herzegovina, through direct cooperation of regulatory commissions, even though these problems were not, in an absolutely same way, regulated in both entity laws on electricity and Law on transmission, ISO and SERC. The market opening is also meant by making the plans of opening, necessary rules and preparation of institutions in a way that the market may

function in a single economic space of Bosnia and Herzegovina and may be integrated in the regional market of South East Europe. The signed Treaty on Energy Community of South East Europe became a compulsory document for parties to it, which means that their energy legislation should be mutually harmonized, both regarding establishment of the necessary market structures and compliance with deadlines for meeting those conditions required for functioning of fair electricity market in the region.

## 5 Safety of supply

### 5.1. Introduction

Safety of supply is the issue which is becoming more and more important when the market is opened. It is also meant by determination of the responsibility institution for safe supply and mechanisms for removal of possible causes of uncertainty in the network or unavailability of generation or procurement of electricity. In order to reach satisfactory level of safe supply, it is necessary to provide for sufficient generation capacities, appropriate transmission and distribution system and effective control. This issue may often be more effectively solved at the regional level, although, so far until common solution is found, even the members-countries of EU determine their own procedures and make necessary measures in order to ensure safe supply of electricity.

### 5.2. Safety of supply - generation and consumption of electricity

One of indicators of the safety of supply is the level and availability of generation capacities analyzed in relation to the level of consumption, whereby the level of consumption is considered as the dynamic item depending on the demographic and economic changes, i.e. it is the appropriateness of the system regarding generation possibilities.

Benchmarking overview of Republic of Srpska and surrounding are indicated by the following graphs:

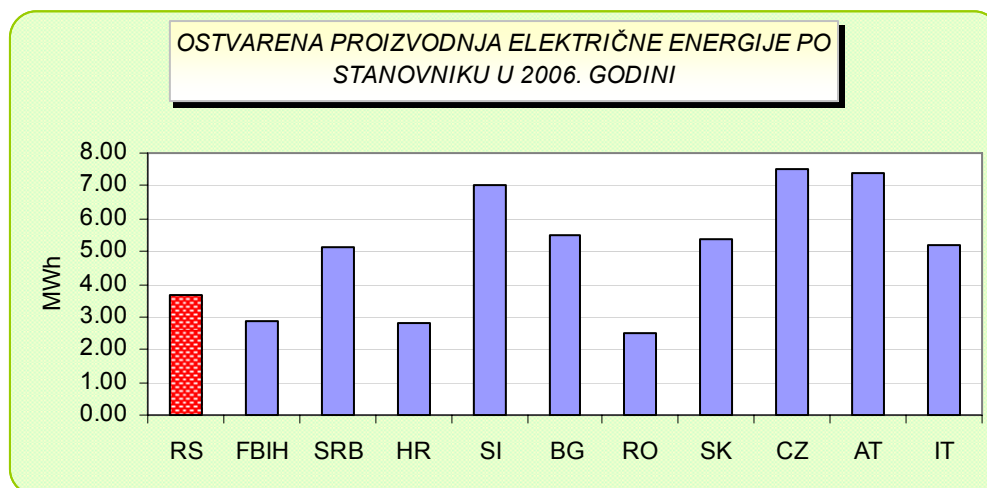
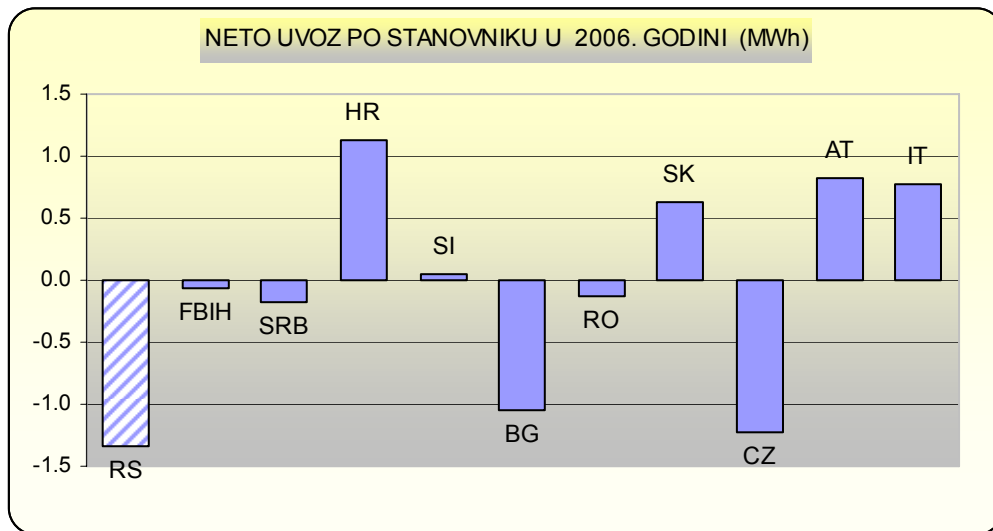


