

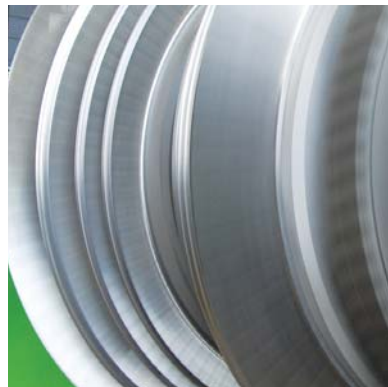


Annual Report 2011

Electric Power Industry of Serbia

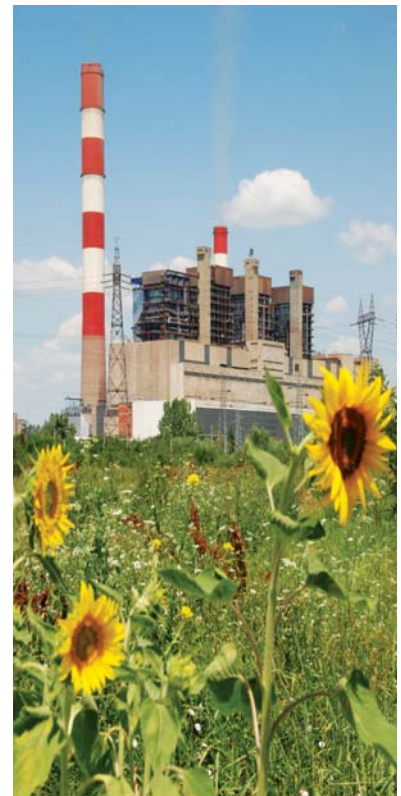
MISSION

Electric Power Industry of Serbia mission is secure electricity supply to all customers, under the most favourable market conditions, with continuous upgrading of the services, improvement of environmental protection and welfare of the community.



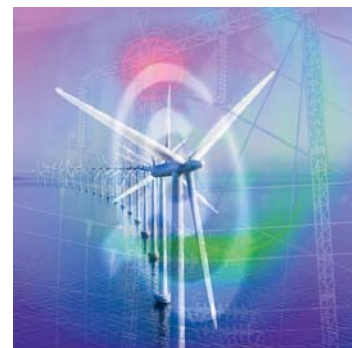
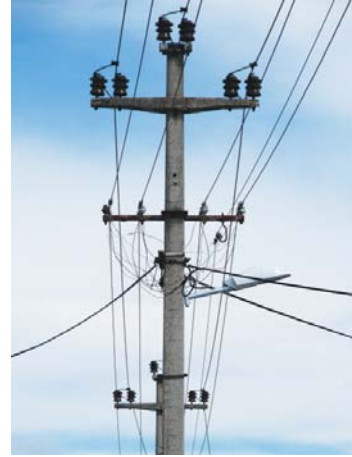
VISION

Electric Power Industry of Serbia vision is socially responsible, market-oriented and profitable company, competitive on the European market with a major impact in the region, recognized as a reliable partner among the local and international companies.



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Dragomir Marković

General Manager

Electric Power Industry of Serbia proved that it is the pillar of the state, the largest and the best company in Serbia in 2011. Besides difficult economic situation caused by financial crisis, EPS operated very well in 2011 and achieved significant results.

- Record generation output has been achieved. Shortage of generated kilowatt-hours in hydro power plants, caused by extremely long drought, has been overcome by excellent work of miners at open cast mines and employees of thermal power plants. TENT, MB Kolubara and TPPs-OCMs Kostolac achieved records in generation of electricity and coal exploitation. Reliability coefficient of TPPs reached 95.4 percent in 2011 and it is 2.2 percent higher than in 2010.
- Distribution companies have had good results as well. Distribution losses were reduced by 0.8 percent in 2011 when compared to the previous year and they amounted at 14.31 percent. Collection rate showed increase from 95.13 percent in 2010 to 96.59 percent in 2011.
- Despite large import of electricity during winter, EPS was net exporter of 245 million kilowatt-hours of electricity in 2011.
- If EPS has not been investing into rehabilitation and modernization of its capacities, all these

generation outputs would not be possible. Even though the idea of investing into modernization was often questioned, it is clear that even with one brand new thermal power plant and without rehabilitated capacities electric energy system of Serbia would not be that reliable. However, maximum generation has been achieved, but electricity demand in Serbia shows constant and unstoppable growth. Electric Power Industry of Serbia is at crossroads: whether to construct new power plants or to significantly increase electricity import in the forthcoming years if the state makes such a decision.

- Several contracts have been signed with potential strategic partners for construction of future joint new capacities. Italian company Edison S.p.A. has submitted its proposal at tender for finalization of construction of Thermal Power Plant Kolubara B (two units of 375 MW) and this project is ongoing. We have incorporated joint project companies for construction of ten small HPPs on Ibar River with Italian company Seci S.p.A and for construction of five HPPs on Velika Morava with German company RWE and started development of incorporation acts of the companies for construction of HPPs on middle and upper Drina. Negotiations for construction of the third unit in TENT B and Open Cast Mine Radljevo are ongoing and development of Feasibility Study with potential partners is in progress. Financing models of PSHPP Bistrica and/or Đerdap 3 are being taken into consideration. We got proposal for CHP Novi Sad at the tender.
- However, modernization of the system has not been stopped. Loans for modernization of TPP Kostolac B from EXIM Bank of China in the amount of USD 293 million, KfW bank for HPP Zvornik in the amount of EUR 70 million, EBRD for construction of 23 small hydro power plants in the amount of EUR 45 million, as well as EUR 80 million from EBRD and EIB for modernization of metering infrastructure have been approved.

- Pursuant to new Energy Law that was adopted in July 2011 deadlines for reorganization of EPS in accordance with EU regulations were set and starting point shall be unbundling of distribution system operator from public supply.
- New interim phase of EPS reorganization was developed and new organization structures have been formed – internal audit and business system control, human resources management and environmental protection. Investments were separated into investments in generation and in distribution that made conditions for establishment of new business units. Preparations for corporatization of the company have started in accordance with new Company Law. EPS has been intensively preparing for market opening and the game, since it can be competitive in the region.
- Promotion of EPS at numerous international and national events has been organized. “The Green Book” and “The White Book”, strategic documents on environmental protection and renewable energy sources were presented at the most prominent events. Representing of EPS in European energy institutions is part of support to the state in EU integration process and EPS has already started complying its obligations and standards with EU legislation.
- After publishing vacancy announcement and carrying out selection process, EPS hired the best 157 interns, with university degrees, full-time at the end of the year, whereas total number of employees was reduced by 0.7 percent and productivity was increased by 1.3 percent.
- Total revenue of the company amounted at RSD 254.2 billion and profit amounted at RSD 26.8 billion.
- Investments were worth from EUR 400 million to EUR 500 million in the previous years. That is, unfortunately, insufficient for independent construction of new power plants and necessary investment level for modernization of the existing ones.

- Value of the company is RSD 1,254 billion according to new valuation, i.e. about EUR 12 billion.
- All these achievements are a result of dedication, professionalism and knowledge of workers of the Electric Power Industry of Serbia.

Unfortunately, it is quite certain that these trends shall not continue in the forthcoming years unless the following measures are not undertaken:

- Set up of energy price parity;
- Economic (market) price of electricity – strengthening investment potential of Serbian electric power industry;
- Intensifying EPS restructuring process;
- Defining energy policy in line with EU regulations, strategy of sustainable development of energy sector of the Republic of Serbia and, based on it, development of new company strategy of EPS;
- Transfer of social policy matters to state affairs, including regulation of the status of public enterprises from Kosovo and Metohija;
- Introduction of strong financial discipline in operation of state enterprises and institutions as well as local self-government regarding settling electricity bills;
- Assistance of judicial and executive organs in the process of electricity debt collection;
- Operationalization of regulations in the domain of investment construction and ownership relations;
- Corporatization of Electric Power Industry of Serbia.





Aca Marković D.Sc.

Chairman of the Management Board

Electric Power Industry of Serbia achieved exceptional results in electricity generation and coal exploitation in 2011. About 36 billion kilowatt-hours were generated, that is 1.8 billion kilowatt-hours over the balance, meaning that the plan was exceeded by 4.5 percent. In coal exploitation results are even more impressive, since the plan was exceeded by nine percent and about 2.9 million tons of coal were produced over the plan!

Thanks to huge efforts of miners and people working in thermal sector, we managed to keep electric energy stability of the country and ensure regular supply of all customers.

We cooperated with the large international companies in 2011 and we shall continue to do so in the years to come. Large companies from Austria (Andritz hydro in HPP Bajina Bašta) and Russia (Silovie masini in HPP Đerdap) are currently present, German RWE is working on design and preparation for HPP Đerdap 3 and hydro power plants on Morava and there companies from Italy and China are engaged on other projects.

When signing all international contracts we are trying to give support to domestic producers, so that national economy might perform quality work on projects of large international companies. That is how their competitiveness increases.

Joint work with international companies enables acquisition of knowledge and experience that shall later on be successfully applied by some of our domestic companies in our company, as well as on world markets. During the year, in cooperation with international and national companies, we have performed overhauls and rehabilitations at HPP Đerdap 1, where 2,500 tons of equipment were installed. Sixth unit was put into operation in July 2011, with capacity increase of 16 MW. Rehabilitation of unit 2 at HPP Bajina Bašta was also finalized, with capacity increase of 12 MW. The unit was put into operation on 8.10.2011.

We have constructed small hydro power plant with two units during 2011, with total capacity of 860 kVA, at Prvonek reservoir near Vranje. This experience shall be applied to 21 reservoirs for water supply across Serbia. We are preparing significant investments into infrastructure that shall include installation about 250,000 new, smart meters and metering groups, about 100,000 concrete poles with new equipment and higher quality cables, as well as overhaul of 54 substations that we shall overtake from PE Elektromreža Srbije.

Electric Power Industry of Serbia is the company of open heart and it helps everyone – health care, education, science, art, sports, all religious confessions... We have helped construct kindergartens in undeveloped municipalities. We have participated in all mass humanitarian aids, such as procurement of incubators and other equipment for babies. We have recognized in sports and success of sportsmen primal strength of the nation and with donations we have helped achievement of some of the most significant sports' victories. We develop cooperation with Olympic Committee of Serbia and we have supported our team at the last London Olympic Games.

At the occasion of the company day, EPS Management Board has decided to give RSD 10.5 million, i.e. three donations of RSD 3.5 million each, to kindergarten "Galeb" from Petrovac na Mlavi, "Dečja radost" from Lebane and Clinical Hospital Centre Priština, with its seat in Gračanica.

We pay special attention to the employees. We are aware that their education raises the company value. We constantly call upon all employees to continuous education in various fields, since that will improve quality of their own life and the value of the company as well.

Commitment of miners that managed to produce almost 10 percent more of lignite without significant investments shows key importance of human factor. The secret is in adequate skills and good practice that is called human resources management that has been fostered in EPS for years.

We are satisfied with good cooperation between EPS Trade Union, management and EPS Management Board. Partnership contributes to stable and successful operation of the company.

Electric Power Industry of Serbia has shown that it was the leading domestic company in 2011 and that it is not only the factor of electric energy stability but wider economic and social stability as well.



Company Data

Name of the company	Public Enterprise Electric Power Industry of Serbia Belgrade (PE EPS Belgrade)
Head Office	11 000 Belgrade, 2 Carice Milice St
Phone and Fax	+381 11 20 24 600, +381 11 26 27 160
Email, website	eps@eps.rs, www.eps.rs
Registration	Decision BD 80380/2005 Serbian Business Registers Agency
Registration number	20053658
TIN	103920327
Establishment	Public Enterprise Electric Power Industry of Serbia was established July 1 st 2005 by the Government of the Republic of Serbia.

Organizational structure

Vertically organized enterprise that founded 12 subsidiaries and three public enterprises at Kosovo and Metohija. As of June 1999 EPS has not been operating its capacities at Kosovo and Metohija. On the basis of founding PE EPS has shares in subsidiaries:

- Company for cogeneration of thermoelectric power and heating energy Energija Novi Sad JSC Novi Sad, founded with Novi Sad City, in the amount of 50 percent of shares in Company's equity;
- Company Ibarske hidroelektrane Kraljevo, founded with Seci Energia S.p.A, Italy, with 49 percent of shares in Company's equity;
- Company Moravske hidroelektrane Beograd, founded with RWE Innogy, Germany, with 49 percent of shares in Company's equity.

Ownership structure 100 percent owned by the Republic of Serbia.

Management

Management Board, Supervisory Board and General Manager, all appointed by the Government of the Republic of Serbia. General Manager, Chairman of Management Board, Deputy and Assistant General Manager for Technical System, Common functions Managers and Executive Directors form the management of the enterprise.

Activity

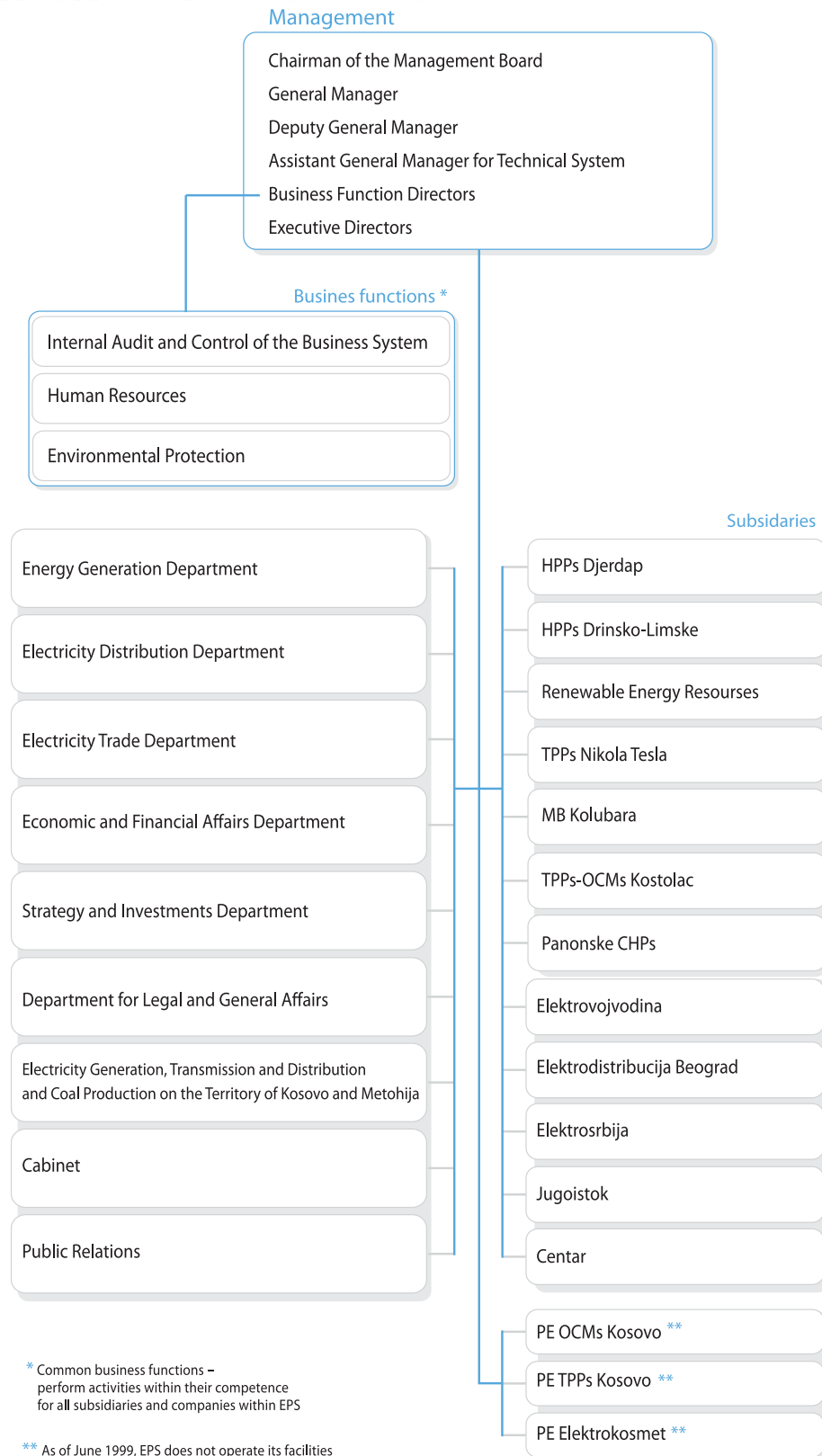
Main activity of PE EPS is electricity trade, and electricity generation and distribution, distribution system management, production, coal production, processing and transport, steam and hot water production in combined processes, are performed in subsidiaries founded by PE EPS for performing stated activities.

