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EP JP ELEKTROPRIVREDA
HRVATSKE ZAJEDNICE HERCEG BOSNE d.d. Mostar

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GENERAL MANAGER'S REPORT

JP Elektroprivreda Hrvatske zajednice Herceg-Bosne, a joint stock company Mostar, is one of three public power utilities in Bosnia and Herzegovina.

It was established on November 17, 1992 and since it has operated in 35 municipalities in the Federation of Bosnia and Herzegovina providing electricity to approximately 200,000 customers.

The main activities of JP Elektroprivreda Hrvatske zajednice Herceg-Bosne d.d. Mostar are power generation, distribution, supply, trading, representation and agent services in the domestic electricity market, and imports and exports of electricity.

From establishment of the Company until 2001, the owners of the company were Croat-majority municipalities, while its present majority owner is the BiH Federation Government (90% state capital, the rest joint-stock capital).

JP Elektroprivreda Hrvatske zajednice Herceg-Bosne d.d. Mostar suffered considerable damage in the war time and raised from the ashes in the early post war years. Today, 20 years later, it is a respectable and successful public company.

The Company has invested hundreds of millions of KM of its own and loan funds in rehabilitation of the power system, reconstruction of the war damaged power plants, reconstruction of the transmission and distribution network, as the priorities of its operation.

Although the HPP Mostar was completely destroyed, and the HPP Rama, HPP Jajce I and HPP Jajce II were damaged in the war



of 1992, it did not discourage the Company not only from reconstructing the existing facilities, but also from constructing the new ones such as the HPP Peć Mlini (2004) and HPP Mostarsko Blato (2010). JP Elektroprivreda Hrvatske zajednice Herceg-Bosne d.d. Mostar is the only power utility in the region which has built new HPPs in its system in the last 30 years.

The Company operates seven hydro power plants that are in a good operating condition, with the installed capacity of 852 MW (HPP Rama, HPP Mostar, PSHPP Čapljina, HPP Jajce I, HPP Jajce II, HPP Peć Mlini and HPP Mostarsko Blato).

The Company's policy is focused on development and construction of new generation facilities, which is also a part of the strategic plan of the FBiH power sector development. Continuous implementation of development projects, modernization of the overall business operation and adjusting to the open market demands in compliance with international and European standards are among the most important plans for the future.

Since 2004, the Company has intensively worked on the projects of wind energy utilization. Completion of the WF Mesihovina project is expected very soon. Construction of new WFs would be a confirmation of the Company's supremacy in the region in the use of renewable energy sources.

Along with the development policy, special consideration is given to safe and quality supply to all unqualified customers whose number is increasing, with the gross consumption of 1363 GWh in 2011, including the supply to three qualified customers with a consumption of 1,340 GWh.

In order to meet the electricity demand in the areas of its operation, either for public consumption or for qualified customers, the Company purchases electricity in the market.

The quality of electricity supply depends on a reliable distribution network, into which JP HZ HB d.d. Mostar regularly invests. With the continuous growth of the distribution overhead

and underground networks in the last 20 years, this Company operates and maintains 11,668 km long 10, 20 and 0.4 kV grid; 285 km long 35 kV grid; and 3,543 substations with the total installed power of 1,037 MVA.

In spite of all the difficulties, JP Elektroprivreda HZ HB d.d. Mostar is persistent and committed to work and boost satisfaction of its customers, owners, partners, social community and all employees.

JP Elektroprivreda HZ HB d.d. Mostar cooperates on a regular basis with the state and BiH Federation Electricity Regulatory Commissions (The State Electricity Regulatory Commission and Regulatory Commission for Electricity in the Federation of Bosnia and Herzegovina, other EPs in BiH (EP BiH and EP RS), Elektro-prijenos BiH a.d. Banja Luka, and ISO BiH (Independent System Operator in BiH).

Until December 31, 2011 the JP Elektroprivreda Hrvatske zajednice Herceg-Bosne d.d. Mostar employed 1880 workers among whom more than 500 employees hold university and college degrees.

We keep on systematically awarding scholarships and employing highly qualified employees of different professions and skills according to the need, which is a guarantee for a successful performance and development.

This publication is issued to mark the 20th anniversary of JP Elektroprivreda Hrvatske zajednice Herceg-Bosne d.d. Mostar, outlining only the basic performance data.

General Manager
NIKOLA KREŠIĆ, B.Sc.(El.Eng.)



MAP OF POWER SYSTEM IN BOSNIA AND HERZEGOVINA*



* The map was downloaded from the website of the State Electricity Regulatory Commission (SERC) <http://www.derk.ba/ba/ees-bih/karta-ees>.