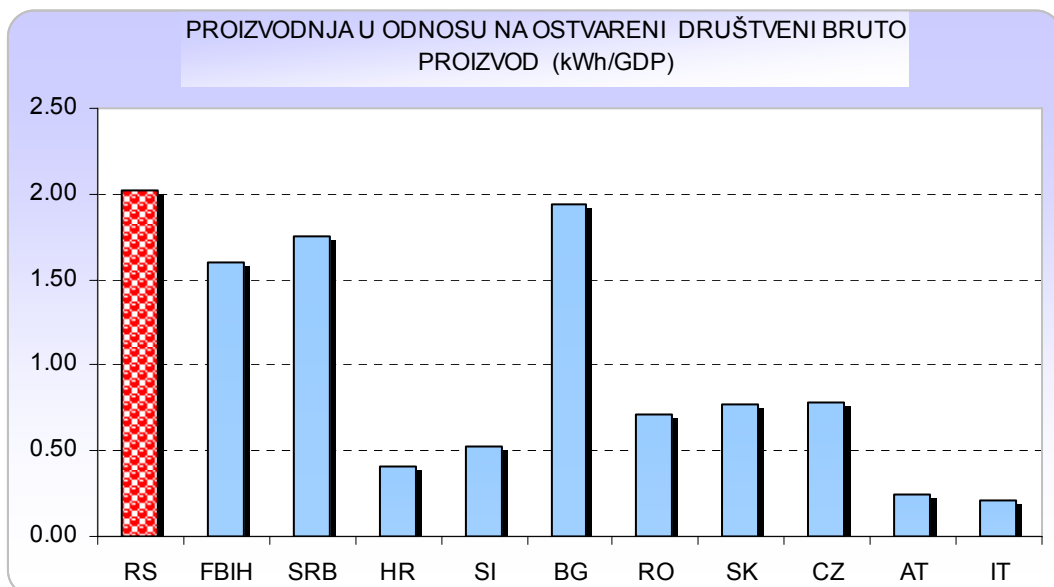
Figure 19 - Benchmarking overview of generation of electricity per inhabitant  
 Source: data calculated from the EUROSTAT base and ERS, EPBiH, EPHZHB and EPS reports<sup>3</sup>



Picture 20 - Benchmarking overview of net import of electricity per inhabitant

Picture 20 shows that Republic of Srpska belongs to the group of bigger net exporters of electricity in the region

On a short term basis, according to the above mentioned, it may be concluded that safety of supply was achieved. However, if it is taken into account social gross product, then safety of supply should be discussed in the context of projected changes and increase of consumption of electricity in the industry.



Picture 21 - Generation of electricity in relation to the social gross product

<sup>3</sup> RS - Republic of Srpska, FBIH - Federation of BiH, SRB - Serbia, HR - Croatia, SI - Slovenia, BG - Bulgaria, RO-Romania, SK- Slovakia, CZ-Czech, AT- Austria, IT - Italy