Number of employees: 29,136 (without Kosovo and Metohija)
33,851 (with Kosovo and Metohija)

Net financial result: RSD 26.8 billion

Value of the company: RSD 1,254 billion

Organizational Chart



* Common business functions – perform activities within their competence for all subsidiaries and companies within EPS

** As of June 1999, EPS does not operate its facilities on the territory of Kosovo and Metohija

EPS in Figures

GENERATION CAPACITIES

net output capacity

Kosovo and Metohija not included 7,124 MW

Kosovo and Metohija included 8,359 MW*

ELECTRICITY GENERATION

Kosovo and Metohija not included 36,050 GWh

Kosovo and Metohija included 41,284 GWh

COAL PRODUCTION

Kosovo and Metohija not included 40,290,397 t

OVERBURDEN REMOVAL

Kosovo and Metohija not included 111,205,085 bcm

EPS GROSS CONSUMPTION

Kosovo and Metohija not included 34,450 GWh

Kosovo and Metohija included 40,215 GWh

FINAL ELECTRICITY CONSUMPTION

Kosovo and Metohija not included 28,607 GWh

NUMBER OF CUSTOMERS

Kosovo and Metohija not included

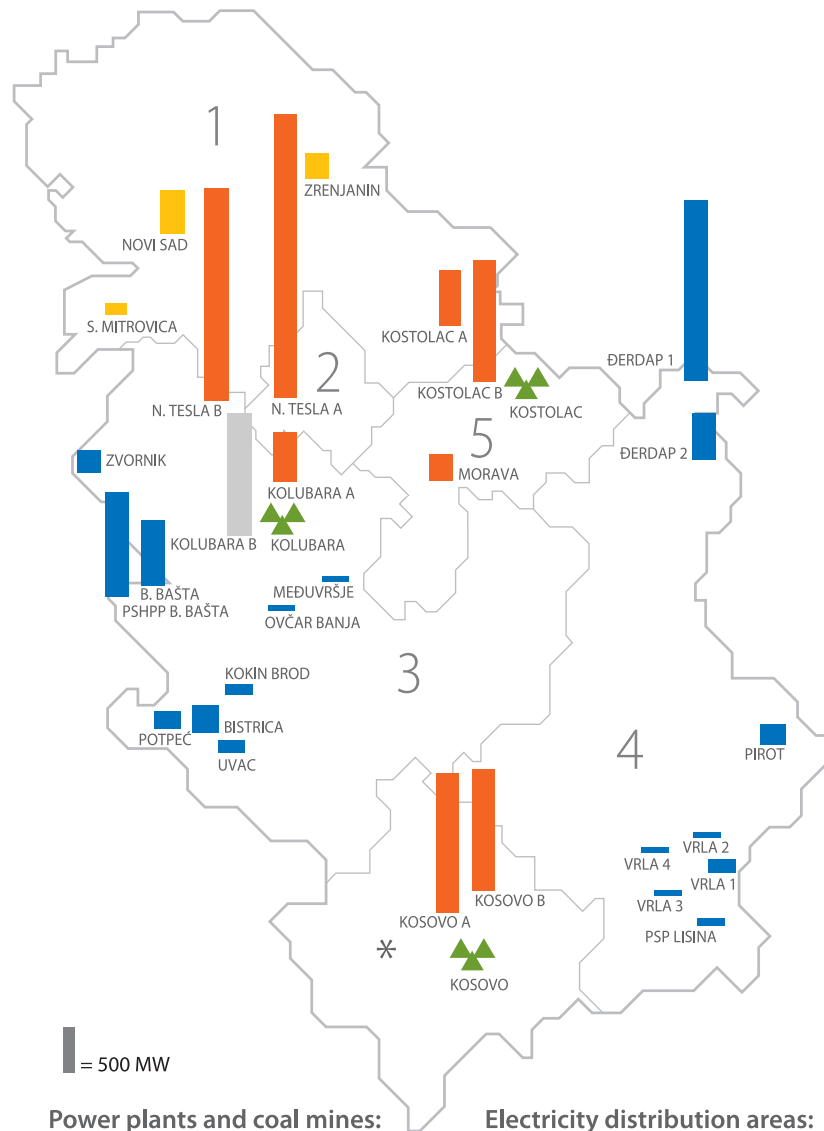
Total 3,525,418

At high and middle voltage 4,133

At low voltage 3,521,285

* As of June 1999, EPS does not operate its facilities on the territory of Kosovo and Metohija

EPS Installed Capacities



Power plants and coal mines:

- TPP
- TPP UNDER CONSTRUCTION
- CHP
- HPP
- ▲ COAL MINE

Electricity distribution areas:

- 1_Elektrovjvodina Ltd. Novi Sad
- 2_Elektrodistribucija Beograd Ltd. Beograd
- 3_Elektrosrbija Ltd. Kraljevo
- 4_Jugoistok Ltd. Niš
- 5_Centar Ltd. Kragujevac
- *_PE Elektrokosmet, Priština

* As of June 1999, EPS does not operate its facilities on the territory of Kosovo and Metohija

History

1870. Beginning of coal mining in Serbia, in the pit Stari Kostolac. Đorđe Vajfert was the owner of the mine. Due to investments into exploration of mining resources of Serbia, his name entered the history of Serbian mining.

1884. The first lightning was introduced in Serbia in the section of Military Technical Office in Kragujevac, so that production of bushes could continue during the night. The credit for this belongs to an engineer Todor Toša Selesković. He was the first constructor of machines in Serbia and he constructed the first water turbine in Serbia.

1892. Nikola Tesla visited Belgrade for the first and only time. The citizens of Belgrade and people from all over Serbia as well prepared memorable reception for him.

1893. The first public power plant in Serbia was put into operation – thermal power plant at Dorćol in Belgrade. That was the beginning of electrification of Serbia and all the credit goes to a physics professor Đorđe Stanojević. October 6th is the day when this thermal power plant was put into operation and it is celebrated as the Day of the Electric Power Industry of Serbia.



1896. Coal exploitation began in the pit Tvrdojevac in Kolubara. For a long time in Kolubara pits, the coal wagons were drawn by - horses!



1900. Hydro power plant Pod gradom in Užice on Đetinja River was put into operation, as the first power plant

in Serbia based on Tesla's principles of alternating current. This hydro power plant is still in operation.

1903. Hydro power plant Vučje started operating on Vučjanka River near Leskovac. The first transmission line in Serbia, 17 km long, was built from this power plant to Leskovac. This hydro power plant is still in operation.

1908. Hydro power plant Sveta Petka, on Nišava River, near Niš, was put into operation. It is still in operation today. A few kilometers downstream, HPP Sićevo was constructed at a later stage.

1909. Hydro power plant Gamzigrad on Timok River, near Zaječar, was built. It is still in operation today.

1911. Hydro power plant Moravica, on the river with the same name, in Ivanjica, was put into operation. It is still in operation today.

1932. Thermal power plant Snaga i Svetlost was built in Belgrade. It was one of the largest plants in the Balkans at that time.

1943. Kostolac, the first open-cast mine was opened in Serbia. Open-cast mine was closed in 1980.

1948. The first hydro power plant built after World War II was HPP Sokolovica on Timok River, near Zaječar.

1952. Open-cast mine Kolubara was put into operation.

1954. HPPs Ovčar Banja and Međuvršje on Morava River, near Čačak, were put into operation.

The first kilowatt-hours of electric energy from HPPs Vlasinske were generated, which then represented a third of the total energy produced in Serbia.

1955. HPP Zvornik was put into operation.



1956. TPP Kolubara A was put into operation in Veliki Crljeni. Today it is the oldest active TPP in EPS.

Coal exploitation at Open Cast Mine Kosovo has started.

1960-1969. HPPs Bistrica, Kokin Brod, Potpeć and Bajina Bašta were built. TPPs Kostolac A, Morava, Kosovo A and CHP Sremska Mitrovica were put into operation.

1970. TPP Nikola Tesla A, the largest TPP in the Balkans, was put into operation.



1970. The operation of the hydro-power and navigation system (HEPS) Đerdap 1 began – the largest hydro-technical facility on Danube River and the biggest producer of hydro-power in Southeast Europe.



1978. PSP Lisina was put into operation.

1979. HPP Uvac was put into operation, on the lake with the same name, at about 1,000 meters above sea level.

1982. Pumped-Storage Hydro Power Plant Bajina Bašta was built, the genuine jewel of Serbian electric power system.

1983. TPPs Nikola Tesla B and Kosovo B were put into operation.

1985. HPP Đerdap 2 was put into operation, the second joint Serbian and Romanian HPP on Danube River.

1987. TPP Kostolac B was put into operation.

1990. At Zavojski Lake Hydro Power Plant Pirot was constructed.

1991. Public Enterprise Electric Power Industry of Serbia was established.

1999. During the NATO bombing, EPS's electric power facilities suffered great damages.

2004. After a thirteen-year pause, the electric power system of Serbia was again connected with the first UCTE synchronous zone.

2005. The activity related to electric energy transmission was spun-off from PE EPS and two independent public enterprises were formed: PE Electric Power Industry of Serbia and PE Elektromreža Srbije.

2006. From January 1, Electric power Industry of Serbia has been operating as a public enterprise with its 11 subsidiaries.

2006 - 2011. EPS invested in rehabilitation and development of all its capacities around EUR 1.032 billion of own funds.

and construction of two units of 375 MW capacities each, and the equipment meets the strictest criteria of environmental protection in accordance with national and European regulation.

No proposal was submitted for the construction of TENT B3.

- Electric Power Industry of Serbia and German company RWE Innogy signed Articles of Incorporation of Joint Venture Moravske Hidroelektrane that shall build five hydro power plants of 150 MW capacity on Velika Morava River.
- “The White Book of Electric Power Industry of Serbia” was promoted in Belgrade – this is the strategic document of EPS which follows the goals of European Union until 2020 in the field of renewable sources and energy efficiency. This document is also presented at the investment conference organized by Energy Community of Southeast Europe in Vienna.

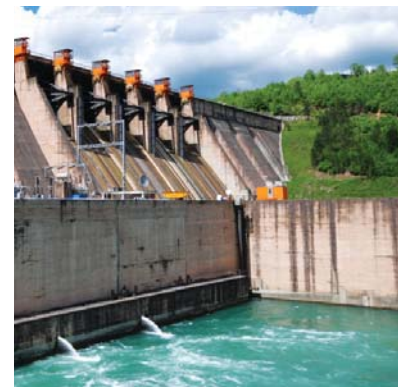
JUNE

- EPS made the decision to accept submitted proposal of Italian company Edison S.p.A. for the continuation of construction of TPP Kolubara B.
- State delegations of Italy and Serbia met in Rome and Belgrade and discussed, among other things, about common project of EPS and Seci energia S.p.A for the construction of 10 small hydro power plants on River Ibar.

- In EU Directorate General for Energy in Brussels the delegation of EPS presented the most important projects for the construction of new energy capacities in the field of renewable energy sector from “The White Book of the Electric Power Industry of Serbia”.
- The foundation stone for the first solar power plant in Serbia was set, joint project of “Dunav Osiguranje”, EPS and Čajetina Municipality; power plant capacity is 5 MW, and total investment for power plant is EUR 15 million.

JULY

- In hydro power plant Đerdap 1 rehabilitated sixth aggregate was commissioned and by this plant is revitalized and its capacity increased for 10 percent.
- The Government of the People’s Republic of China approved Serbia soft loan in the amount of 300 million dollars for the rehabilitation of existing and the construction of new capacities.
- EPS and EBRD signed the Loan Agreement worth EUR 80 million with which the Project for Environmental Improvement in MB Kolubara will be implemented. KfW bank should approve loan of EUR 74 million for this project, and EPS shall provide 15 percent of the necessary funds from its own funds.
- IPA Agreement was signed for 2011, in the total amount of EUR 178.5 million, of which EUR 38.6 million was planned for energy, environmental protection and fight against climatic changes.



From the money planned for those projects, EU with EUR 15 million donates the construction of facility for waste water treatment in TPP Nikola Tesla B.

- The Assembly of Serbia adopted the Energy Law. As proponents said, according to that law all branches of Serbian energy are open for free investing and open market game.
- Relocation of local cemetery in Vreoci settlement started, that was not allowed in the previous months by smaller groups of residents of the settlement. In the area of Vreoci around 600 million tons of lignite, of which exploitation depends regular electricity supply in Serbia during the following years and decades.

AUGUST

- In departments and sector of PE EPS the recertification verification of the quality management system in accordance with the requirements of ISO 9001:2008 standards. Certification body "TUV SUD" gave positive report.

SEPTEMBER

- The Phase II of HPP Bajina Bašta rehabilitation, by which the operational life of this plant is exceeded from 30 to 40 years.

OCTOBER

- At the occasion of company day, the Management Board of EPS gave three donations of RSD 3.5 million to preschool institution "Galeb", from Petrovac na Mlavi Municipality and "Dečja radost" from Lebane, as well as to Clinical Hospital Centre Priština, with its seat in Gračanica.
- On the European Future Energy Forum in Geneva, the delegation of EPS presented the most important strategic and development projects of the company.
- At the conference "Potentials of investments in energy sector of Serbia" held in Barcelona, the Government of Spain, Catalan Energy Agency and several companies from Spain signed Memorandum on Cooperation with EPS in the field of renewable energy sector in Serbia.
- The Management Board of EPS decided to establish new subsidiary of EPS for electricity production from renewable energy sources "EPS Obnovljivi izvori" with the seat in Užice.
- Electric Power Industry of Serbia and Chinese companies' Consortium "China Environmental Energy Holdings" (CEE) and "Shenzhen Energy Group" (SEC) signed protocol on Implementation of Development Projects in energy sector of Serbia, among which are firstly the construction of third unit of TPP Nikola Tesla B and opening of OCM Radljevo. Total investment value for unit 3, of 744 MW, which will supply the new unit with coal, is estimated on more than two billion EUR.



NOVEMBER

- Electric Power Industry of Serbia signed with the representatives of the Government of Japan a contract on the loan worth EUR 245 million, for the construction of desulfurization plants in TENT. Total value of the construction of desulfurization system is EUR 300 million and remaining 15 percent of the funds shall be secured by EPS. This shall be the first such desulfurization system built in Serbia.
- TENT, TPPs-OCMs Kostolac and MB Kolubara took part in the humanitarian campaign of B92 Fund - "Battle for Babies", which raised funds for the purchase of 160 new baby incubators for 40 medical institutions across the country.
- Small hydro power plant Prvonek on Banjska River in the vicinity of Vranje, started its test operation and electric energy production. Power plant capacity is 860 kW and EUR 1.55 million investment was financed by EPS only.

DECEMBER

- Small hydro power plant Moravica in Ivanjica celebrated 100 years of its operation. Plant has large cultural and historical significance and represents the symbol of new era, the electricity era.
- Consortium of bidders from Greece, Slovakia and the Russian Federation submitted the proposal within the project of bringing in strategic partner for investing in the modernization project and/or increasing the capacities of CHP Novi Sad.
- Contract on loan for the implementation of phase I of the project for rehabilitation of units B1 and B2 in the thermal power plant in Kostolac. Total value of the project is USD 344.63 million and 85 percent of the value shall be financed from the loan of Export-Import Bank of China (EXIM Bank).



Economic and Financial Operations

Several basic indicators characterized the economic image of Serbia in 2011. Compared to the previous year, 2010, these indicators are:

- Total industrial production recorded a cumulative growth of 2.1 percent;
- Increased production in mining sector was 10.4 percent on annual level, and in the sector for electricity, gas and steam supply, and civil engineering sectors it increased by 9.7 percent;
- Processing industry recorded a drop by 0.4 percent on annual level. It was lowest in the last quarter of the year;
- Reduction of the number of employees also continued, so there are 2.8 percent less employees. However, the intensity of the reduction was more moderate compared to the previous year;
- Annual growth rates for export, import and deficit were almost equal and were around 14 percent;
- Inflation was seven percent, measured by consumer price index in December 2011, compared to December 2010;
- Average annual growth of consumer prices of 11 percent was also measured;
- Total annual value of gross domestic product at fixed prices shown 1.58 percent growth.

Positive result in industrial production was achieved due to the production growth of around ten percent on annual level in mining, electricity, gas and steam supply, and civil engineering sectors. Industrial production growth was recorded in the last quarter of the year.



External risks of operations were power-products price growth on the world market and instability in EUR zone, and internal risks were production stoppage in iron and steel plant US Steel, and later also the withdrawal of the company from the market of Serbia (export share of US Steel in total export during last three years was around ten percent average).

Export was characterized with already present reduction of demand for the main Serbian export products on international markets, at which we were traditionally present. Slowdown of the export growth was recorded in the second half of the year, especially in November and December.

The biggest impact on inflation had the price of food, which increased by 9.4 percent, and oil derivatives had the biggest price growth by 13.4 percent and regulated prices by 10.5 percent.

Financial Results of EPS's Operation

EPS production capacities have several years in a row had high electricity generation that is above the standard. Generation in 2011 has exceeded the plan and results made in the previous year.

Record high electricity consumption led to surplus decrease. Monthly deviations of consumption dynamics and electricity generation are considerable compared to the plan and previous year, which also depends of the climatic and hydrologic conditions.

Coal exploitation was by nine percent higher than planned and eight percent higher than in the previous year.

Demand increase for this type of power led to considerably higher production of technological steam and thermal energy than planned and higher than in the previous year.

Electricity losses on distribution network were 14.31 percent. That is by 0.8 percent less than the losses in 2010.

Supplies to other companies (export and other electricity traders) of 2,079 GWh are by 42 percent higher than planned and by 20 percent less than in the previous year. Electricity was mainly exported in summer period, when consumption in Serbia is at the lowest level.

External electricity supplies on demand area of Serbia in 2011 of 27,974 GWh are at the level of the plan, but by two percent higher than in the previous year.

During 2011, valuation of property, plants and equipment as of 01.01.2011 was performed. Net value of property, i.e. EPS's capital, is high considering that EPS uses considerable resources in business operations and has relatively low debt rate.



Net financial result	26.8
Company value	1,254 RSD billion
Operating profit	29,604
Loss	9,683 RSD million

Realized operating profit is the result of performed fixed assets valuation by which the increase of book value of property, plants and equipment is acknowledged as revenue in profit and loss statement up to the amount by which reduction after revaluation of the same assets is being cancelled.

Operating expenditures presented in consolidated balance sheet of EPS in 2011 are 179.1 billion dinars, which is by seven percent more than the planned and 13 percent more than in the previous year (Tables, page 76).