I HISTORY OF ELECTRICITY IN BOSNIA AND HERCEGOVINA*

This year marks 124 years since electricity was used in BiH for the first time. The first steam power plant and the first steam engine to drive the direct current dynamo, which served for lighting of the head office, were installed in the Zenica brown coal mine in 1886.

Two years later, electric lighting was introduced in BiH, also in Zenica. With construction of the first public TPP (220 kV) in Sarajevo in 1895 a period of commercial use of electric energy in BiH started.

In early years of electrification, in terms of the type of voltage and current in the power plants, DC generators were mainly used and later they were replaced with AC generators.

The largest hydro power plant HPP ElektroBosna was put into operation in Jajce in 1899, and for a long time it was the largest HPP in Bosnia and Herzegovina.

Six bulbs lighted the streets of the town of Jajce in 1905, and in 1912 there were twice as many.

* For this chapter data were used from: *100 Years of Electricity in Bosnia Herzegovina*, EP Bosnia and Herzegovina, Energoinvest Birotehnika, (1988), *Annual Report 2000*, JP Elektroprivreda HZ HB d.d. Mostar, Mostar, 2001., *Half Century of Elektroprenos in Bosna and Herzegovina*, Banja Luka 2003.



30kV and 35 kV Transmission Grid Constructed before 1940

The first kilowatts in Mostar were generated in a 250 kW diesel-electric generating set in 1912. Ten years later (1922) a 2x1.5 MW thermal power plant was put into operation.

There is document from 1888 about electrification in Tuzla (offer from tt Gaz Budapest). However, Tuzla got electricity in 1906 from the TPP Kreka coal mine.



35 kV and 110 kV Transmission Grid Constructed before 1954

In the period between the two world wars, it was difficult to implement electrification plans and interesting thing was that individuals appeared as constructors for utility hydropower plants (HPP Ljuta - Konjic 1936, HPP Bugojno 1938), and the Church (HPP Kraljeva Sutjeska 1921, HPP Čajniče 1928 and HPP Široki Brijeg 1935.)

During the Second World War many power facilities were destroyed and out

of twelve plants with the installed power over 1000 kVA, only five of them were in operation at the end of the war.

According to the Decree**, the company *Elektrobih* was established on August 30, 1945 but the new plants and transmission lines were constructed with more or less difficulty.

The first 110 kV transmission line Mostar–Gorica was constructed in 1951 but operating under the voltage of 30 kV. By construction of the 110 kV TL Mostar–Grude–Kraljevac in 1955, the power systems of BiH and Croatia were connected.

By putting into operation of the 185 km double TL 110 kV HPP Jajce 1–Resnik, the western and eastern part of the power system of the former Yugoslavia was connected in a synchronous whole on December 22, 1957.

The first 220 kV TL Mostar–Split was constructed in 1957 but in operation under the voltage of 110 kV was until 1965 (when it became a part of the HPP Zakučac).

The first 400 kV TL Mostar–Konjsko, was put into operation in 1976, while the first 400 kV SS was the 400/220/110/35 kV SS Mostar 4 (Čule) that has been in operation since 1977.

In the period 1945 – 1960, the total installed capacity of the power plants in BiH was 449 MW from and it was nine

** Decree on Establishment of Power Company in Bosnia and Herzegovina, August 30, 1945 (in 100 Years of Electricity in Bosnia Herzegovina, 1988:15)



110 kV, 220 kV and 400 kV Transmission Grid Constructed before 1992

HYDRO POWER PLANTS (HPPS IN BIH 1954–1981)

Hydro Power Plant	River	Put into operation	Plant type	Turbine type	Utilizable reservoir volume ml, m ³	Maximum gross head m	Normal gross head m	Average annual recharge m ³ /s	Average annual energy output GWh	Power factor	Installed capacity MW	Available capacity MW
Trebinje 1 100 %	Trebišnjica	1968	Adjacent-to-dam-storage	Francis	1100	105	86.5	81.2	538	0.9	2x54 1x60	180
Dubrovnik (100%)	Trebišnjica	1965	Diversion-storage	Francis	9	295	270.0	93.5	1651	0.9	2x105	210
Trebinje II	Trebišnjica	1981	F	Kaplan		21	20.0	93.5	24	0.8	1x8	8
Čapljina	Trebišnjica	1979	Pumped storage	Francis	5	227	220.0	28.9	625	0.9	2x215	430
Rama	Rama	1968	Diversion-storage	Francis	466	325	285.0	33.1	731	0.9	2x80	160
Jablanica	Neretva	1955	Diversion-storage	Francis	288	111	93.7	111.8	792	0.7	6x24	150
Grabovica	Neretva	1982	Adjacent-to-dam-storage	Kaplan	5	37	34.0	136.0	342	0.9	2x57	114
Salakovac	Neretva	1982	Adjacent-to-dam-storage	Kaplan	16	43	42.0	182.7	593	0.9	3,70	210
Mostar	Neretva	1987	Adjacent-to-dam-storage	Kaplan	6	24	21.5	194.0	310	0.8	3x25	75
Jajce I	Pliva	1957	Diversion-run-of-river	Francis	2	98	88.4	40.0	247	0.8	2x24	50
Jajce II	Vrbas	1954	Diversion-run-of-river	Francis	2	49	42.5	71.7	165	0.57	3x10	28
Bočac	Vrbas	1981	Adjacent-to-dam-storage	Francis	43	54	52.0	78.4	307	0.88	2x55	110
Total HPP					1,942			1,144.8	6,325			1,725