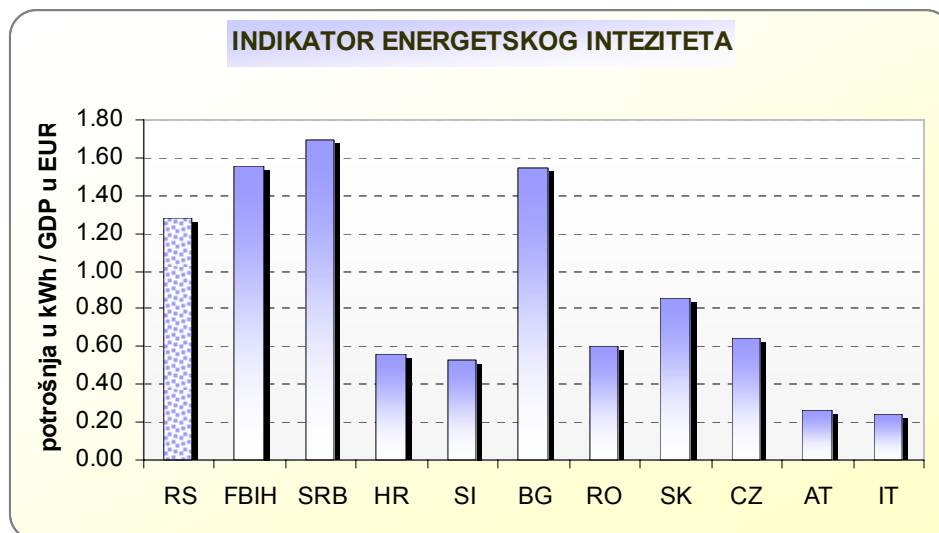
### 5.2.1. Safety of supply and energy efficiency

Energy efficiency is becoming more and more important element of total social efforts of the developed economies regarding increase of safety of supply.

Energy efficiency is the relation between social gross product and consumption of electricity. This amount expresses how efficiently the electricity is used in creation of the social welfare.

Having in mind a low level of industrial generation and employment in general, a share of consumption of households in total consumption of electricity, level of losses of electricity in the distribution network, energy efficiency in Republic of Srpska is very low, which means that creation of a new value expressed by the unit of social gross product consumes relatively more electricity than in most of other European countries. Energy intensity is the indicator of the same ratio, which shows consumption of electricity per the unit of the social gross product.

Benchmarking values of energy efficiency, i.e. energy intensity is presented by the next benchmarking overview between consumption of electricity per the unit of the social gross product:



Picture 22 - Benchmarking overview of the energy intensity

The increase of energy efficiency in developed economies is becoming one of the most important elements of the energy policy.

### 5.3 Construction of the generation facilities of electricity

In order to provide for safety of supply it is necessary to define the construction procedure of new generation capacities, which means that the procedure and its implementation comply with the objective, clear and impartial, the criteria published in advance. This procedure is called the procedure of issuance of licenses for construction of the generation capacities or authorization procedure. Applicants for construction of the facility, in case that they do not get the license

for construction, should be informed about reasons for it. The applicant should also be allowed to lodge a complaint in case of denial of the application for construction of the generation facility.

If it is not provided sufficient generation capacities for safe supply of customers, during the approval (authorization) procedure, i.e. if there is no market interest for construction of new generation capacities, the bids may be opened for construction of additional generation capacities which should be based on the criteria published in public.

Construction of generation capacities based on renewable sources for the concurrent generation of heat and electricity (co-generation) is additionally separately regulated.

Licenses (authorizations) for construction of the energy structures, generation structures as well, are issued by Regulator pursuant to Article 72 of the Law on electricity.

In 2006, Regulator did not get any applications for construction of the generation electric power structure.

#### 5.4 Safety of the electric power system and market of electricity

In order to ensure safety of one electric power system within the market circumstances, at least, following activities are needed:

- creation and regular annual update of the long term estimate of development of the transmission network by system operator in cooperation with transmission company,
- creation and regular annual update of the long term estimate of development of the electricity market,
- creation of the appropriate estimates of the safety of supply of customers of electricity based on estimate of development of the market and transmission network, and submitted applications for issuance of the approval for construction of the generation facilities;
- creation of plans of necessary measures for insurance of the necessary safety of the electric power system;