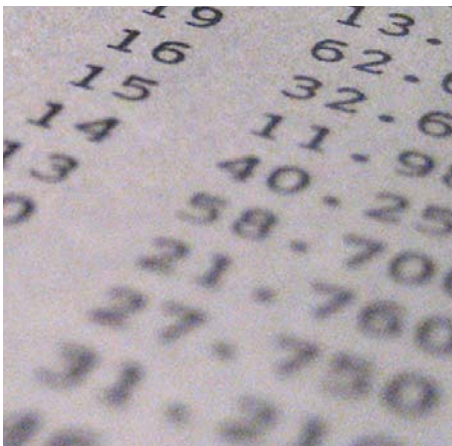
Preferable influence on expenditures increase is in the biggest part the result of the increased electricity procurement due to the high draught. Electricity procurement costs presented in consolidated balance sheet of EPS for 2011 are by 12 percent higher than in the previous year, and valuation of fixed assets value led to the increase of amortization costs for 19 percent compared to the previous year.

Accumulated losses in business operation are 126 billion dinars.

The company's financial position regarding liquidity and profitability is still unfavorable in the conditions of the high indebtedness from previous years. Total liabilities as of 31.12.2011 are 157 billion dinars, and receivables are 165 billion dinars (gross).

Participation of total liabilities in equity and reserves is 15.4 percent. Short term liabilities are 61.3 percent of total liabilities.

Electricity export was not planned for 2011 and in that year export was 764 GWh. The profit of 4.3 billion dinars was realized due to that. Electricity import realized in winter months is by 509 million kWh higher and due to that the expenses are by 4.4 billion dinars higher than the planned.



Achieved Electricity Prices

The average electricity selling price for external supply in EPS consumption area in 2011 was 5.587 RSD/kWh VAT excluded.

Average electricity prices in the EPS consumption area (external supply)					
Category of consumption	Actual 2011.	Plan 2011.	Actual 2010.	Indices	
	RSD/kWh				
	1	2	3	1/2	1/3
High voltage (110 kV)	3.928	3.912	3.415	100	115
Middle voltage - total	5.132	5.149	4.530	100	113
Total high and middle voltage	4.790	4.783	4.220	100	114
Low voltage (0.4 kV I level)	7.654	7.532	6.714	102	114
Mass consumption - total	5.585	5.576	4.997	100	112
- 0.4 kV II level	7.309	7.365	6.491	99	113
- households	5.355	5.340	4.801	100	112
Public lighting	5.054	5.082	4.541	99	111
Total low voltage	5.892	5.865	5.248	100	112
TOTAL	5.587	5.577	4.973	100	112

After price increase by 15.1 percent on average, starting from 1 April achieved level of electricity price for external supplies for the consumption area of Serbia is 5.79 RSD/kWh. That increase enabled only covering operating expenditures.

Long-term policy of uneconomic electricity price caused extremely high specific electricity consumption by gross domestic product and irrational share of this expensive type of energy for the purpose of satisfying total final energy consumption in Serbia.

Electricity Trade



Electric Energy Balance

Realization of Electric Energy Balance (EEB) during 2011 diverged partly or significantly from balance assumptions, depending on the period of the year and aspect of observing the elements of the balance.

From the aspect of temperature ranges in Belgrade in 2011, the year was 1.2°C warmer than the 120-year average. Electricity consumption (excluding Kosovo and Metohija) amounted to 34,450 GWh which is 1.1 percent more than the balance, although the year was warmer. The greatest consumption deviation occurred in the first and fourth quarters. February was one degree cooler than average and therefore the consumption was higher than the balance by around 150 GWh, i.e. 4.6 percent. November was 2.4°C cooler than average, and the consumption was higher than the balance by around 200 GWh or 6.4 percent.

From the aspect of inflow levels in hydro power plants' profiles, 2011 was characterized by extremely bad hydrology which started from March and lasted until the end of the year. Run-of-river hydro power plants produced 1,538 GWh, i.e. 16.4 percent, less than the balance, while the inflow in reservoir hydro power plants (with HPP Piva) was 468 GWh lower. This constituted a deficit of as much as 2,006 GWh in hydro energy.

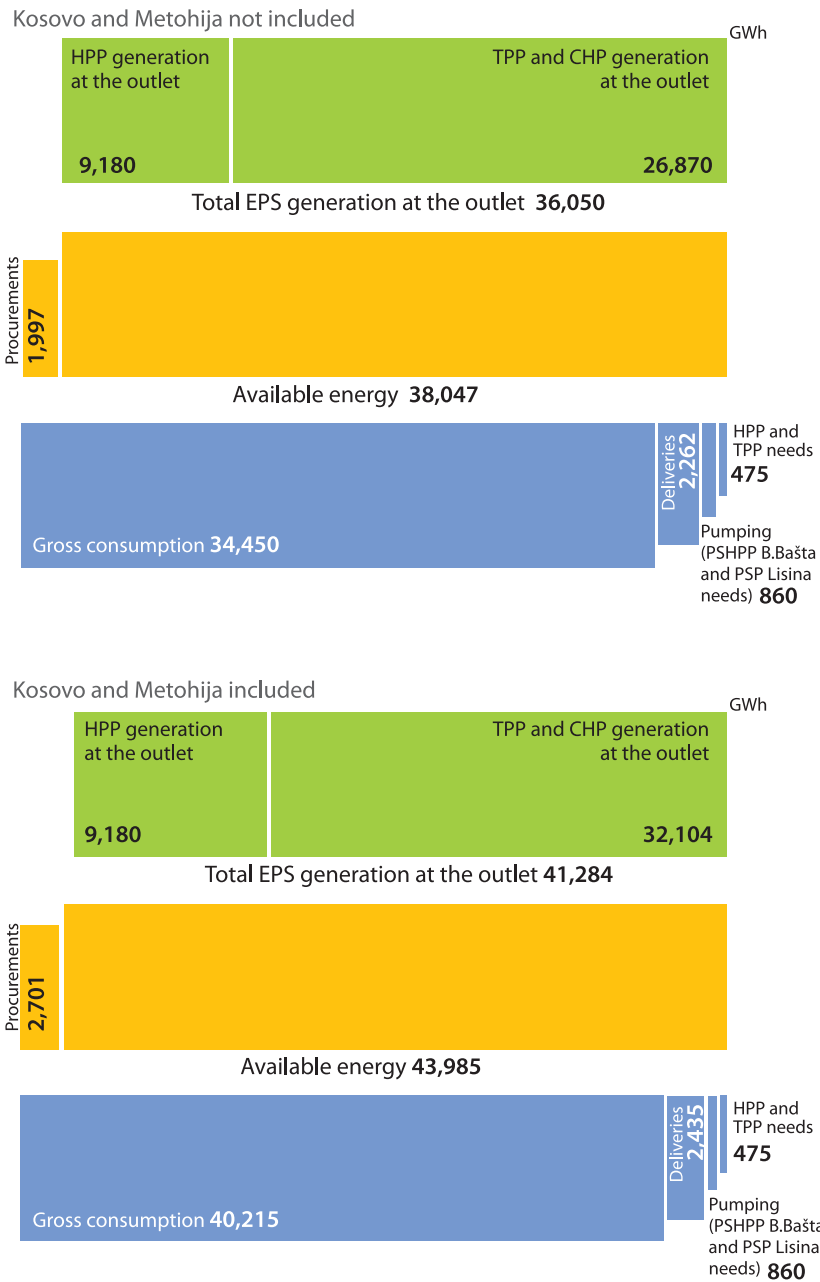
Due to highly reliable operation, as well as to significant modification of overhaul schedules, the output of coal-fired thermal power plants (excluding Kosovo and Metohija) was by around 2,160 GWh, i.e. 8.9 percent, greater than the balance, which made the effects of extreme drought imperceptible up to the fourth quarter.

The output of thermal power plants-heating plants exceeded the balance by around 230 GWh, out of which 170 GWh in November and December, when they operated for needs of EPS.

For the purpose of secure implementation of electric energy balance, 1,106 GWh of electric energy was bought, 509 GWh more than the balance. The largest over the balance purchase of electric energy, in the amount of 619 GWh, was made in the fourth quarter. The exceptional generation of coal-fired thermal power plants, as well as greater engagement of thermal power plants-heating plants, were not enough to remove entirely the consequences of drought and higher consumption.

The higher generation of coal-fired thermal power plants enabled sale of 764 GWh of electric energy in free market in 2011 (primarily in the second and third quarter).

ACHIEVED ELECTRIC POWER BALANCE



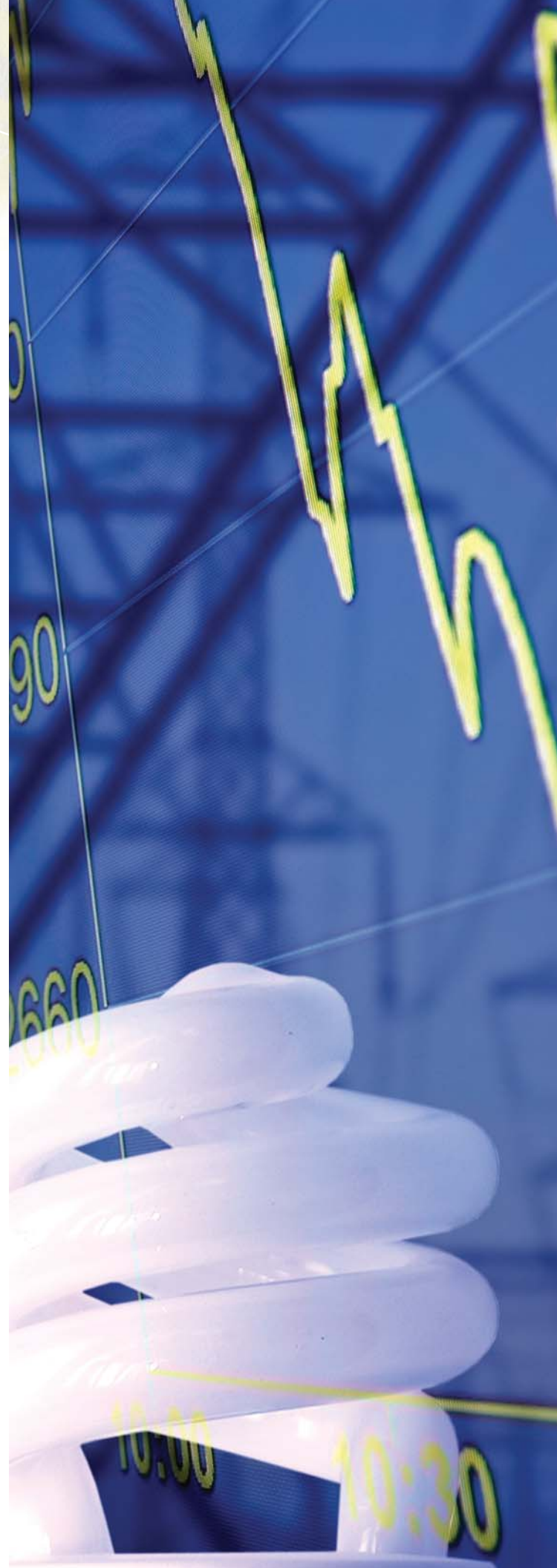
Regulated Market

Tariff customers' supply in the Republic of Serbia was realized on the basis of annual contracts of PE Electric Power Industry of Serbia with business companies for generation and business companies for distribution of electric energy within EPS. Likewise, on the basis of annual contracts, the sale of electric energy and power to the Public Enterprise Elektromreža Srbije was realized with the aim of secure and stable operation of electric power system. Thus the supply of tariff customers was enabled, but also the trade in electric energy in the region of South-East Europe where the electric power system of Serbia represents the key system.

Free Market

Electricity Trade Department sold the electric energy in internal and regional market in 2011. The trade was carried out with 16 companies and 764 GWh of electric energy in total were sold.

Purchase of lacking quantities of electric energy was in accordance with the Public Procurement Law. PE EPS bought the lacking quantities of electric energy from nine companies licensed in the Republic of Serbia for trade in electric energy and one foreign company, with total quantity amounting to 1,106 GWh. Cooperation with Electric Power Industry of the Republic of Srpska and Electric Power Industry of Montenegro in the field of purchase/sale of electric energy, on the basis of annual contracts, was at the partner level and according to contractual obligations.



Purchase of Electric Energy from Privileged Producers

Electricity Trade Department purchased, in 2011, electric energy from privileged producers on the basis of the Decision of the Government of the Republic of Serbia and signed contracts. Electric Power Industry of Serbia purchased from 21 privileged producers of electric energy 13,757,808 KWh of electric energy at privileged prices. From privileged producers, 63.89 percent of total electric energy purchased in 2011 was bought from hydro-generation, 35.24 percent from generation from fossil fuels, 0.86 percent from generation from biogas and 0.01 percent from solar generation.

Open Cast Mines

Coal is a strategic and a dominant energy source in Serbia. It provides energy stability and security of the country. This is supported by the production results of EPS open cast mines in 2011.

Unprecedented and prolonged drought caused a hydropower crisis and forced coal mines and thermal power plants to assume major responsibility for the state's power supply stability.

In 2011, open cast mines at the territory of the Republic of Serbia operated by EPS (Kolubara and Kostolac basins)* produced 40,290,397 tons of coal. This is a record coal production in both of the coal basins. It is some nine per cent higher than the planned one.

The MB Kolubara open cast mines produced 31,060,623 tons of coal (77.10 percent out of the total lignite production) which is a record production for the MB Kolubara.

The Kostolac open cast mines also realised record annual coal production of – 9,229,774 tons (22.90 percent out of the total lignite production). This is no mean feat, given that the Drmno Open Cast Mine investment cycle has still not been fully realised to provide such an operating level.

Out of the total electricity generation in 2011, almost 73.48 percent was generated by the EPS thermal power plants firing coal originating from the Kolubara and Kostolac open cast mines. Coal produced by the MB Kolubara made possible the generation of some 55.20 percent of the total electricity generation of EPS, while the share of OCMs Kostolac was 17.60 percent. The Morava TPP fired coal produced by the PE Underground pit mine exploitation and its share in the total electricity generation of EPS is 0.68 percent.

Within the RB Kolubara, EPS' largest subsidiary, coal mining was carried out on four open cast mines: Field B, Field D, Veliki Crljeni and Tamnava – West Field. They supplied coal to the Kolubara TPP, Nikola Tesla A and B TPPs and Morava TPP. Coal production plan of this subsidiary was realised with 105 percent, 15 days before the year-end.

Coal mining in the OCMs Kostolac subsidiary was performed on the Drmno Open Cast Mine, supplying coal to the Kostolac A and B TPPs, and partially to the Morava TPP. Coal production plan of this subsidiary was realised with 122 percent, 57 days before the year-end.

Average calorific value of the coal supplied to the thermal power plants from the RB Kolubara and the OCMs Kostolac subsidiaries was 7,517kJ/kg and 8,147kJ/kg, respectively.

Coal production was preceded by adequate overburden removal. The stripping ratio (overburden to coal ratio) was 2.31m³/t and 4.28m³/t at the MB Kolubara and OCMs Kostolac, respectively.

In 2011, some 111,205,085 cubic metres of overburden were removed, in the MB Kolubara 71.67 million and in the OCMs Kostolac 39.54 million. These are record amounts in both subsidiaries.

Production results in both subsidiaries were achieved without any major capital investments. Proper work organisation and commitment of all the EPS mining sector employees were the main drivers of this historic success.

* From 1999, Electric Power Industry of Serbia does not operate its Kosovo and Metohija capacities. Serbian coal reserves are some 20 billion tons, out of which 14 billion tons are located at Kosovo and Metohija, 3 billion tons in Kolubara and some 1.5 billion tons in Kostolac.

The planned coal quality management process automation targeted at quality standardisation of coal supplied to thermal power plants is one of the most important projects currently running in the Electric Power Industry of Serbia. The coal quality management system should provide satisfactory coal quality supplied to thermal power plants, with simultaneous mining of coal from the deposit sections which could not be used by thermal power plants without this technology.

Balance coal reserves in both of the coal basins provide secure production to cover thermal power plant needs for the next 50 years. The current installed capacities are sufficient for continuous thermal power plant operation under the planned scope. Given that the majority of open cast mines have been mined out, while other currently active ones will be mined out in the near future, new replacement open cast mines should be opened in the forthcoming period.

Coal mining in the Kolubara Coal Basin is carried out in relatively densely populated areas, containing arable land, roads and aquatic bodies. This largely influences the speed and price of the expropriation process. In the Kostolac Coal Basin there is mainly arable land and a well-known archaeological site – Viminatium.

Long-term issues of the MB Kolubara subsidiary include expropriation, cemetery and Vreoci village relocation. These issues have rendered coal mining impossible in this area, whereby overburden removal and mining of the top of the Field E coal seam in contact with Field D have been initiated. Coal mining commenced in the late 2009 and it was aimed at resolving the issues resulting from the Vreoci village relocation delays.

MB Kolubara	TPPs-OCMs Kostolac
Coal share in the electricity generation in thermal power plants	
55.20%	17.60%
Share in the lignite production	
77.10%	22.90%
Plan realization	
105%	122%
15 days before the year-end	57 days before the year-end

Overburden removal at the MB Kolubara was accompanied by the expropriation issues, low ground bearing capacity and difficult operation in the eastern dump site of Field D. This zone was at one time excavated by four out of six ECS systems. Consequently, conditions were created to open the future Field E open cast mine, which will be the largest and the deepest open cast mine of the Electric Power Industry of Serbia.

Moreover, expropriation issues were present on all EPS open cast mines, resulting in the reduced overburden removal compared to the realistically possible. Assisted by the state authorities, EPS managed to find solutions enabling future continuous operation and development of open cast mining in the forthcoming period.

Mine Investments

MB Kolubara

Although commenced in the late nineties, cemetery and Vreoci village relocation is only lately coming to an end. In the past two years, 90 percent of the households accepted direct expropriation or advance payments for resettlement purposes. Some 80 percent of graves have been relocated. This project should be finalised by 2015.

Public tendering for the new bucket wheel excavator for the Tamnava – West Field was carried out. This should maintain the current production level at the Tamnava – West Field, together with the production increase in the near future. According to plans, the contract will be signed in early 2012.