times higher than in 1945. During this period, the HPP Jajce II, HPP Jablanica and HPP Jajce I were put into operation.

In the period from 1960 – 1980 the HPP Rama, HPP on the Trebišnjica river and PSHPP Čapljina, as the first pumped storage power plant in the former state were constructed.

In the period 1976 – 1987, the gross power consumption (consumption + losses) in the power system of Bosnia and Herzegovina grew at an average annual rate of 7.5%, while power generation grew at an average annual rate of 4.7%.

As a result of such disproportional growth in the consumption and generation, we turned from the surplus electricity period

which lasted until 1980 to the shortage electricity period starting from 1981. Therefore, from 1976 to 1980 there were no real power cuts, except in 1976 and 1978 when there were short power cuts mostly for special customers, based on the provisions of mutual agreements.

We end up with a short overview of the history of electricity in our area with the Work Organization *Elektro-Herzegovina*, headquartered in Mostar, which operated within Elektroprivreda of Bosnia and Herzegovina Sarajevo, the Composite Organization of Associated Labour for Power Generation, Transmission and Distribution.



**CIRCUMSTANCES OF
ESTABLISHMENT OF
JP ELEKTROPRIVREDA HZ
HB D.D. MOSTAR**

By the Decision of the Government of the Croatian Community of Herzeg-Bosnia (National Gazette of the Croatian Community of Herzeg-Bosnia 1992, No.2/ September, page 33/34.) the Work Organization *Elektro-Herzegovina* with its biggest part entered into the newly established company JP Elektroprivreda Hrvatske zajednice Herceg-Bosne, a company for power generation, transmission and distribution. The Company was founded to supply electricity and to establish basic living and working conditions for the citizens and for the economic entities and organizations on the territory of the Croatian Community of Herzeg-Bosnia. Besides the utilities from the Herzegovina area, the Company consisted of the utilities from Middle Bosnia and Posavina i.e. the utilities from the municipalities within the Croatian Community of Herzeg-Bosnia. This is about 35 municipalities in which JP Elektroprivreda Hrvatske zajednice Herceg-Bosne d.d. Mostar performs its activities nowadays.

September 1992

NARODNI LIST HZ HERCEG-BOSNA

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Pursuant to Article 18 of the Statutory Decision on the Temporary Organization of Executive Power and Administration on the Territory of the Croatian Community of Herceg - Bosna, and in accordance with Article 1 of the Decree on Public Companies in the Croatian Community of Herceg-Bosna, the Croatian Defence Council at its session of 28 August 1992 issues the following

DECISION
on Establishment of the Public Company Elektroprivreda Hrvatske zajednice
Herceg – Bosna
in time of Imminent Threat of War or State of War

Article 1

It is hereby established a Public Electric Utility Company for power generation, transmission and distribution to enable operation of other companies and organizations on the territory of the Croatian Community Herceg Bosna (hereinafter referred to as HZ H-B), as well as to meet basic living and working conditions of citizens. The Public Company comprises organizations on the territory of HZ H-B.

Article 2

The Public Electric Utility Company operates under the name: “ELEKTROPRIVREDA” Hrvatske zajednice Herceg-Bosna, Public Company for power generation, transmission and distribution with full liability. The abbreviated company name is “EPHZ Herceg Bosna”. The Public Company’s headquarters is in Mostar.

Article 3

The activity of Public Company is: power generation, transmission and distribution. The activity of Public Company is an activity of special interest.

Article 4

The Public Company provides:

- high quality and cost-effective electricity supply to economy and population,
- technical and technological unity in the field of power generation, transmission and distribution,
- electric utility activity development synchronization with the needs of consumers ,
- connection of the electric power system of Herceg Bosna both within the Republic of BiH and outside the Republic,
- harmonization of the electric power system relationships with consumers of electricity by means of general conditions for electricity supply, tariff system and other needs.