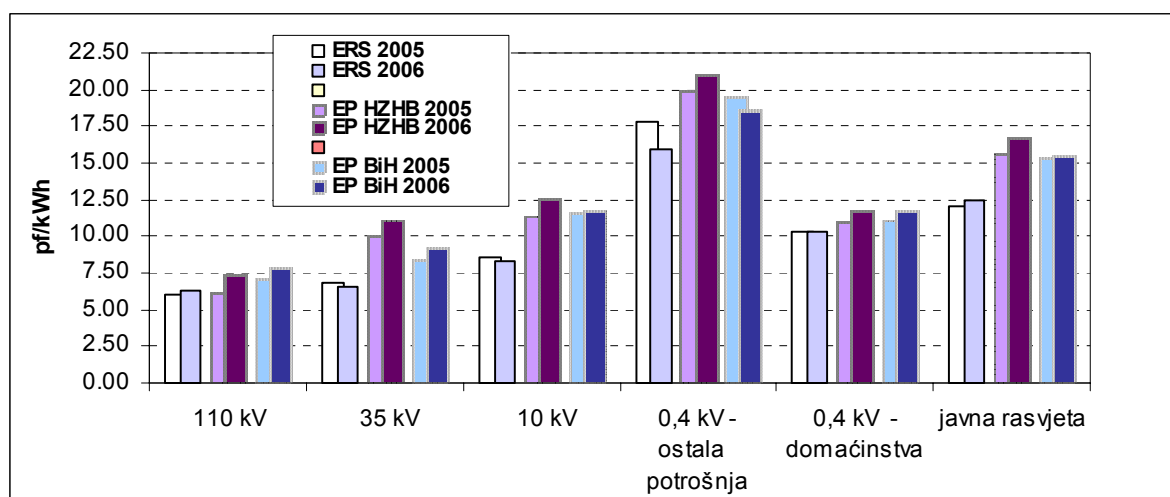
Safety of the electric power system in Republic of Srpska and Bosnia and Herzegovina, apart from the fact that the installed generation capacities exceed the needs of electricity consumption per energy and capacity and that the transmission network was completely reconstructed to the pre-war level, it is not consistently solved, either regarding legal and regulatory framework, or regarding clear defining of procedures and institutional responsibility. Laws on concessions, ecological laws and regulations, energy laws and other regulations require full harmonization in order to overcome possible misunderstanding in the process of construction of new and reconstruction of the existing electric power structures.

## 6 Benchmarking data on electricity prices in Republic of Srpska and surrounding

In the following table there are benchmarking average prices of electricity in Republic of Srpska and BiH Federation, based on the calculated average consumption of customers and average capacity charges of the respective categories of end users.

Categories of consumption	ERS		EPHZHB <sup>4</sup>		EPBiH	
	2005.	2006.	2005.	2006.	2005.	2006.
110 kV	5,99	6,30	6,16	7,36	7,13	7,86
35 kV	6,83	6,55	10,00	11,11	8,43	9,30
10 kV	8,57	8,30	11,36	12,59	11,63	11,73
0,4 kV- other consumption	17,85	15,91	20,02	21,07	19,56	18,66
0,4 kV - households	10,28	10,31	11,00	11,72	11,18	11,82
public lightning	12,00	12,39	15,65	16,68	15,40	15,50

Table 13 - Benchmarking average prices of electricity in BiH in 2005 and 2006



Picture 24 - Changes of average prices of electricity in BiH

Average prices were calculated based on the realized consumption of electricity for end users in Republic of Srpska in 2005 and 2006.

In the following table, there are average prices of electricity in Republic of Srpska for customers of certain consumption characteristics, based on EUROSTAT approach in 2006 with benchmarking values of the countries in the region, which data were available in the EUROSTAT Report and with data on electricity prices for the same volume and structure of consumption in Federation of Bosnia and Herzegovina.

<sup>4</sup> Data for EPHZHB and EPBiH from FERC

Category of consumption	Country	Average prices in Euro cents per one kWh (tax not included)						
		1996	2001	2002	2003	2004	2005	2006
Household	Slovenia	7,00	8,37	8,58	8,33	8,41	8,61	8,74
Industry	SI	5,33	6,03	5,99	5,82	6,09	6,11	6,51
Household	Slovakia					10,24	11,23	12,16
Industry	SK					6,83	7,03	7,73
Household	Czech		5,38	6,42	6,54	6,60	7,29	8,29
Industry	CZ		4,73	5,18	4,99	4,92	6,01	7,31
Household	Bulgaria					4,86	5,37	5,52
Industry	BG					4,09	4,29	4,60
Household	Hungary	3,72	6,34	7,23	7,33	7,94	8,51	8,96
Industry	HU	3,41	5,20	5,95	6,04	6,61	7,09	7,61
Household	Romania						6,55	7,92
Industry	RO				4,05	4,68	7,69	7,73
Household	Croatia						7,02	7,59
Industry	HR						5,56	5,96
Household	Greece	6,09	5,64	5,8	6,06	6,21	6,37	6,43
Industry	EL	5,71	5,71	5,9	6,14	6,3	6,45	6,68
Household	Spain	10,92	8,59	8,59	8,72	8,85	9,00	9,40
Industry	ES	7,56	5,5	5,2	5,28	5,38	6,86	7,21
Household	Italy	15,08	15,67	13,9	14,49	14,34	14,4	15,48
Industry	I	6,38	9,19	7,76	8,26	7,9	8,43	9,34