One of the largest investment activities in 2011 involved negotiations with EBRD and KfW to provide funds for the EPS Kolubara Environmental Improvement Project. Implementation is foreseen for the following year (including the procurement of an ECS system, homogenisation equipment and an interburden spreader). At the Tamnava – West Field one self-propelled conveyer system was commissioned while two bucket wheel excavators working on coal were upgraded.

OCMs Kostolac

Mine dewatering activities were continued at the Drmno Open Cast Mine – OCMs Kostolac (the new LC XII well line development was finalised, while LC XIII line development has been started). The second drive station development was completed together with the total B= 2,000 mm route.

The share of environmental investments in 2011 was considerable, i.e. water and heat supply of the surrounding settlements affected by mining operations and thermal power plant operation.



Power Plants

Generation of the EPS in the year 2011 will be written by golden letters in the history of Serbian electric power industry. With capacities managed by EPS has been produced 36,050 GWh, achieving nearly its maximum generation from the year 2009 of 36,112 GWh. This generation output is much more important since hydropower power plants have generated 1,310 GWh less electricity than planned due to more than one month of drought in 2011.

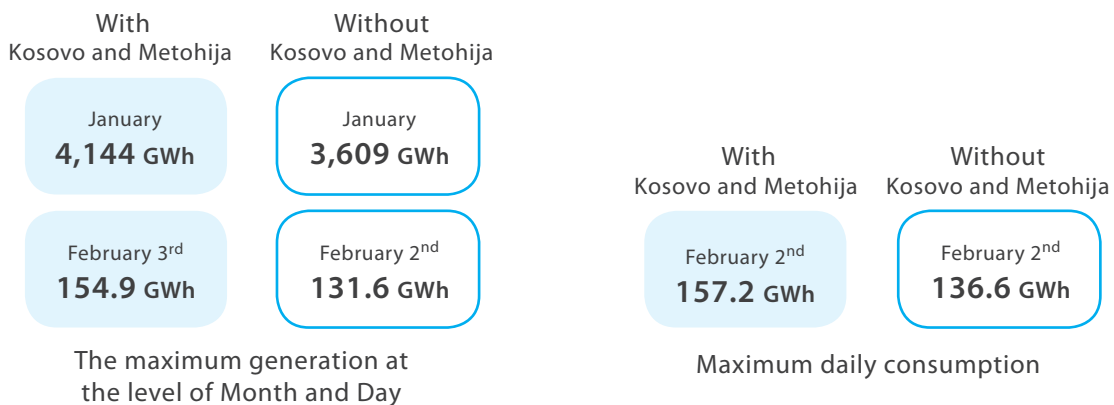
Generation of EPS with Kosovo and Metohija power plants was in the year 2011 the 41,284 GWh, which is for 0.8 percent more than in 2010.

Production of EPS in the year 2011 (GWh)				
Territory	Electricity Generation	Thermal Power Plants	CHP	Hydro Power Plants
Without Kosovo and Metohija	36,050	26,462	408	9,180
Kosovo and Metohija	5,234	5,234	-	-
TOTAL	41,284	31,696	408	9,180

Capacities that have achieved record results are in operation for 25 to 30 or even more years. Investments in them during the last decade have been improved power of machines and increased reliability and efficiency of operations. It turned out that these investments has been worth. In the year 2011, too, that will be remembered by an unprecedented drought for the last 40 years, EPS has proven to be a reliable producer and supplier of electricity.

Although hydropower power plants have not met the annual generating schedule, the total electricity production of EPS without Kosovo and Metohija power plants and small hydro power plants, compared with the year 2010 has been increased by 211 GWh.

The most difficult period of plants' operation in 2011 was from November 17 to November 24. November was colder than average and in this period, run-of-the-river plants were realizing minimal generation due to minimal inflows. Even though Panonske CHPs were operating with maximum capacity, this was the period of the greatest electricity deficit.



Thermal Power Plants

Unprecedented drought in the year 2011, as well consumers' demand has made it possible for the power plant of Electric Power Industry of Serbia to show in the best light.

With a generation of 31,696 GWh of electricity, coal-fired thermal power plants have participated in the total production of EPS with 76.8 percent.

It was the largest achieved lignite-fired thermal power plants production since the year 1990. It is greater than the scheduled by 6.4 percent (1,917 GWh), and compared to the previous year by 12.1 percent (3,411 GWh).

Units of subsidiaries TENT and TPP Kostolac have generated 26,462 GWh, which is more than planned for 8.9 percent. This production is equivalent to the continuous operation of 855 MW units, without any delay, installed capacity throughout the year. This is further evidence that the investment in thermal capacities were worthwhile. These results are confirmation for well performed overhauls and full devotion of employees.

Both subsidiaries have individually achieved their maximum production: TENT 20,205 GWh and TPP Kostolac 6,257 GWh.

During the year 2011 in TENT and TPP Kostolac has been systematized 69 maximum of these companies, power plants and units on the yearly, quarterly, monthly and daily levels.

All the parameters defining the availability and efficiency of thermal power plants operation are the best since the year 1995. Units of TENT and TPP Kostolac spent more time on the grid, because planned outages has lasted less than in 2010, and unplanned downtime has been reduced, too. During the operation on the grid the units have achieved the largest power and reached the maximum capacity utilization.

Compared to 2010:

- Coefficient of **planned downtime** is lower for 2.1 percent, and in 2011 is **14.9** percent;
- **Reliability** coefficient is higher by 2.2 percent, and in 2011 is **95.4** percent;
- The equivalent ratio of **forced downtime** is **7.8** percent, and is the lowest since the year 1994.





Railway Transport

Railway transport of TENT for power plants of this subsidiary needs has transported 29.4 million tons of coal, which is more than scheduled by 5.3 percent. It is a record of coal transportation.

For maximum output of TENT units maximum 30.1 million tons of coal have been consumed. Coal consumption exceeded coal supply by 641 thousand tons, i.e. by 2.2 percent.



Thermal Power Plants

Generation of nearly 408 GWh of electricity by thermal-heating power plants has met the plan with 234.2 percent. In comparison to the year 2010, achieved generation has been exceeded by 83.3 percent. Considering the fact that TPP - CHP use expensive fuel (gas and fuel oil), generated kilowatt-hour in them is much more expensive in comparison to other production capacity. The engagement of these units says about the severity of the energy situation, but also about their importance in critical moments. It has been seen especially in November, when the subsidiary CHPs Panonske has generated 35 percent of its total annual production.

Hydro Power Plants



Hydro power plants (without small HPPs), with generated 9,145 GWh, in the total generation of EPS has been participated for so far the lowest 22.2 percent. Achieved generation was lower than planned by 12.6 percent (1,310 GWh), and from the production in the year 2010 even for 26.4 percent (3,274 GWh).

In the year 2011, only during the first seven weeks, inflows were higher than average and during two weeks in mid-August at the average level, only on the Danube River. Most of the time was with some rainfall and have the drought feature. Minimal inflows were in the first decade of December - on the Danube 1,800 cubic meters per second, and on the Drina River 50 cubic meters per second.

The largest deviations from the schedule were in November and December, when the average daily production was lower by 18.6 GWh in December and 16.7 GWh in November.

The efficiency and volume of actual production of power plants, in addition to reduced inflows, has been effected revitalization of aggregates at HPP Bajina Bašta and HPP Đerdap 1. In respect to the previous year, hydro power plants of EPS have been less engaged, operating with lower power and it has reduced the rate of capacity utilization. Time for scheduled and unplanned downtimes has been increased. It has increased operating readiness.

Power Plant Revitalization, Reconstruction and Maintenance

Electricity generation in 2011 was larger than planned due to, among other measures, both energy efficiency and safe operation of capacities which technical condition was at the higher level than it was during previous years. All planned works are realized within maintenance, revitalization and modernization. Their number and quality are in accordance with the requirements.

In 2011 the major overhaul of Unit 3 in TPP Koluvara A, revitalization of aggregate 6 in HPP Đerdap 1, unit 2 in HPP Bajina Bašta were completed, as well as the first phase of the revitalization of unit 2 in TPP Kostolac B. In CHP Zrenjanin the capacity of 82 MW on the reconstructed and modernized turbine was confirmed by the guarantee testing.

Except the overhauls in TPP and CHP, overhauls were performed at the heating systems for the cities, so during the winter, thermal energy was continuously supplied (from TPP Nikola Tesla for Obrenovac, from TPP Kostolac A for Požarevac, from CHPs Panonske for Novi Sad, Zrenjanin and Sremska Mitrovica and from HP Vreoci for the heating of Lazarevac).

Schedule for hydro and thermal capacities overhauls, as well as the increased coal production enabled the realization of periodical "surpluses" in electricity generation during summer period, which were sold at the free market. This increased EPS revenue necessary for the electricity procurement in winter period.

During winter period PE EPS power plants achieved satisfactory level of reliability and there were periodical interruptions in thermal units due to defects on the boiler pipe systems and technological protections impacts, and in hydro power plants due to deposit removals and small difficulties on the regu-

lation bodies. Preventive maintenance and emergency works were performed in some power plant facilities during their operation, which requested reduction in facility capacity with the specific conditions in which the works were performed.

At the end of the year, production capacities of power plants were ready for operation and engaged according to the demands of electric energy system and hydrologic conditions, except unit 4 in TPP Kolubara A (out of operation since November 2009), aggregate 4 in HPP Đerdap 1 and aggregate 3 in HPP Bajina Bašta, where the revitalization of equipment is being performed.

HPP Đerdap 1, Aggregate 4

Revitalization of aggregate 5 was planned for 2011, but instead the revitalization of aggregate 4 was performed, due to equipment and exploitation conditions. Revitalization began in July and it was planned that it should last 12 months. But, because the delivery of turbine equipment was delayed (hub and blades of another turbine runner with working mechanisms), the deadline for revitalization completion was extended for five months.

After the first repair phase, the dismantled equipment was ready to be sent to Russia for final processing and final examination. Repair and injection works were performed in counterflow parts of the spiral, on the spiral casing and inlet. Repair works were completed on the main generator rotor hub. Formation of main generator stator and repair works on the hub of runner and inner part of thrust bearing are in the final stage.

New 420/210/210 MVA unit transformer was delivered in December 2011.

HPP Đerdap 1, Aggregate 6

Revitalization of aggregate 6 that began in September 2009 was completed in June 2011. With the



experts from Russia and Electrical Engineering Institute Nikola Tesla, new oil and electrical installations were tested and turbine regulator was adjusted. Aggregate is in operation with the increased nominal capacity. Equipment was checked and examined after the guarantee period.

HPP Đerdap 2, Aggregates 9 and 10

Regular major overhaul of both aggregates lasted three and a half months, and overhaul time overlap was used to reconstruct the hydraulic plant of BPZ on aggregates. Generator contact rings surfaces were in bad condition and therefore a special machine, which was installed in the capsule, was used in order to process the rotor of aggregate.

HPP Bajina Bašta, Aggregate 1

Due to equipment testing during the guarantee period and removal of defects, as well as for standard check of runner after 8,000 operating hours, overhaul of aggregate 1 lasted 45 days during September and October. During the complete outage of HPP BajinaBašta the bus bars replacement was performed in 220 kV switch yard.

HPP Bajina Bašta, Agregate 2

Revitalization of aggregate 2 started in November 2010 and it was finished in September 2011. With the new runner, aggregate capacity was increased from 92 to 150 MW. Audit was performed on building structures, overhaul of electro-mechanical equipment of aggregate and auxiliary equipment (cranes, drainage and water systems).

HPP Bajina Bašta, Agregate 3

Revitalization of aggregate 3 started in November 2011 and it was planned to last 11 months. Generator rotor poles were transported to ATB "Sever" for repair, and dismantled turbine shaft, cover, guide vanes and runner to Germany. Edges of generator stator were jointed in the circle. Tariff unit shall be constructed in ABS "Minel transformer".

TPP Nikola Tesla, Unit 4

During the overhaul of 65 days, in addition to standard works, all six mills were reconstructed in order to increase the capacity and quality of coal grinding. Reconstruction of fire protection on 4AT unit transformer and on 4BT transformer with its own consumption was performed.



TPP Nikola Tesla, Unit 6

On unit 6 in TENT A, in early February, the tests were performed and the unit was in operation with increased capacity of 348 MW, with temporary connection at 220 kV through the spare unit transformer.

Original transformer was installed at the end of March, after repair, so designed connection was realized with 400 kV switch yard.

TPP Nikola Tesla, Unit 2

Major overhaul of unit 2 in TENT B with the reconstruction of electrostatic precipitator was extended to 120 days due to the amount of works and deadlines for the delivery of equipment for new electrostatic precipitator. Pneumatic system for ash transportation was partially reconstructed. All pipes in condenser in TLP, as well as the blades at the turbo-pump turbine were replaced. The inspection of the generator with the rotor disassembling was performed. Management system with PLC on the coal supply has been modernized.



Railway Transport

All 110 FBD carriages Arbel, as well as the 12 carriages for transportation needs in TPP Kolubara A were repaired. Machine regulation of railway tracks and railway switches was performed as well as the complete replacement of rails at the railroad Brgule-Tamnava and at Stubline-Vorbis part of the railroad. Major repair of four locomotives, class 441 was performed. Wagon thawing station overhaul was performed at the stations Obrenovac and Vorbis.

TPP Kolubara A, Unit 1

Cross-cut of spoils at generator stator extended the plan deadline during the testing period, so the overhaul lasted 70 days. Parts of stator spoils were replaced and electric tests were performed.

TPP Morava, Unit 1

Major overhaul of the unit started in September and it was completed in December, 2011. Due to delays in the process of blades replacement of rotor in TLP,

overhaul duration time was extended. Drum was tested and repaired. Except the works on the boiler pipe system, major overhaul of the feeding pump number 2 was performed as well as the re-wedging of generator stator. At the end of the year, there was a downtime at the unit due to the balancing of turbo-aggregate. After that, during the winter period, its operation was stable.

TPP Kostolac A, Unit 2

Major overhaul of unit 2 started in June and it was completed at the end of September, 2011. New equipment was installed on the rotating air heaters, and the part of boiler pipe system and feeding water pipe line was replaced. Collecting funnels on electrostatic precipitator were reconstructed. Turbine major overhaul was performed. Damaged blades on the last 23rd line were replaced on the rotor in TMP and one blade was replaced on the rotor in TLP, so the rotor in thermal power plant was balanced. Works on generator were performed and the equipment of 110 kV generator field has been modernized.

TPP Kostolac B, Unit 2

Unit overhaul – reconstruction and modernization, that began at the end of May, 2010, were completed in mid-February 2011. During the operation, unit reached 348 MW overload. Due to the long procedure of public procurement and deadlines for delivery of some equipment for the boiler, works on the boiler were divided into two phases. Second revitalization phase is postponed for 2012.

During the first phase, cold plate of rotating air heater was replaced and new sealing was installed, and steam air heater and economizer pipes were replaced. The overhaul of TMP and TLP was

performed in factory with installment of blades. Generator was installed after the installment of rotor which was on the overhaul in factory with coil repair and balancing. New stations for sealing oil, water cooling of stator coils and gases were installed.

The overhaul in factory of power consumption transformer and generator excitation was performed and new switch for generator has been installed. The excitation is adapted and 6 kV and 0.4 kV switch yards and devices for secured supply have been modernized.

CHP Novi Sad, Units 1 and 2

Overhauls were performed according to the balance. On the unit 1, control system on the boiler K1 has been modernized and gas installation on K1 and K2 was reconstructed. Regulation turbine valve no. 2 on unit 2 was repaired.



Regular overhaul of all facilities in CHPs Panonske enabled the successful operation in winter period of both electricity generation plants and heat and auxiliary steam production plants. CHPs operated without interruptions, according to the needs of demand area and heating system of the cities.



Distribution Companies

Significant results have been achieved in collection and reduction of losses in distribution sector of Electric Power Industry of Serbia. In this respect 2011 was the most successful in the last five years. The main objectives of EPS business policy are to have higher collection and less energy losses, because that is the only way for the company as a whole to make profit.

The level of operational readiness has been increased as well.

Collection

Electricity collection was higher than the planned for 2.59 percent and was 96.59 percent of invoiced realization. That was achieved in extremely difficult financial conditions in the country, characterized by the illiquidity of large electricity customers, low solvency level of households and financial indiscipline.

This high collection rate could not be achieved without the extraordinary efforts of distribution companies, their coordinated and systematic work, as well as undertaking of a series of measures.

Despite the hard work of distribution companies, total debt of electricity customers is not being reduced. At the end of the last year it was about 80 billion dinars.

Collection Rate	
Subsidiary	%
Elektrosrbija	99.21
Elektrovojvodina	97.59
Jugoistok	95.41
Elektrodistribucija Beograd	94.73
ED Centar	93.79

Losses Reduction

The trend of losses increase from the previous four years has been stopped. Electricity losses in distribution part of energy system in 2011 were 14.31 percent, which represents reduction compared to the previous year.

Losses reduction in the amount of 0.8 percent, compared to 2010, represents the value of ten million euros annually, which increased EPS revenue. Nevertheless, with the current level of losses, EPS loses about one hundred million euros annually, not only because of illegal electricity consumption, but also technical energy losses in distribution, consumption that was not measured and obsolete meters.

The reduction of the level of losses in the previous year therefore represented more significant result because it was achieved by the work of wiremen that were engaged for other jobs as well. If the additional engagement of wiremen only for those jobs had been possible, the results would have been even better.

Distribution companies still do not have adequate support of competent state authorities in sanctioning the illegal electricity consumption and the disconnection of large debtors from the network.

Last year about 570,000 controls were conducted and 10,204 illegal electricity consumption were discovered.