Article 5

The funds for establishment of the Public Electric Utility Company are provided by the founder.

Article 6

The assets of Public Company Elektroprivreda HZ H-B consist of resources of electric utility organizations on the territory of HZ H-B.

September 1992

NARODNI LIST HZ HERCEG-BOSNA

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Article 7

The Presidency of HZ H-B gives approval to the Public Company Statute.
The founder or its body in charge gives also approval to the energy balance, tariff system for electricity sale, general conditions for electricity supply as well appointment and relieving the managing body of duty.

Article 8

The Public Company has a Board of Directors that manages the work of Company and consists of five members who are appointed and relieved of duty by the Croatian Defence Council HZ H-B.

Article 9

The Board of Directors performs especially the following tasks:

- appoints and relieves of duty the General Manager of the Public Company,
- appoints and relieves of duty directors of the Public Company components,
- adopts the annual energy balance with the approval of founder,
- adopts annual plans and work program,
- proposes general conditions for electricity supply and tariff system of sale to the founder,
- passes general acts of the Public Company,
- performs also other duties to be determined by the Statute and other by-laws of the Public Company.

Article 10

The Board of Directors shall establish the internal organization of the Public Company by a special decision which will have a temporary character based on criteria that enable the highest level of use of material and human resources, the maximum reproductive ability of activity and achievement of special interest in this area.

Article 11

The adoption of the Statute and the constitution of the management body shall be made within 30 days as of the day of enactment of this Decision.
Until the election of the managing body of the Public Company the Acting General Manager will assume the function of that body.

Article 12

This Decision is the basis for registration of the Public Company in the court register.
The Public Company will begin operations immediately.

Article 13

This Decision shall come into effect on the day of its enactment.

REPUBLIC OF BOSNIA AND HERZEGOVINA
CROATIAN COMMUNITY OF HERCEG – BOSNA
CROATIAN DEFENCE COUNCIL

PRESIDENT OF HVO HZ H-B

dr. Jadranko Prlić



II JP ELEKTROPRIVREDA HZ HB D.D. MOSTAR – BUSSINESS POLICY

All authorities stopped exercising power in the turmoil of war in 1992 and local communities were left on their own. In such circumstances, the Presidency of the Croatian Defence Council issued a Decision establishing the public company Elektroprivreda HZ HB Mostar in the areas under its control.

The Public Company Elektroprivreda Hrvatske zajednice Herceg Bosne Inc. Mostar was registered on November 17, 1992, which is now celebrated as the Day of the Company.

The workers were included in power generation and supply where it was possible.

They used to replace their work places with battlefields where they were wounded and lost their lives.

A due respect and appreciation should be given to more than 40 workers who performed their duties and gave their lives in the war. At the end of the war, the power system was completely destroyed.

With the intensive rehabilitation of the power system and reconstruction of the power facilities, the Company was growing up and becoming more consolidated. In the summer of 1996, the Public Company Elektroprivreda Hrvatske zajednice

Herceg Bosne Inc. Mostar was re-registered as a limited liability company Mostar.

In early 2004, 10% of the company's state capital was privatized. The status of the Company changed to a joint stock company Mostar in March 2004.

One of the activities of JP HZ HB d.d. Mostar was power transmission until March 2006 when a power transmission company was established at the state level.

With the funds of the World Bank and the European Investment Bank, JP Elektroprivreda HZ HB d.d. Mostar managed to rehabilitate the transmission grid by 2006. It significantly contributed to synchronization of the European Power System. In addition to reconstruction of the old power facilities, new transmission substations and hundreds of km of the high voltage grid were constructed.

Since its establishment the Company has had four general managers:

- 1992 - 1999 Mate Jurković
- 1999 - 2003 Matan Žarić
- 2003 - 2008 Vlado Marić
- 2008 - 2011 Matan Žarić
- 2011 - Nikola Krešić

VISION

JP Elektroprivreda HZ HB d.d. Mostar wishes to become the main driving force of economic development in the areas of its operation and an active participant in the overall development of Bosnia and Herzegovina.

All of the development programs should enable the development of other activities for the benefit of all citizens of Bosnia and Herzegovina primarily for our benefit through the power system development.

MISSION

The mission of JP Elektroprivreda HZ HB d.d. Mostar is quality, reliable and secure power generation, distribution and supply, and development of new power facilities according to the development needs of users in line with the development plans of Bosnia and Herzegovina.