Table 14 - Prices of electricity (source: EUROSTAT)

Average prices for the standard customer per EUROSTAT methodology in Bosnia and Herzegovina are as follows:

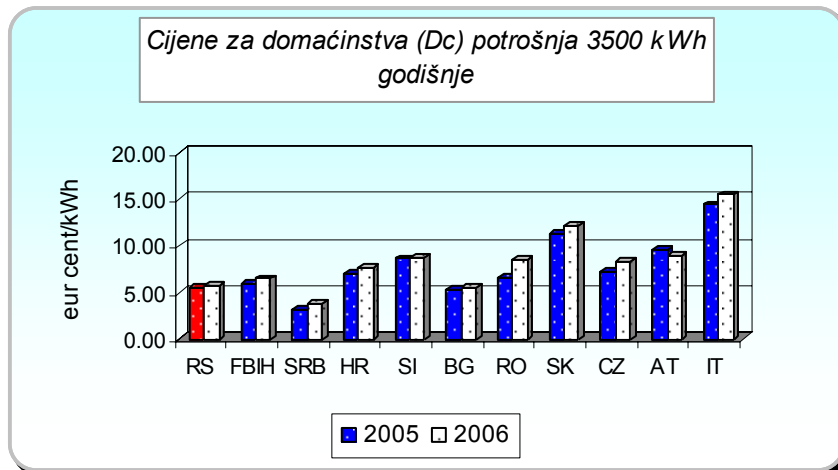
Type of consumption		2004	2005	2006
Household <sup>5</sup>	Republic of Srpska	4,50	5,44	5,76
Industry	RS	5,56	4,04	3,86
Household	Federation <sup>6</sup> BiH		5,97	6,47
Industry	FBiH		6,41	7,26

Table 15 - Benchmarking overview of electricity prices in BiH

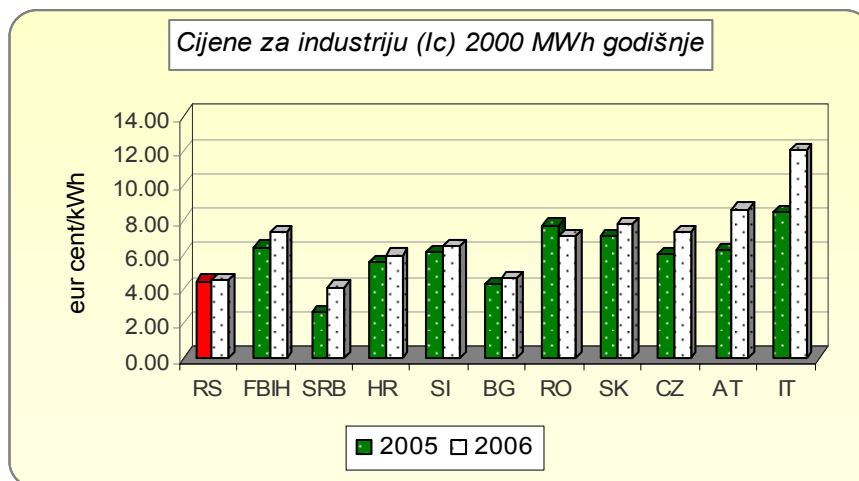
<sup>5</sup> EUROSTAT has no data for BiH. Average price for the standard customer in RS and FBiH calculated based on the Regulator data: for the standard industrial customer per tariff rates for 10 kV, and for standard customer from the category of household per tariff rates for customers with two-tariff meter

<sup>6</sup> Since 01 April 2006 different tariff systems have been applied in the region of EPBiH and EPHZHB. The average price for the standard industrial customer in the region of EPHZHB in 2006 was 7.55 Ec/kWh, while in the region of EPBiH, it was 6.97 Ec/kWh. For the standard customer - household in the region of EPHZHB, the average price was 6.71 Ec/kWh, and in the region of EPBiH it was 23 €/kWh.





Picture 25 - Benchmarking electricity prices for the standard customer from the category of household (consumption is 3500 kWh annually, out of which 1300 kWh at night)



Picture 26 - Benchmarking prices of electricity for the standard customer from the category of industrial customers (consumption of 2000 MWh annually, with 500 kW of capacity)