Intensive control of customers for the purpose of discovering irregularities in metering and recording electricity consumption and various forms of misuse, as well as the replacement of meters for the purpose of improving the overall condition of metering infrastructure and maintaining calibration cycle are regular activities performed in all distribution companies.

Relocation of metering points to the border of a property or public area, as well as better organization in reading consumed electricity in order to reduce the number of customers whose meters were not read, also contributed to better results of distribution companies. More than 170,000 meters were replaced and about 8,500 metering points were relocated.

It is expected that the activities undertaken to reduce non-technical losses and more intensive investment activity, which aims at reducing technical losses, shall bring the desired result, which is the reduction of losses to the acceptable level.

During 2011 the implementation of the project for modernization of metering infrastructure which creates presumptions for the establishment of "smart grid" concept was continued. Implementation of this project shall additionally reduce electricity losses.

Security of Customer Supply

Maintenance plans were mostly achieved in all distribution subsidiaries, at all voltage levels, and network elements which could cause the reduction of supply reliability were identified.

During last year there were more low voltage maintenance works than in the previous years. Four billion dinars were invested in these works. Having in mind that distribution companies had 3.36 billion dinars at their disposal, it is increased by 19 percent.

As the result of well implemented maintenance plans, as well as efficient engagement of the employees of distribution subsidiaries, even with the increased number of failures, the average time necessary for their repair was reduced (from 108 to 86 minutes).

In the upcoming period distribution subsidiaries should take over 110/ x kV substations from PE Elektromreže Srbije, as well as all metering points from customers.

Customer Relations Improvement

An important segment of business operation of Electric Power Industry of Serbia is customer relations improvement, which gained additional significance with the adoption of Law on Consumer Protection.

Direct communication with customers is achieved, through distribution subsidiaries, as well as Sector for Trading and Relations with Tariff Customers in Electricity Distribution Department.

This sector was addressed by 152 customers from the category of "households" and 22 customers from the category of enterprise customers during 2011, which mostly had objections to calculation of consumed electricity.

As the largest number of complaints and requests was about debt for electricity consumed by vulnerable customers, special attention in this sector is paid to cooperation with the Ministry of Labour, Employment and Social Policy regarding the protection of such electricity customers.

Better quality relations with customers are established by giving easements in the form of discount to the customers who regularly settle their payments for consumed electricity, social categories and rational costumers.

Further promotion and improvement of customer relations implies the continuity of education and professionalization of employees, in order to fully meet the demands of customers regarding the electricity supply, calculation and efficient collection.



Small Hydro Power Plant

Thirteen small hydro power plants of total installed capacity of 19.8 MVA that are owned by EPS are working. Six of them are connected to distribution system of Elektrosrbija distribution subsidiary, and seven to Jugoistok distribution subsidiary.

During 2011 small hydro power plants generated 34,651 MWh of electricity, which is 33 percent less than for the same period of the previous year, and 26 percent less than the planned level. Two out of 13 small hydro power plants, Moravica and Podgradom, had no generation in 2011, while SHPP Turica exceeded generation compared to 2010 for 31.9 percent.

The reason for the reduced electricity generation in small HPPs was bad hydrological situation during 2011.



Distribution Activity Restructuring

In accordance with the Energy Law and regulations of Energy Agency and European Union, Electric Power Industry of Serbia started the activities for creating internal and regional market. A number of those activities refer to unbundling of retail trading of electricity from electricity distribution.

With this unbundling the activity of EPS shall be divided into the field of regulated price and defined general interest of public supplier (distribution system operators - DSO) and the field which is oriented towards the customers at open market. Tariff customers are in the first group, and the price for this category, which includes 60 percent of the small costumers, shall remain in the competency of regulatory agency. Remaining 40 percent of the production portfolio of PE EPS shall be oriented towards eligible customers, that is, large costumers, which will be supplied at the market from 2013, thus the price for them shall be formed in accordance with the market circumstances.

During 2011, activities for forming internal market started, and its deadline is October 1st 2012.

Distribution companies shall be formed as distribution system operators (DSO). Those parts of distribution companies that were in charge of trading, that is, tariff customers supply, shall become Public Suppliers (PS). The Government of the Republic of Serbia should appoint one or more public suppliers by the October 1st 2012, as well as decide whether separate subsidiary, public supplier shall be formed, or those will be separate units in existing distribution companies.

Strategy and Investments

Basic strategic and investment activities of the Electric Power Industry of Serbia during 2011 included the continuation of the initiated investment projects from the previous period. In addition, significant activities involve the preparation of the necessary documentation and examining possibilities to create conditions to commence the construction of the new generation capacities with the foreign partners under the strategic partnership model.

Strategy and Investments in the Production Sector

The most important projects, studies and activities linked with the scientific and research work, as well as with the drafting of the investment-technical documentation in EPS during 2011 include:

- Prefeasibility Study with the Concept Design for the construction of the new third unit at the Kostolac B TPP site;
- Investment-technical documentation for the construction of an industrial railway between the Kostolac B TPP and the existing railway network;
- Spatial plan of the special purpose area for the Kostolac Coal Basin;
- Preliminary Study analysing the need and technical-economic feasibility of joint renewables and coal combustion in EPS thermal power plants;
- Prefeasibility Study with the Concept Design for the construction of the limestone river transport capacities, from the Jelenska Stena Quarry near Golubac to the Kostolac B TPP, including the equipment, ash and gypsum transport facilities;
- Technical-economic analysis of the Nikola Tesla TPP A1 and A2 units operation under the heating regime for the town of Obrenovac heating, suggesting optimal operation regime;
- Detailed Architectural-Construction Design for the Zvornik HPP reconstruction including the annexing;
- Feasibility Study with the Preliminary Design for the Potpec HPP generator sets' reconstruction together with the ancillary equipment;
- Bistrica PSHPP construction feasibility analysis;
- Feasibility Studies with the Preliminary Designs for the Ibar River hydropower plants from Raska to Kraljevo – system parts of the preliminary designs;
- Wind potential examination in Kostolac.

During 2011 EPS invested RSD **24.5** billion, as follows:

- own funds **22.6**
- loans **0.3**
- consumer funds **1.5**
- donations **0.05**



Investments with Foreign Partners

Principal target of the Electric Power Industry of Serbia business policy for 2011 was to stimulate foreign investments enabling the implementation of capital projects, including direct foreign investments providing the incorporation of companies. To this end, activities aimed at establishing different forms of business cooperation with the foreign partners were conducted, especially for:

- Selection and attracting of foreign partners for the thermal power plants firing the Kolubara Coal Basin coal (Kolubara B TPP, 2 x 375 MW and Nikola Tesla B3 TPP, 740 MW);
- Selection and attracting the strategic partner to reconstruct or construct a new gas-steam plant at the CHPP Novi Sad;
- Gornja Drina HPP construction with the Republic of Srpska partners;
- Implementation of investment projects with the Seci Energia S.p.A. from Italy;
- Implementation of investment projects with the German company RWE.

Kolubara B TPP Project

Italian energy company Edison S.p.A. in May 2011 submitted the proposal for the construction of thermal power plant Kolubara B, as the potential strategic partner of EPS.

After examining and evaluating the technical and financial parts of the offer, EPS decided to accept the submitted offer and continue the project development activities. Edison S.p.A. proposed to optimise the technical solution by installing Alstom equipment and to construct two units, 375 MW gross capacity each, 37 percent net efficiency, while equipment should also meet the strictest environmental criteria stipulated by the domestic and EU regulations.

Works carried out in 1988, when the construction of this power plant began, and equipment supplied and installed so far will represent EPS contribution in the joint company building the new power plant. EPS was offered a minimum share of 36.4 percent in the new company.

On the basis of the Preliminary Cooperation Agreement signed between the Electric Power Industry of Serbia and Edison S.p.A., examination of economic and technical issues was initiated.

This project will represent the first significant private investment into the Serbian electricity sector. It will lay a foundation both for further private energy sector investments and the future private capital engagement in the Serbian public infrastructure.

Nikola Tesla B3 TPP Project

A Cooperation Protocol was signed between EPS and the Chinese companies “Shenzhen Energy Group Co. Ltd.” and “China Environmental Energy Holdings Co. Ltd.” in October 2011. It defines the scope of cooperation involving the implementation of the significant thermal power projects in Serbia – Nikola Tesla B3 TPP, including investments into the Radljevo open cast mine.

A Feasibility Study will be drafted in accordance with the Serbian regulations, while its implementation will be financed by the Protocol signatories, based on the 50-50 percent principle. Following the Study development and positive business decisions, EPS and the Consortium of Chinese companies will jointly assess the Nikola Tesla B3 TPP project implementation feasibility, including the Radljevo OCM investments. The companies will subsequently establish the conditions and implementation method for the Nikola Tesla B3 TPP, including the incorporation of a joint company and harmonisation of the long-term electricity sale agreement, not longer than the period stipulated by the Serbian regulations.

The Protocol signatories have agreed to employ as much as possible the local labour, suppliers and contractors on the designing, construction, operation and maintenance.

Novi Sad CHPP Project

Electric Power Industry of Serbia and the city of Novi Sad in July 2009 incorporated a joint company – Combined Electricity and Heat Generation Company Energija Novi Sad a.d. Novi Sad. The new company will reconstruct the existing and/or construct a new gas-steam plant at the Novi Sad CHPP site. Energija Novi Sad extended the tender submission period upon the request of the tenderers, whereas the tendering procedure was finalised in early December 2011. By early December, the new deadline, one tender was received from the consortium of three companies coming from Russia, Slovakia and Greece.

Gornja Drina HPP Project

Representatives of the Electric Power Industry of Serbia and the Mixed Holding Elektroprivreda Republike Srpske opted for the joint construction of the Gornja Drina HPP to improve their cooperation. During 2011, the Buk Bjela and Foca HPPs preliminary designs were drafted (upper Drina River hydropower plants), while the Sutjeska and Paunci HPPs preliminary designs drafting is in progress.

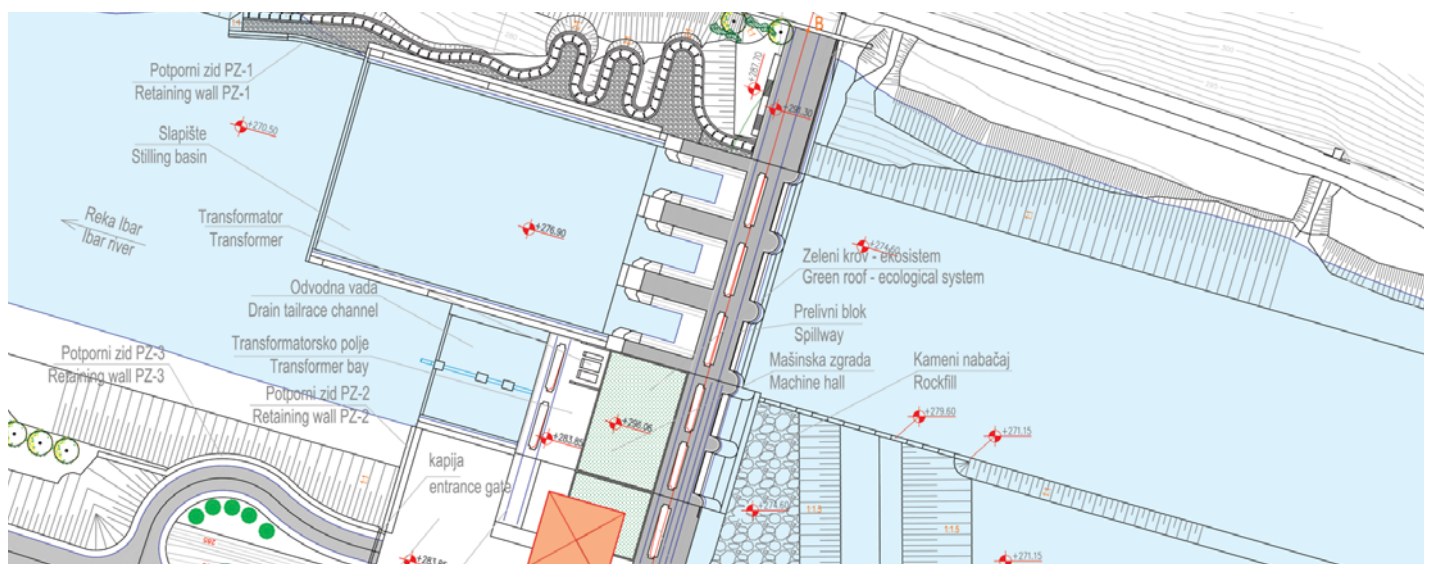


Cooperation with Seci Energia S.p.A.

Intergovernmental agreements signed between the Serbian and Italian Governments anticipate the joint development of hydropower projects on the Ibar River, Kupinovo HPP on the Sava River and hydropower plants along the upper Drina River sections, between the Bajina Bašta HPP and the Zvornik HPP (on these projects EPS has already established cooperation with the "Elektroprivreda Republike Srpske") by the Electric Energy Power Industry of Serbia and the Italian company Seci S.p.A. When it comes to the Ibar River hydro potential utilisation, Prefeasibility Studies with Preliminary Designs development activities for the Ibar River hydropower plants from Raska to Kraljevo have been executed. Field investigations were also completed, as well as the drafts of the preliminary designs' system parts (adoption of the basic technical parameters for all ten cascade hydropower plants). In addition, the Dobre Strane and Bela Glava HPPs preliminary designs have also been initiated.

Cooperation with RWE

Memorandum of Cooperation between EPS and the German company RWE signed in November 2009 foresees the cooperation on the following construction projects: Đerdap 3 PSHPP, Velika Morava River HPPs and upper Drina River HPPs (in cooperation with the "Elektroprivreda Republike Srpske"). Designing activities for the Velika Morava HPPs involve revision of the prepared documentation (prefeasibility study with the concept design) by the Republic Audit Committee and collection of the documentation required to draft preliminary designs by the competent state institutions. In addition, activities targeting the collection of the topographic information were also started.



Renewables

Basic investment activities in the field of renewables in EPS during 2011 include the construction of the Prvonek SHPP near Vranje, 860 kW. With the aim to improve the generation mix by further activities, an agreement was reached with EBRD to finance the small hydropower plants construction and revitalisation projects, valued at 45 million euros.

Apart from the development of small hydropower plants, EPS has in the past several years examined the use of other renewables. Consequently, wind potential investigations on the most perspective sites have been continued, together with the development of the investment – technical documentation for the wind farm construction in the Kostolac region. To investigate other possibilities, preliminary agreements were reached with the domestic and foreign partners regarding the joint implementation of electricity generation investigations from other renewables.

Development and Strategic Planning in the Distribution Sector

Considering the reforms and company obligations stipulated by the Energy Law, fast and sustainable distribution sector development became one of the Electric Power Industry of Serbia priorities.

During 2011, several studies have been drafted in the field of strategic planning and development of the EPS distribution sector. Such studies target the power facilities security and reliability increase, capacity increase of existing and construction of new facilities, customer voltage conditions improvement, technical and non-technical losses reduction, along with the maintenance costs, introduction of the advanced network and equipment with reduced losses and auxiliary consumption, together with the introduction and use of environmentally friendly materials. The above studies include:

- 110 kV and 35 kV voltage levels power networks long-term perspective development study within the Elektrosrbija distribution subsidiary area by 2015;
- 110 kV and 35 kV voltage levels power networks long-term perspective development study within the ED Centar distribution subsidiary area by 2025;
- Development of the data base methodology aimed at forecasting the power and energy needs in the course of investment planning in the Serbian distribution subsidiaries under uncertain electricity and other energy sources price levels;
- Supply quality and reliability monitoring system in distribution networks;
- Power facilities revitalisation studies;
- Study analysing the significance of the non-ionising radiation sources of special interest in PE EPS;

- 110 kV cable sheath temperature measurement and monitoring system;
- Identification of the HV equipment fault criteria by measuring the partial discharges during operation;
- Electromagnetic facilities grounding system state improvement after long-term operation;
- Current measuring transformers accuracy secondary load impact;
- Limitation and protection measures against industrial frequency electromagnetic fields;
- Operating metal oxide surge arresters investigation methods and accuracy criteria;
- Measuring point control on high voltage levels by 35 kV;
- Investigation, control, analysis and assessment of the equipment, devices and installations status at 110 kV/x SS transferred from EMS to EPS.

Investment activities implemented in the EPS distribution companies during 2011 were primarily oriented towards consumer supply security and reliability increase, further distribution network development, control equipment and consumption control equipment upgrades and modernisation, as well as preparation of the measuring equipment, switching cubicles and household connections take over project, together with the information systems and telecommunications networks development activities and environmental protection.

Majority of investment activities, in addition to the construction of new and reconstruction of existing power facilities, involved the preparation of the technical documentation (detailed designs and studies), as well as permitting activities for the construction of new power facilities.

Distribution companies have in 2011 invested more than seven billion dinars: 500 million dinars

on the 110 kV level, 450 million on the 35 kV level and 3.5 billion dinars into the reconstruction of existing and construction of the new 20(10) kV facilities. The remaining funds were invested into meter replacement, system modernisation, environmental protection and continuation of activities commenced in the past.

SMART GRIDS solution and advanced metering infrastructure (AMI) concept development activities were continued, together with the metering data management (MDM) system and power facilities remote control projects and introduction of the modern relay protection automation concepts.



Information – Communication Infrastructure

During 2011, advanced information services implementation within ICT infrastructure and their safety, presented very important activities.

Software infrastructure consolidation includes an active file improvement and migration on “Microsoft Windows Server 2008R2” platform, with centralized IT infrastructure management and monitoring, together with the newest “Forefront Threat Management Gateway” firewall platform.

The great improvement was achieved within the field of IT infrastructure for the needs of business productivity. “Office Share Point Portal” environment now presents standard collaboration platform in PE EPS, on which several very successful IT projects were implemented, such as: electronic records room, quality system documents electronic management and new PE EPS web portal.

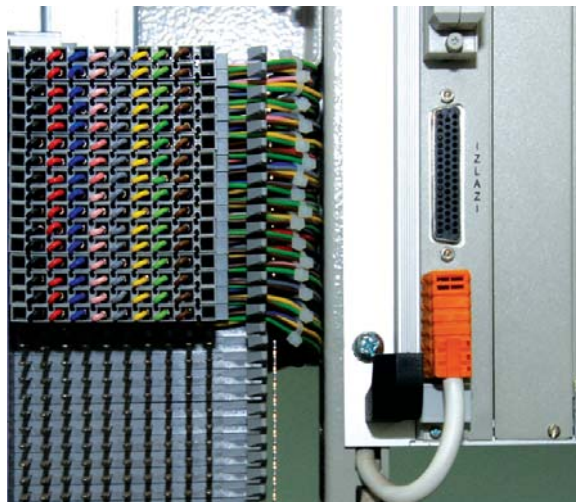
WAN communication network implementation is of great importance for the entire PE EPS system. The Project was in the phase of connecting all subsidiaries within the PE EPS, and business data and necessary services flow through IP/MPLS network.

The implementation of new “Microsoft” technologies and services is also continued within all PE EPS subsidiaries. Solutions from the field of basic IT infrastructure for safety and centralized infrastructure management, as well as solutions from the field of IT infrastructure for the needs of business productivity, for collaboration, for e-mail exchange and use of integrated communications, have been adopted as the standard of integrated communication network of PE EPS.

Information Technologies

Implementation of the business information system migration project with new infrastructure installation, with the most advanced “Oracle” software platform and new base and software transfer to the new environment version, have been started.

Consolidation of “Oracle” data base from the previous versions is performed into the new Oracle base, version “11g R2 Enterprise Edition”, applications transfer and upgrade from the previous versions for execution on “Web Logic Suite server 10.3.0.4”, as well as other auxiliary services transfer and adjustment.



Initial project of the business reporting in PE EPS on the platform “Oracle Business Intelligence Enterprise Edition 11g R2” is completed, and became available to the users. Business areas covered by this project include finances and accounting, business indicators and employees costs in PE EPS, while on PE EPS level business areas are - cumulative balance and plan monitoring, organizational scheme with job classification and human resources.

New Business Building Construction

Back in the late eighties, EDB has begun the construction of its facility at Block 20, in New Belgrade. Substation was constructed back then, 2x40 MVA, which is completely in function.

At the above mentioned location, EDB and PE EPS continued joint construction of business building of PE EPS, which would include, besides integration of business functions, Control and Telecommunication Centers.

Preparatory works, as well as works on security for the neighboring buildings and communications, have been completed in 2011, and started the first phase construction.

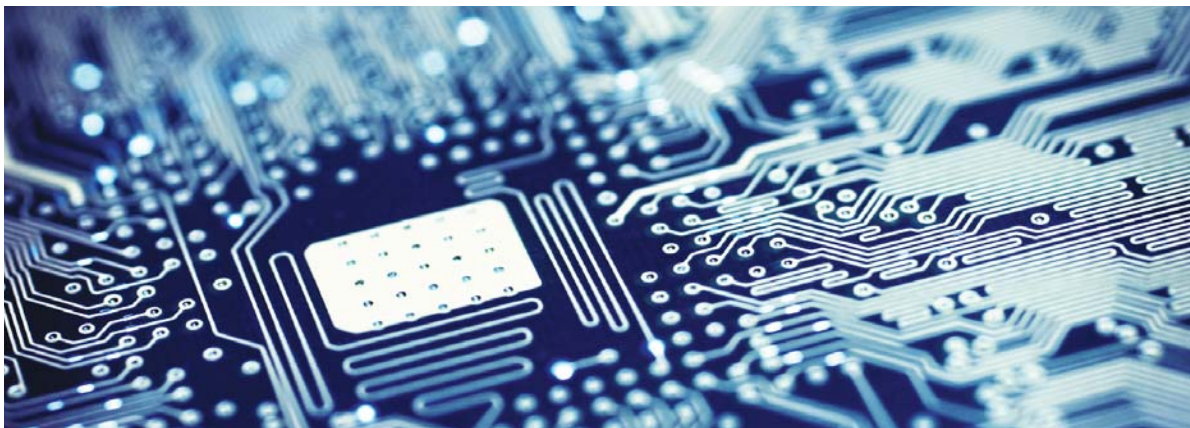
Telecommunications

Construction of the new telecommunication system covering the power utilities' needs in our country, initiated several years ago, is coming to an end. All the designed highways were completed.

Fibre optic cable network is visually beginning to look like the high voltage transmission network. When it comes to the 400 kV and 220 kV transmission lines, earth wires have almost fully been replaced by wires containing fibre optic cables. This type of replacement was also carried out on 100 kV transmission lines and some 35 kV transmission lines.

Fibre optic cables connect all important power facilities in Serbia. Fibre optic network is some 6,000 kilometres long. It mainly contains 48 fibre OPGW cables, 24 fibres of G.652 type and 24 fibres of G.655 type.

Through further development involving regional and lower levels it will surely become the most widely used optical medium in the country, with multiple usage capabilities.



Telecommunication Transmission Network

The new telecommunication transmission network includes some 80 nodes with adequate SDH technology based terminal equipment. These nodes are essential facilities within the power system – all hydro and thermal power plants, regional control centres, 400, 220 and 110 kV substations, distribution companies' headquarters, along with the facilities connecting our power system with the neighbouring countries' systems. The main telecommunications centre is located in the Control Centre.

Main routes' capacities are on the STM-16 level, while interconnections and less important routes are on the STM-4 and STM-1 levels. A 64 kbit/s channel is used to integrate different user interfaces.

SDH network topology is of the so-called 'mesh' type, with SNCP (Sub Network Connection Protection) traffic protection mechanisms protecting traffic based on the point – point principle, i.e. between the SDH network input and output points.

Moreover, SDH network control and supervision systems were introduced based on the flexible multiplexers and synchronisation devices. Control and supervision system is centralised, redundant and characterised by high reliability providing remote control of all network elements, SDH and FMUH devices, as well as synchronisation devices.

IP Telephone Network

The existing IP Technology Based Telephone Network Preliminary Design was updated.

This technology facilitates the introduction of many other services. However, its primary role is to enable telephone traffic inside EPS and EMS companies. New commutation devices were installed on 21 locations (Voice/Access Routers), with IP-TDM telephone exchanges on six locations.

The new telephone network will incorporate all the existing new-type telephone exchanges having adequate network interface enabling their connection to the packet network, along with the old-type exchanges via the E1 Qsig interface or four-wire transmitters with E&M signalling.

Network control and supervision is carried out through two independent systems, i.e. operating and stand-by systems located on two separate sites.

By introducing the IP technology, Electric Power Industry of Serbia became one of the forerunners of this technology in the energy sector.

IP telephony power system implementation project included a high reliability corporate packet network introduction, along with the strict QoS requirements. This created an infrastructure supporting the transmission of a large number of services (power system control data transfer, business data, video conference signals, etc.) enabling a more efficient and rational telecommunication infrastructure usage.



Towards European Integration

Serbia is a part of energy market – of Energy Community of South East Europe – and as such it accepted common applicable rules in the field of energy related to competition, environmental protection, renewable sources and European Union regulations. Electric Power Industry of Serbia has undertaken actual steps in 2011 in order to continue implementing the reforms for European Union accession and the process of European integration.

“White Book of Electric Power Industry of Serbia”

With this strategic document, EPS wanted to show that it is on the way to reach the goals that European Union defined and which should be fulfilled by 2020 in the field of renewable energy sources use. Projects from the field of energy efficiency, electric energy economy, renewable sources, application of advanced technologies with the goal to fight climate changes, as well as the harmonization of our legislation with EU regulations are presented in this Book. The importance of “White Book” is also in the fact that our electric power industry is the leader in the region, which gives such document for insight to professionals and investors.

More than EUR 4 billion worth projects are presented in the Book. That is why it represents an invitation to investors to invest in our projects of renewable sources use and energy efficiency.

“White Book of EPS” is the result of the need for the company to do something that is general trend in EU and in very developed electric energy companies. Book gives clear guidelines for investment in renewable sources sector and in the overall development of energy sector of Serbia and EPS.

After presentation in Belgrade, “White Book” was also presented in Vienna in May 2011, at Investment Conference on Renewable Sources and Fight Against Climate Change, organized by Energy

Community of South East Europe. Representatives of leading European financial institutions participated in the conference as well as the representatives of the largest electric power industries from the region.

“The White Book of EPS” is presented to the officials of European institutions in Brussels, in EU Directorate General for Energy. European Union representatives showed expectations that Serbia and EPS should turn towards energy production from renewable sources, since thus emission of carbon dioxide is reduced and energy efficiency is increased.

Besides, this document is presented to the most important international and European institutions at various conferences, forums and fairs, as well as on meetings with eminent officials. European Commission, Directorate General for Energy, Energy Charter Secretariat and Energy Community of SEE have been introduced with the plans presented in this book.

EPS at International Conventions

Delegation of Electric Power Industry of Serbia presented to the officials of Energy Community Secretariat at the meeting in Vienna plans for improving business operations in the following period. That were, first of all, investment plan of the company, environmental protection plans, energy efficiency and competition improvement at future electricity market. EPS expects to realize those plans with the support of EU and the Secretariat itself.

Electric Power Industry of Serbia was the first company from energy sector that visited Energy Community, which as organization primarily cooperates with the Government of the countries who signed the Energy Community Treaty.

Electric Power Industry of Serbia was also the only energy company from region which presented itself at European Future Energy Forum, held in October in Geneva. Apart from the fair part of the Forum, EPS participated at the panel "Risk vs. reward", where the most important strategic and development projects of the company were presented. Forum in Geneva gathered more than 2,000 officials of European and countries worldwide, representatives of energy companies, equipment production and investors. Philip Lowe Director General, Directorate General for Energy, European Commission Dr Sultan Ahmed Al Jaber, Chief Executive Office, Masdar - Abu Dhabi visited EPS's booth.

At the conference "Investment Potentials in Electric Energy Sector of Serbia" held in Barcelona, the Government and Energy Agency of Spanish province Catalonia and several Spanish companies agreed that they shall jointly participate at the market of renewable energy sources of Serbia. This conference gathered the most influential representatives of energy sector of that part of Spain and EPS delegation represented the most important projects

and future company development guidelines. Special attention is paid to the discussion of the use of renewable energy sources, legal regulations which are in force in Serbia and conditions for the potential investors. Then several Spanish companies were interested in the possibilities of construction of small hydro power plants, wind parks and use of all other types of renewable energy sources in Serbia.

At the International Conference "Energy and Sustainable Development" held in Kragujevac and organized by the Atlantic Council and the Government of the Republic of Serbia, as the central motto of the conference was the growth in the energy consumption in the world it is necessary to turn towards the safer and renewable energy sources. The Balkans, as well as Serbia, becomes very important area regarding the investments in the improvement of efficiency and development of the renewable energy sources. Serbia is one of the most active contractual member of the Energy Community, therefore it has to work on the market opening, protection of the vulnerable consumers categories, as well as on the investments, secure energy supply and energy efficiency.

Serbia is also unique because it is the only country with eight electric energy borders. This makes Serbia very important player in the region, which is the main reason why special attention is paid to the monitoring of energy sector development in Serbia.

Legal Affairs

Corporatization and organizational improvements and changes within EPS group, as well as regulating relations with strategic partners were priorities in the field of legal affairs. They were determined by the plan set forth in the Program of Rationalization and Restructuring of Electric Power Industry of Serbia in 2011.

Improvement of Regulatory Framework Important for EPS

Integral part of the activities related to adoption of new Energy Law was providing professional assistance in preparation of general opinions and concrete proposals and suggestions of Electric Power Industry of Serbia for amendment of legislation.

Objective of the proposal was primarily aiming at regulating relations between the entities carrying out energy activities by the law and clearly defining and separating their position, rights and duties when carrying out energy activities and the manner of operation of the electricity market.

Starting points were EU Directive concerning internal market in electricity and establishment of competition at the market and construction of major generation capacities, with participation of foreign investment capital. Having regard to that context, the proposal not to consider generation of electricity an activity of general interest has been accepted. The new law accepted the suggestion related to method of selection of public supplier and conditions for differentiation of market activities from the activities of general interest.

In public debate procedure on Company Law solutions that would take into account specific characteristics and determine specific rules important for JP EPS and its strategic partners were suggested.

Since provisions of the Law on Public Property have a significant influence on regulating the property of PE EPS and its subsidiaries, substantial remarks and suggestions were given, especially related to

legal rights to the grid as a good of general interest and rights that can be established for PE EPS, i.e. distribution subsidiaries.

Additionally, during public debate on Law on Public-Private Partnership and Concessions the need to clearly regulate obligations, conditions and manner of application of the Law to the selection of strategic partners of PE EPS was pointed out, manner and procedure for regulating relations with them, as well as authorizations and obligations of EPS regarding ownership, legal and property issues.

By giving suggestions for improvement of regulatory framework, on the basis of experience and providing necessary legal assumptions for implementation of development goals, an effort was invested into making indisputable and efficient legal framework for further development of Electric Power Industry of Serbia. First of all, that implies legal framework for necessary investments of potential investors, including necessary institutional and status linking between PE EPS and potential partners, clear definition of property of public enterprise and its subsidiaries, establishing authorizations arising from the ownership title and determining rights, conditions and manner of acquiring, disposal of and use of property.

Corporatization of EPS and Improvement of Work Organization

Priority goal of corporatization of Electric Power Industry of Serbia is improvement of organization of the company work, financial consolidation and making conditions for efficient organizational structure, efficient type of management and governance. Having in mind the abovementioned significant changes of the regulatory framework legal aspects and conditions necessary for corporatization were analyzed and reviewed within the work of consultant's teams in 2011, including necessary change of legal form of PE EPS into joint stock company. That implies change in type of management and governance, as well as solving legal issues that are important for status, ownership rights, authorizations, governance and performance of the activities.

With the assistance of the consultants, there was an active participation in reviewing the relations that can be settled by separate contracts between EPS and its subsidiaries. The aim is to make good legal assumptions for strengthening the planning function, implementation and control of planning tasks, as well as necessary assumptions for centralization of payment so that strategic investment and business decisions can be adequately financed.



Joint Investments with Strategic Partners

In order to attain priority goals of the energy policy of the Republic of Serbia, conditions and principles of establishing complex and diverse relations with potential strategic partners were reviewed.

Having in mind the existence of numerous legal obstacles in the Republic of Serbia and insufficient regulations with respect to method, conditions and manner of selection of foreign – private partner and determining of specific rights, duties and responsibilities of the partner with whom PE EPS intends to have contractual or status relations for implementation of investments, their systematic solving has been initiated.

The most significant projects where we participated in regulating relations with potential strategic partners are:

- Finalization of construction of TPP Kolubara B – legal conditions for implementation of Interim Cooperation Agreement between PE EPS and



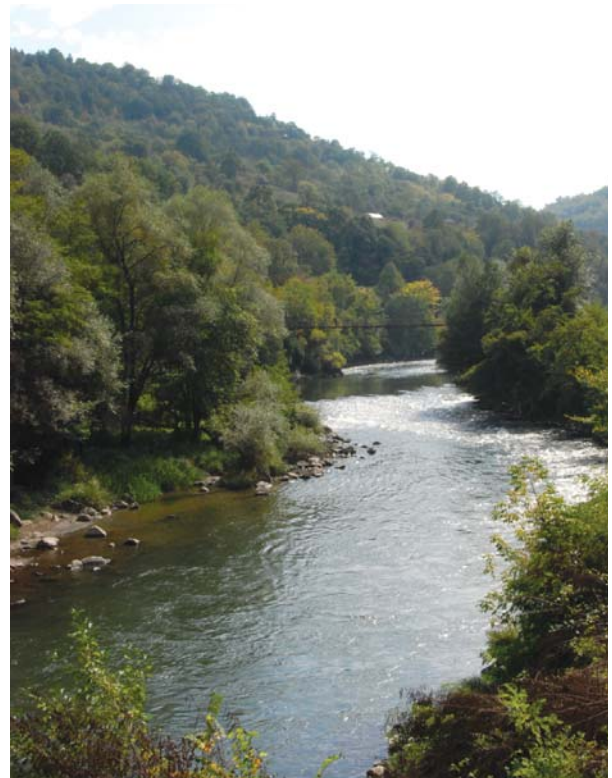
Edison S.p.A, as the only bidder, were taken into account, including Joint Venture Agreement, Articles of Incorporation, Shareholders' Agreement, Power Purchase Agreement and Lignite Sales Agreement, as well as joint construction and exploitation of TPP Kolubara B;

- Construction of new unit in TPP Nikola Tesla B – legal conditions and relations when developing Feasibility Study with Conceptual Design in accordance with the protocol for Consortium consisting of "Shenzhen Energy Group Co. Ltd." and "China Environmental Energy Holdings Co. Ltd."
- Reconstruction of CHPP Novi Sad – preparation of tender documents and legal analysis of the proposal of Consortium consisting of "Metka S.A." from Greece, GGE from Slovakia and "CJSC Optima Energostroy" from Russian Federation, especially regarding Joint Venture Agreement and Power and Heat Purchase Agreement;
- Operation of Company Ibarske hidroelektrane – during 2011 activities related to start of operation of the Company Ibarske hidroelektrane Ltd. whose founder are PE EPS and Seci Enerģia



S.p.A. has started. There was an active participation in resolving fundamental issues of enabling the company to work, making conditions for preparation of necessary planning and technical documents and other conditions for planned construction of hydro power plants and especially legal assistance and support necessary for operation of the bodies of company.

- Incorporation and start of operation of the Company Moravske hidroelektrane – active participation in negotiations with RWE representatives on harmonization of concept for incorporation of joint company and harmonization of basic constitutional acts and making necessary legal assumptions for incorporation and start of operation of the Company and its bodies.
- Hydro Power Plants Project Middle Drina – activities with potential partner have been undertaken for implementation of this project from Republika Srpska and Italian partner Seci Energia S.p.A. When implementing the project we participated in signing initial agreements and analysis of necessary elements for investment of capital for construction of hydro power plants and incorporation of one or more subsidiaries in accordance with the laws of Republika Srpska and/or Republic of Serbia, depending on the seat of subsidiaries and the place of performance of the activities.



Internal Audit and Business System Control Function



Control and monitoring function in Electric Power Industry of Serbia was established on January 1, 1992, within than existing Control and Monitoring Center of PE EPS. This function was renamed into Business System Internal Audit Sector in December 2007, and Internal Audit and Business System Control was organized on July 15, 2011. By introducing this function and putting it at the top of the company, Electric Power Industry of Serbia confirmed its preference towards ethical and transparent business operation.

The tasks of this newly established function arise from the strictly defined procedures which promote aspects of ethical business operation within the company, such as: transparency, professionalism, social responsibility, anti-corruption business operation, depolitization, best practices implementation, and timely and truthful reporting to competent authorities and the public.

The aim of introducing the function is the company operation improvement and preventive action through identifying business operation risks and adopting the best procedures. The most common

identified risks in Electric Power Industry of Serbia are public procurements, network losses and electricity collection, trading and import of electricity, connections to grid, investment maintenance, performance of works, coal production and sale, criteria for production plan realization (reasons for exceeding or underachieving), protection and safeguarding of assets. Eighty risks have been identified in EPS so far.

Overall activities of internal audit function should contribute to the improvement of company's business operation, profit increase, and therefore increase of the value of the company as well.

The function monitors all aspects of business operation, in all subsidiaries within the company, as well as in the corporate functions at EPS level and departments and independent sector within PE EPS.

It is functionally and organizationally independent. Functional independency entails: independent planning, conducting and reporting about performed internal audits. Organizational independency is established compared to all other organizational parts which are the subject of audit.

Manager of the function and internal auditors are independent in their work and no other functions and activities can be assigned to them, except internal audit and business system control activities. Manager of the function is directly responsible to the General Manager of PE EPS.

Three sectors are formed within the function:

1. Business System Internal Audit Sector is in charge of:

- Conducting basic audit which determines whether the records and assets of organization are completely supported by evidence and in accordance with all relevant laws and regulations;
- Conducting audit of financial statements and accounting reports which determines whether the financial statements correctly show financial position, results of the activities and cash flow and whether they are prepared in accordance with the generally accepted accounting principles;
- Conducting financial audit which determines whether the financial data are presented in accordance with determined or stated criteria, whether the organization is following actual financial requests, whether the structure of in-



ternal controls (procedures and actions) related to financial reporting and/or saving funds is adequately rationalized and whether it is being conducted adequately and efficiently;

- Conducting audit of contracts which assesses:
 - Adequacy of the regulations that regulate conclusion of the contracts, as well as the measures in which they are respected;
 - Adequacy of the system for managing and controlling contract in all phases of its duration;
 - Whether the data related to managing are timely, correct and whether they satisfy costumers needs;
 - Systems for the control of resources use, including permanently and temporary employees and consultants;
 - The manner for saving funds in all phases of the contract;
 - Procedures for identification of losses caused by misuse, inefficiency, as well as return of losses where possible;
 - Procedures for identifying and preventing criminal actions, corruptions and mistakes.

2. Process Audit Sector revises system and performance of the management by performing following activities:

- Independent assessment of all management processes in PE EPS;
- Assessing Internal Audit System adequacy;
- Identifying internal audit risks, i.e. assessing the measure in which itself contributes to the achievement of organization goals.

3. Technical System Audit Sector performs:

- Independent assessment of technical processes;
- Assessment of technical system internal controls system;
- Technical risks identification;
- Investment plans audit;
- Information system audit.

During 2011, until the moment of the establishment of Internal Audit and Business System Control function, in Business System Internal Audit Sector the following controls have been performed: control of Public Procurement Law application, controls of supplies in accordance with Annual Business Plan, anonymous allegations, as well as the control of metering devices procurement in all distribution companies, by special order by PE EPS General Manager.

Minutes of all performed controls for controlled subsidiaries are made and submitted to EPS General Manager. Upon the expiration of the deadline for complaints and their subsequent considerations, reports were done and submitted, as well as notices on undertaken measures or measures that shall be undertaken in order to remove mistakes.

Business System Internal Audit Sector also made a report on control of the inventory on 30.09.2010 in TENT. Besides that, the same control was performed

on 31.12.2010 in MB Kolubara. The minute was made; it had no comments and therefore the report was done.

Since the establishment of Internal Audit and Business System Control function, the following audits were performed:

- Of application of Public Procurement Law in HPP Đerdap, for the period from January 1 to December 31, 2010;
- Of metering devices (metres) procurement in all distribution companies;
- Of allegations contained in the anonymous report of the group of employees of Kolubara B Project;
- Of conducted public procurement procedure of small value in Kolubara B Project;
- Of systems of public procurement subsystems – second phase of restrictive procedure in Elektrosrbija, ED Užice Branch;
- Of income system, subsystem – income from waste material sale in Drinsko-Limske HPP, HPP Elektromorava Branch;
- Control of inventory of assets and liabilities as of 31.12.2011 in HPP Đerdap and Jugoistok.

Process Audit Sector and Technical System Audit Sector shall start with new employments and operational work during 2012.

Lot of attention was also paid to education of employees for the position of internal auditor in the system of PE EPS.

Ministry of Finance – Central Harmonization Unit - organized training for existing and future auditors, with the subjects from the field of financial management and control. This training is the necessary prerequisite for examination for the authorized internal auditor in public sector, which all internal auditors must pass.



Function of Internal Audit and Business System Control is designed according to the international standards, which stipulate that one auditor is necessary for 900 to 1,500 employees. According to EPS systematization, 32 employees shall be employed for those positions, divided in three sectors – for business system (12 experts), process (ten) and technical system (eight).

Documentation that shall be the base for the work of the Function of Internal Audit and Business System Control is being prepared, i.e.: Internal Audit Charter, which should clearly indicate the role and explain the environment necessary for the effective functioning of the internal audit and increase the company's value, Internal Audit Manual as well as the guidelines for internal auditors.

Human Resources Management Function

Although the modern concept of human resources management has been established in EPS for several years now, only in 2011 the organizational preconditions were created to perform this function in a unique way.

Newly established joint business function of HR management contributes to the business efficiency of Electric Power Industry of Serbia. Four large groups of activities are organized within the sectors for strategy and HR management, HR development, health and safety at work and HR services.

Common business function enables management of unique policies and determination of unique procedures, implementation of unique analyses and undertaking of joint measures by the cooperation of organizational units which deal with HR management on different levels. In the business function organized in such manner, authority lines enable good coordination, as well as the synergy of initiatives and activities from different organization levels. Thus the best progress could be achieved in the field of HR management across the entire EPS Group. Furthermore, certain groups of jobs which are very significant in the way of development of competitive potentials of company that wants the full affirmation on the regional electric energy market could be jointly opened and organized in a planned and systematic way.

Common function is based on the detailed IT support, which EPS has been working on intensively for several years. Besides its own personal data base which gives elements for the preparation of all reports and analyses, complete IT support was finished for job application via EPS web site and for the selection of candidates in a completely transparent and democratic way during 2011. Affirmation of interviews for the selection of the best is a part of the business policy of Electric Power Industry of Serbia. New vacancy was published for the selection of 110 best interns within EPS Group, with the highest degree in education. By bringing in new blood with the highest degree in education, EPS wants to create experts and managers who will be the bearers of future company development.



Knowledge – Foundation of Our Competitive Advantages

Education of employees is established as one of the most important activities of HR management and development. Preference for market operation entails planned and meaningful investments in the knowledge, as one of the ways to survive in the competitive game.

Even though continuing education and skills development of employees have been present for several decades as business policy appropriate for this complex technical and technological system, they gain significant importance through affirmation of human resources management as the significant field in the overall management. In all EPS organizational parts, the accepted recognition is that professional improvement raises competitive capacities of the company, contributes to the improvement of work efficiency, knowledge activation and skills of employees, innovation of managerial knowledge, more efficient organization, guidance of new employees as well as to opening of new positions.

All types of professional education were present in Electric Power Industry of Serbia during 2011. They included 18,943 employees and for that purpose about RSD 95 million was invested.

Periodical trainings were held regularly in the field of safety and health at work, fire protection and environmental protection, as well as the internal and external training for devices, facilities and hazardous materials use. Besides that, continuation of education of employees was enabled for the purpose of acquiring higher education degree.

The beginning of new projects requests monitoring of professional knowledge and its innovation. Large number of experts from all organizational parts of EPS is involved in the work of professional conferences in the country and abroad, to use them as an opportunity to acquire new knowledge and to present their own scientific and professional papers.

Overview of development of employees (education, training and professional seminars) and funds spent

Subsidiary	Employees	RSD
HPPs Đerdap	966	13,432,691.00
HPPs Drinsko-Limske	170	3,190,743.00
TPPs Nikola Tesla	6,518	6,634,462.24
MB Kolubara	4,503	25,571,045.57
TPPs-OCMs Kostolac	931	8,794,000.00
CHPs Panonske	401	1,908,301.29
Elektrovojvodina	830	14,873,654.71
Elektrodistribucija Beograd	728	5,171,000.00
Elektrosrbija	2,181	4,944,261.00
Jugoistok	1,552	3,297,116.73
ED Centar	1,114	2,378,000.00
PE EPS	333	11,794,119.00
TOTAL	18,943	94,440,394.54

Health and Safety at Work

Electric Power Industry of Serbia pays special attention to health and safety at work. For creation of healthy and safe conditions at work, as well as for provision of health protection for employees in EPS, more than RSD 853 million was invested in 2011.

Based on recognized and identified risks in the system, the whole spectrum of preventive measures is applied. The biggest attention is paid to the usage of work equipment, means and equipment for personal protection at work, education of employees for safe and healthy work and provision of appropriate conditions of working environment. Only for preventive and periodic inspection and testing of work equipment more than RSD 100 million was spent in 2011, and for examination of conditions in the work-



ing environment almost 13.1 million. In addition to these obligatory inspections and testing, special attention is paid to their regular maintenance, significant both for appropriate and safe work with equipment. The nature of operations and working activities performed by employees of EPS imposes use of means and equipment for protection at work, regardless of all other measures applied. More than RSD 412 million is spent for their purchase, which is almost half of the total funds. Special attention is paid to the control of their usage.

System for health and safety at work is designed in such a way that the focus is on the work place, i.e. implementation of measures which should provide safe and healthy work. This system cannot function unless employees themselves are not actively and appropriately included. Education of employees for safe and healthy work, together with provision of information and notes, improves relation of employees towards this area and develops their consciousness about that. Therefore very often the programs for education of employees for safe and healthy work are extended by additional trainings. For the realization of the program approximately RSD 24 million was invested.

Significant aspect of care for employees is monitoring of their health condition. It is done through regular and periodic medical examinations of employees who work at positions with increased risk. For that purpose around RSD 88.4 million was planned. We are especially proud of the fact that we have provided health protection even for the employees for who we are not obliged to do that in accordance with health and safety regulations. This health protection includes specialist medical examinations (gynecological, oncological) and regular medical check-ups. RSD 52 million was planned for this. We send employees diagnosed with some disease to rehabilitation, prevention of work disability or recreation, based on the recommendation of competent health authorities, and for that purpose we prepared more than RSD 155 million in 2011.

Unfortunately, despite undertaken measures, there were two accidents with fatal consequences and 104 serious injuries at work in 2011. Regardless of the fact that it is less than in 2010, we are not and we cannot be satisfied with that. In the following

Overview of funds spent on:

using equipment for work, working environment conditions, personal protective equipment at work, health and safety training for employees, medical check-ups for employees that work on high risk work places, rehabilitations, prevention of work disability and recreation of employees

Subsidiary	RSD
HPPs Đerdap	37,460,000.00
HPPs Drinsko-Limske	12,504,622.00
TPPs Nikola Tesla	89,086,000.00
MB Kolubara	224,520,089.00
TPPs-OCMs Kostolac	116,404,029.00
CHPs Panonske	12,652,260.00
Elektrovojvodina	155,630,000.00
Elektrodistribucija Beograd	41,849,745.00
Elektrosrbija	72,508,193.00
Jugoistok	61,774,482.00
ED Centar	24,819,491.00
PE EPS	4,623,730.00
TOTAL	853,832,641.00

period we would like to become leaders in this field and synonym for well-organized system with the support of Health and Safety at Work Sector, within business function of HR management, through unique business policy and procedures, by coordination of professional jobs at the level of the entire system.

Old and New Approach

Along with the new organization of HR management activities, automated preparation of many acts was implemented in 2011. Good personal data base and its timely updating already enabled printing of employment contracts, decisions and certificates directly out of it. For the purpose of common function all novelties are determined as models and are tested at the level of parent company, so that in the following period they could be implemented in subsidiaries. One of the novelties shall be income calculation as well as recording and reporting of all employees' expenses. Our immediate goals are professional analysis of work, planning and measurement of effective work, adequate organization of work, recognition of talents and career development, but cost reduction, elimination of irrationality and employment based on objective needs as well.

Even though common function was established in the mid-2011, visible progress was already achieved in that year.

Environmental Protection Function

Due to the series of specific events and circumstances, for many years environmental protection was in the shadow of rehabilitation of production capacities within Electric Power Industry of Serbia. In the last few years EPS significantly changed the direction regarding this issue and thus environmental improvement and protection became integral parts of the primary company policy. As the result of these changed circumstances, in Electric Power Industry of Serbia reconstruction process, field of environmental protection became in 2011 the common function for departments and all subsidiaries.

By 2004, EPS invested EUR 138 million in environmental protection and in order to harmonize the operation of power plants with the EU standards it should invest EUR 1.2 billion by 2017. About EUR 53 million was invested in the reconstruction or replacement of electrostatic precipitator in TPP Nikola Tesla A, where there are six units and the only unit where the reconstruction or replacement of electrostatic precipitator have not been done is Unit 3 and this should be done by 2014.

EUR 85 million was invested in the introduction of new technology and in the reconstruction of transport system and in the system for ash and slag disposal to the dumps. It is invested in the systems in Kostolac B and TENT B which are now fully functional, as well as in the system in TPP Kolubara. Construction of system in TPP Kostolac A should be completed in 2012.

EPS intends to invest EUR 1.2 billion in five environmental protection projects by mid-2017 and the most valuable one, worth EUR 544 million, is desulphurization project for TPP Nikola Tesla and in Kostolac.

For the desulphurization project in TENT, EPS secured the loan from the program of Japanese Official Development Assistance (Japanese ODA loan), worth EUR 246 million. EPS shall invest its implementation with 15 percent of necessary funds.

Among EPS priorities are the reconstruction of transport system and ash and slag disposal system, where about EUR 50 million should be invested in the replacement of remaining electrostatic precipitators in TPPs, as well as in the waste water treatment and in the oil removal from EPS plants.

A lot has been done regarding the harmonization of legislation of Republic of Serbia with the EU. Treaty establishing the Energy Community of Central and Southeast Europe, which gained the statutory framework by its ratification in the Assembly of the Republic of Serbia, binds us to harmonize the regulations with the EU. A number of obligations come from that document, signed by the countries of SE Europe, as one party and the EU, as another party. Therefore Serbia has to meet all the directives regarding emission of harmful substances into the atmosphere, nitrogen dioxide and sulfur dioxide. National legislation determined the deadlines as well.

The controls of all parameters in EPS subsidiaries are performed by accredited laboratories and the reports are submitted to the Ministry of Energy, Development and Environmental Protection, Mining and Spatial Planning, Ministry of Agriculture, Forestry and Water Management, as well as to Electric Power Industry of Serbia and to other relevant institutions at national and local level.

Open Cast Mines

The measuring of harmful and hazardous substances in water and soil, presence of noise in environment, as well as the measuring of waste was performed at all open cast mines of MB Kolubara and OCMs Kostolac. In Prerada, the branch of Kolubara, where coal treatment and refinement is performed, the quality of air was also measured in the zone of branch's impact. Reclamation was done again on the old lands, as well as on the six hectares of arable land in Kolubara.



Thermal Power Plants

It is evident that thermal power plants are the biggest measured environment polluters in Serbia- they emit around 70 percent of the total carbon dioxide emission. However, they are also the biggest producers of electricity in the country. That is why a number of all previous, but also future, environmental projects is focused on this sector.

Every year in EPS thermal power plants about 30 million tons of lignite is burned. The product of that combustion is around 5.5 million tons of ash and slag p.a., which are disposed on the open space storages which surface is around 1,200 hectares in total. Every year about 280,000 tons of sulfur dioxide is emitted in the atmosphere, then about 60,000 tons of nitrogen oxide and around 30 million tons of carbon dioxide. The biggest problems of environmental protection in thermal sector arise during the operation of electrostatic precipitators, which regulate the air pollution caused by flue gases particles. Ash, as a main product of lignite combustion, has harmful impact on air, solid and groundwater.

Quantity of hazardous and dangerous substances emitted in the atmosphere from thermal and energy plants in 2011.				
Subsidiary	t / year			
	Solid Particles	SO ₂	NO _x (NO ₂)	CO ₂
TENT	14,250.00	218,725.00	39,234.00	22,787,244.00
TPPs-OCMs Kostolac	8,459.00	149,538.00	11,900.00	7,257,593.00
Panonske CHPs	4.84	107.80	1,401.49	314,745.00
MB Kolubara Branch Prerada	101.00	1,554.00	300.00	163,514.00
PE EPS	22,814.84	369,924.80	52,835.49	30,523,096.00

TENT

Electrostatic precipitators at units 1, 2, 4, 5 and 6 in TPP Nikola Tesla A, unit 2 in TPP Nikola Tesla B and unit 5 in TPP Kolubara A have been reconstructed until now.

In order to reduce sulfur oxide emissions below 200 mg/Nm³, in accordance with the provisions of RS regulation and EU regulation, it is planned that flue gas desulphurization plants are installed by 2017. Japan International Cooperation Agency (JICA) prepared Feasibility Study for flue gas desulfurization TENT A (3-6) and TENT B within the donation of Japanese Government to Serbia.

The largest quantity of water in TENT thermal power plants is used to cool the steam in condensers. TENT A and TENT B use water from Sava River and TPP Morava from Velika Morava River. Water is also used for hydraulic transport of ash and slag.

In 2011 the project for Phase II reconstruction of ash handling system at Unit 5 in TPP Kolubara A was done. Large part of the project was implemented and completion of works is planned for 2012.

42,267 tons of dry ash was delivered to the construction industry during 2011 (from silos at TENT B and TPP Kolubara A).

37,149.75 tons of dry ash was delivered to the cement plants from TPP Kolubara A.

TPPs-OCMs Kostolac

Electrostatic precipitators on units 1 and 2 in TPP Kostolac A have been reconstructed until now.

Loan from the Chinese Government for flue gas desulphurization plant construction in TPP Kostolac B was approved.

CHPs Panonske

Air quality and concentration of sulfur dioxide, nitrogen oxides and soot were monitored during 2011.

Regular individual measurements of pollutant emissions into the atmosphere and the quality of waste water are conducted in accordance with the statutory requirements.



Hydro Power Plants

HPP Đerdap

Environmental protection in HPP Đerdap was conducted in accordance with defined procedures of Environmental Management System (EMS) and Occupational Health and Safety Management System (OHSAS) during 2011.

During 2011 no negative impacts on flow and ecological system below reservoir were registered in the facilities of subsidiaries.

HPPs Drinsko-Limske

This subsidiary had the second control certification verification of Integrated Management System - ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 standard in 2011.

HPPs Drinsko-Limske successfully certified Information Security Management System in accordance with requirements of ISO/IEC 27001:2005 standard.

Identified negative impacts in flows below dams are mainly double-sided: with the very low water level (low flow), which depends on annual climate and weather conditions and vice versa, when the inflows are very high. Subsidiary strives to realize transfer of hydro energy to the maximum possible degree of utilization through planning and cooperation.

Waste in HPPs Drinsko-Limske is mainly created in the process of hydro power plants maintenance. During 2011 large quantities of waste appeared, due to the rehabilitation of HPP BajinaBašta. Waste was handled according to defined procedures. All waste was sold/handed over to authorized companies registered for that activity.

Distribution Companies

One of the priorities of EPS is also waste water treatment and removal of oil from EPS plants.

Distribution companies make an impact on the environment with the following factors:

- electromagnetic fields
- environmental noise measurement
- waste (various types of oil, waste electronic and electrical equipment etc.).



Integrated Management Systems

The Company's business operations management, according to the international management standards, through the projects implementation of the integrated management systems introduction, presents the highest priority for the Public Enterprise Electric Power Industry of Serbia. All management systems are striving towards business operations editing, inefficiency elimination and fulfillment of requests and interests of all interested parties – beneficiaries, owners, employees, suppliers and community.

Basic objectives of the integrated management system application are overall business operations improvement, higher business efficiency, rational power management, services quality improvement and sustainable development of Electric Power Industry of Serbia and its subsidiaries. Integrating this system, PE EPS promotes and applies progressive management concepts related with the improvement of all business procedures, focused on strategy and goals achievement, established by the company itself.

Quality Management System of PE EPS, certified in 2008, is recertified in August, 2011. That way certificate validity, in accordance with the standard ISO 9001 is extended by 2014. It is the clear signal that the company intends to maintain continuous integrated management systems improvement.

Integrated Management System Project is implemented in all subsidiaries within the company. They have been established and certified their business systems, according to the international standards of the quality management system ISO 9001:2008 and environmental protection management ISO 14001:2004, and almost each according to the standard BS OHSAS 18001:2007 for health and safety management system.

Electric Power Industry of Serbia in most part of the subsidiaries initiated implementation procedure of the information safety management system, according to the international standard ISO 27001. The wide application of information and communication technology within all activities of the Electric Power Industry of Serbia and also needs for high level of efficiency and all operations reliability, make this system inevitable. Along with the system implementation, its integration with the already established systems is in progress.

During 2011, several projects of certification laboratories have been implemented within the PE EPS subsidiaries, according to the standards SRPS ISO/IEC 17020 and 17025. Activities in direction of vertical integration of the PE EPS and its subsidiaries management system are continued on the level of IMS documents adjustment. In the following period key goals of the IMS projects will be management systems tighter integration, and their information – communication infrastructure improvement.

In order to have successful implementation, implemented systems maintenance and improvement, it is necessary to train employees adequately in order to perform all above mentioned tasks. Workshops preparations are initiated, which would be organized in the upcoming period, in order to have maximum number of the employees familiar with importance of these standards application within the activities implementation related with certain processes, so they could be separated and monitored in accordance with the planned activities and resources.

Achieved results in the field of establishing, maintenance and improvement of the management system within the company, create optimism and additionally encourage and motivate employees in PE EPS.

Integrated Management Systems					
	QMS	EMS	OHSAS	ISMS	Comment
PE EPS	2008/TS 2011/TS	Ongoing project	Ongoing project		
Subsidiary	QMS	EMS	OHSAS	ISMS	Laboratory
HPPs Đerdap	2005/SGS 2008/SGS 2011/SGS	2008/SGS 2011/SGS	2011/SGS	Ongoing project	
HPPs Drinsko-Limske	2009/SGS	2009/SGS	2009/SGS	2011/SGS	
TPPs Nikola Tesla	2005/SGS 2008/SGS 2011/SGS	2008/SGS 2011/SGS	2010/SGS		Laboratory accreditation is in progress: -Thermo technical -Vibrodiagnostics -Emission analysis according to ISO 17025
MB Kolubara	2009/BV	2009/BV	2010/BV		2007/ATS Laboratory for coal and waste water testing
TPPs-OCMs Kostolac	2006/SGS 2009/SGS	2011/SGS	Ongoing project		
Panonske CHPs	2002/SGS 2006/SZS 2008/TS 2011/BV	2008/TS 2011/BV	2010/SGS 2011/BV		
Elektrovojvodina	1998/QS/SZS,SGS 2004/SZS,TR 2010/Ct	2010/Ct	2010/Ct	Ongoing project	2011/ATS Accredited control body for meters according to SRPS ISO/IEC 17020
Elektrodistribucija Beograd	2001/QS/SZS 2011/QMS/Ct	2010/Ct	Ongoing project	Ongoing project	Accreditation of control body for meters according to SRPS ISO/IEC 17020 is in progress
Elektrosrbija	2006/TS 2009/TS,SGS 2010 SGS	2007/ TS,SGS 2010 SGS	2009/TS,SGS 2010 SGS		
Jugoistok	2005/TS 2010/SGS	2010/SGS	2010/SGS		
ED Centar	2001/QS/SZS 2005/TS 2008/SGS 2011/SGS	2007/TS 2008/SGS 2011/SGS	2007/TS 2008/SGS 2011/SGS		Implementation of SRPS ISO/IEC 17020 standards is in progress

Legend:

QS	Quality System
QMS	Quality Management System, ISO 9001
EMS	Environment Management System, ISO 14001
OHSAS	Occupational Health and Safety Management System, BS OHSAS 18001
IMS	Integrated Management System
ISMS	Information Security Management Systems, ISO 27001

Certified Bodies:

SZS	Institute for Standardization
SGS	Societe Generale de Surveillance
TS	TUV SUD
Ct	Certop
BV	Bureau Veritas
TR	TUV Rheinland
ATS	Accreditation Body of Serbia

Public Relations

Will there be enough electricity when, once again, in January, the records are to be broken regarding both the electricity generation and consumption; why did the electricity price increase; how to prevent the electricity theft and protect the customers who regularly pay the bills for electricity; how big are the debts of the costumers; then, when will EPS start the construction of power plants and rehabilitation of its generation capacities, which activities shall be undertaken in the field of environmental protection – were the dominant questions that required the communication with different stakeholders.

Electric Power Industry of Serbia, as public enterprise which core activity is the electricity supply to customers, is always in the focus of general public. Therefore at EPS, special attention is paid to the informing and communication with different target groups.

In 2011 as the result of such communication, more than 5,000 texts were published in printed media, almost 2,000 TV reports were emitted during 127 hours and more than 2,500 reports were on the internet.

Internal magazine “kWh” dealt with the topics which were significant for the company business and which represented official positions of the management. Ten thousand copies were published each month. Besides its role in internal informing, many texts published in the magazine were also in external medias.

Internal e-newsletter “E-Info”, that is sent to more than 700 addresses within and outside EPS, published short information in more than 450 its editions.

In 2011 on the web page www.eps.rs the new web site of Electric Power Industry of Serbia was placed. Visitors of that site can find the most important and latest information on EPS business operation, get to know with the all activities of the company, most important strategic and development projects, as well as with the investments regarding environmental protection and use of the renewable energy resources. Beside all previous information regarding the customers and electricity savings, there are daily press clippings, press releases, photo and video gallery, contacts, organizational structure, as



well as the annual financial reports of JP EPS and its subsidiaries. Novelty on the web site is the section regarding HR, where beside the details on most important activities of this function within EPS, there is an online job application available.

A lot of attention was paid to the presentation of company and its activities at different national and international conventions, professional conferences, round tables, etc. Strategic document "The White Book Of Electric Power Industry of Serbia" was promoted at the most important institutions of the EU, at the big international and national fairs and our public was informed about this.

In addition, corporate social responsibility of EPS was promoted to the general public. Company helped and supported education, science, culture, religious organizations, health care and sport with the donations and sponsorships.

Electric Power Industry of Serbia sent the humanitarian aid to Japan for the recovery of damage caused by earthquake, tsunami and damages nuclear reactors in Fukushima, supported the project of the team of students "Strawberry energy" that won the first place in the competition "Sustainable Energy Week" in Brussels, supported UNICEF program "School Without Violence", etc.

At the occasion of the company day, on October 6th, Management Board of EPS gave the donations to preschool institutions from Petrovac na Mlavi and Lebane, as well as to Clinical Hospital Center Priština, with its seat in Gračanica.



Tabels

Consolidated Balance Sheet of PE EPS and Subsidiaries

Item	EDP	Balance as of		Index	
		12/31/2011	01/01/2011		
1	2	3	4	5	4/5
Assets		RSD 000			
A	FIXED ASSETS (002+003+004+009)	001	1,150,623,635	528,362,104	218
I	UNPAID REGISTERED CAPITAL	002	0	0	0
II	GOODWILL	003	0	0	0
III	INTANGIBLE INVESTMENTS	004	2,558,133	2,481,616	103
IV	PROPERTY, PLANT, EQUIPMENT AND BIOLOGICAL ASSETS (006+007+008)	005	1,145,701,098	522,720,300	219
1.	Property, plant and equipment	006	1,145,125,238	522,471,284	219
2.	Investment properties	007	379,069	52,225	726
3.	Biological assets	008	196,791	196,791	100
V	LONG-TERM FINANCIAL INVESTMENTS (008+009)	009	2,364,404	3,160,188	75
1.	Investments in capital	010	981,401	1,481,113	66
2.	Other long-term financial investments	011	1,383,003	1,679,075	82
B	CURRENT ASSETS (013+014+015+021)	012	102,949,867	98,555,727	104
I	INVENTORIES	013	27,297,606	27,858,299	98
II	FIXES ASSETS AVAILABLE FOR SALE AND ASSETS OF DIS-COUNTING OPERATIONS	014	0	0	0
III	SHORT-TERM RECEIVABLES, INVESTMENTS AND CASH (013+014+015+016)	015	75,652,261	70,697,428	107
1.	Receivables	016	66,533,152	60,744,310	110
2.	Receivables on account of prepaid income tax	017	0	0	0
3.	Short-term financial investments	018	2,872,660	1,898,285	151
4.	Cash equivalents and cash	019	5,472,037	6,053,650	90
5.	Value-added tax, accruals and prepaid expenses	020	774,412	2,001,183	39
IV	DEFFERED TAX ASSETS	021	0	0	0
C	OPERATING ASSETS (001+012)	022	1,253,573,502	626,917,831	200
D	LOSS EXCEEDING THE VALUE OF EQUITY	023	0	0	0
E	TOTAL ASSETS (022+023)	024	1,253,573,502	626,917,831	200
F	OFF-BALANCE SHEET ASSETS	025	186,822,501	140,500,302	133

Item	EDP	Balance as of		Index	
		12/31/2011	01/01/2011		
1	2	3	4	5	4/5
Equity and Liabilities					
				RSD 000	
A	EQUITY (102+103+104+105+106-107+108-109+110)	101	1,014,602,503	453,021,104	224
I	FIXED AND OTHER CAPITAL	102	359,982,519	359,983,647	100
II	UNPAID REGISTERED CAPITAL	103	0	0	0
III	RESERVES	104	0	0	0
IV	REVALUATION RESERVES	105	781,742,820	245,680,511	318
V	UNREALISED GAINS ON SECURITIES	106	21,952	399,870	5
VI	UNREALISED LOSSES ON SECURITIES	107	663,833	475,535	140
VII	UNDISTRIBUTED PROFIT	108	0	0	0
VIII	LOSS	109	126,480,955	152,567,389	83
IX	TREASURY SHARES	110	0	0	0
B	LONG-TERM PROVISIONS AND LIABILITIES (112+113+116)	111	156,673,546	151,048,727	104
I	LONG-TERM PROVISIONS	112	12,340,596	10,848,301	114
II	LONG-TERM LIABILITIES (114+115)	113	48,214,119	53,336,739	90
1.	Long-term loans	114	45,541,497	49,869,952	91
2.	Other long-term liabilities	115	2,672,622	3,466,787	77
III	SHORT-TERM LIABILITIES (117+118+119+120+121+122)	116	96,118,831	86,863,687	111
1.	Short-term financial liabilities	117	17,682,434	16,224,457	109
2.	Liabilities on account of assets available for sale and assets of discounting operations	118	0	0	0
3.	Operating liabilities	119	52,089,907	42,047,843	124
4.	Other short-term liabilities	120	2,978,904	6,160,938	48
5.	Liabilities on account of vat and other public revenues,accruals and deferred income	121	20,835,728	22,350,989	93
6.	Liabilities on account of income tax	122	2,531,858	79,460	3,186
C	DEFERRED TAX LIABILITIES	123	82,297,453	22,848,000	360
D	TOTAL EQUITY AND LIABILITIES (101+109+123)	124	1,253,573,502	626,917,831	200
E	OFF-BALANCE SHEET LIABILITIES	125	186,822,501	140,500,302	133

Consolidated Income Statement of PE EPS and Subsidiaries

Elements		Actual 2011	Plan 2011	Actual 2010	Index	
1	2	3	4	5	(3/4)	(3/5)
I	OPERATING REVENUE	190,325,398	181,470,012	172,432,243	105	110
II	OPERATING EXPENDITURE	179,098,106	167,359,172	157,800,210	107	113
1.	Electricity procurement	22,675,997	18,888,521	20,254,061	120	112
2.	Material and fuel costs	14,153,902	13,647,049	12,407,164	104	114
3.	Maintenance	20,509,372	15,985,920	18,424,029	128	111
4.	Depreciation	42,965,542	37,280,049	36,055,328	115	119
5.	Employee costs	46,982,402	46,185,217	41,514,010	102	113
6.	Insurance	1,918,524	2,101,757	1,861,928	91	103
7.	Liabilities towards the state	10,293,977	12,575,704	11,367,448	82	91
8.	Other operating expenditure	19,598,390	20,694,955	15,916,242	95	123
I-II	Operating profit/loss	11,227,292	14,110,840	14,632,033	80	77
III	FINANCIAL REVENUE	9,892,874	10,731,997	12,304,259	92	80
IV	FINANCIAL EXPENDITURE	4,020,216	8,965,149	12,609,646	45	32
III-IV	Financial profit/loss	5,872,658	1,766,848	-305,387	332	0
V	OTHER REVENUE	53,941,242	907,301	6,227,362	5,945	866
VI	OTHER EXPENDITURE	41,436,633	26,467,632	23,604,826	157	176
V-VI	Other profit/loss	12,504,609	-25,560,331	-17,377,464	0	0
VII	PROFIT FROM DISCONTINUED OPERATIONS	0	0	0	0	0
VIII	LOSS FROM DISCONTINUED OPERATIONS	0	0	0	0	0
VII-VIII	Net profit/loss from discontinued operations	0	0	0	0	0
A	TOTAL REVENUE (I+III+V+VII)	254,159,514	193,109,310	190,963,864	132	133
B	TOTAL EXPENDITURES (II+IV+VI+VIII)	224,554,955	202,791,953	194,014,682	111	116
A-B	Total profit / loss	29,604,559	-9,682,643	-3,050,818	0	0
	Tax Expenditures	-3,355,878	0	-820,261	0	0
	Deffered Tax Revenues/Expenditures	571,156	0	992,637	0	58
	NET TOTAL PROFIT/LOSS	26,819,837	-9,682,643	-2,878,442	0	0



Note

In "Annual Report of Electric Power Industry of Serbia 2011" the most important indicators and information on operation of the company were given for the indicated year. Texts were written based on data that have been submitted to Public Relations Sector from all Departments of PE Electric Power Industry of Serbia, from the management and common business functions of the company.

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