In achievement of its mission, JP Elektroprivreda HZ HB d.d. Mostar will follow its objectives:

- Sustainability of overall development
- Implementation of worldwide experience and ideas in power activities
- Business efficiency
- Development of competencies of specialists needed in power activities
- Support to partners in similar activities

JP Elektroprivreda HZ HB d.d. Mostar has a specific role in the process of integration of Bosnia and Herzegovina into the European energy and economic area .

STRATEGY

The top-priority medium-term objective of JP Elektroprivreda HZ HB d.d. Mostar is finding a solution for balancing power

generation and increasing electricity demands primarily by construction of renewable sources taking into consideration the principles of sustainability and decrease in electricity imports. This objective will be accompanied by establishing the system of management of quality, environment and business risks in the existing processes and investment projects

KEY STRATEGY OF BUSINESS POLICY

- Ensuring the missing quantity of electricity
- Development of the distribution grid and supply
- Expansion of the business operation
- Increasing the competitiveness in BiH and South East Europe electricity markets
- Reducing the power losses
- Increasing the collection rate
- Reliable and quality supply to customers
- Control of operating costs
- Quality management of resources
- Conclusion of flexible contracts for purchase and sale of electricity
- Restructuring in accordance with the Action Plan for Restructuring of Power Sector in FBiH.



ENVIRONMENTAL PROTECTION POLICY

JP Elektroprivreda Hrvatske zajednice Herceg Bosne d.d. Mostar carries out all activities according to the principles of sustainable development including responsible management, profitability, satisfaction of all interested parties and dynamic development that does not jeopardize environment.

The Company 's objective is achieving better results in environmental protection and it will take all available measures that will improve environmental protection in all organizational parts and activities. We will continuously monitor the impacts of our actions on environment and review methods to reduce harmful impacts of these actions.

The environmental protection policy is based on principles of preventive actions and caution. These principles are as follows:

- Compliance with legal provisions, standards and EU directives in the field of environmental protection,
- Responsible behavior to environment through efficient implementation of the environmental protection policy according to the principles of sustainable development,
- Development of consciousness of responsible behavior of all employees to environment,
- Application of the best available technologies (clean, environment friendly technologies and materials),

- Optimum or responsible and rational utilization of natural resources,
- Priority and intensive use of renewable energy sources,
- Permanent reduction, control and monitoring of emissions to air, water and soil, noise reduction and preservation of biodiversity,
- Continuous assessment of risk and possible incident impacts on environment, prevention and possible repair of the damage to protect the population and endangered environment,
- Inclusion of environmental protection requirements in development plans and projects and inclusion of





environmental protection criteria in decision making processes,

- Mitigation of harmfulness and decrease in quantity of the produced waste, and proper waste management through its disposal and reuse,
- Reduction of energy losses in generation and the distribution network and promotion of energy efficiency with its customers,
- Informing the public about the environmental protection status in the Company through mass media and preparation of annual reports.

In accordance with the promoted principles of the environmental protection policy, employees will be educated and trained through the environmental protection program and encourage them to work in an ecologically responsible manner. The existing system of environmental protection monitoring shall be maintained and improved, and clear

objectives of environmental protection management shall be set. Communication with NGO-s taking care of environment and other interested parties shall be provided through informing and public consultations about individual projects. Suppliers, consulting and designing firms, and other cooperating firms shall implement an appropriate environmental protection policy.

ENVIRONMENTAL PROTECTION ACTIVITIES

JP Elektroprivreda HZHB d.d. Mostar has been continuously implementing environmental protection measures through its all activities, especially regarding the water protection:

- By introduction of the hydrological system of automated measurement stations through the development projects with preparation of the

Environmental Impact Study related to protection of water quality and quantity;

- By obtaining environmental permits for newly constructed facilities and obtaining environmental permits for the facilities that were put into operation before the Law on Environmental Protection became effective;
- By regular stocking of the reservoirs,

Employees are regularly educated and trained for preparation and introduction of the environmental protection system.

Electronic and electric waste is disposed by the selected certified firm in accordance with the Waste Management Procedure adopted by the Management Board of JP Elektroprivreda HZHB d.d. Mostar. We also started activities on preparation of a Project Plan for Construction of Temporary Dangerous and Undangerous Waste Disposal Facilities.

III LEGAL DATA AND MANAGEMENT STRUCTURE

LEGAL DATA

The stock capital consists of 10% private capital and 90% state capital.

The Company stock capital amounts to BAM 736,166,000 and is divided into 7,361,660 ordinary shares.

The nominal value of a share is BAM 100.00.

HOME TRADE ACTIVITIES OF THE COMPANY ARE:

power generation, distribution and supply, trading, representing and in the domestic electricity market, manufacture of distribution control equipment, manufacture of other electrical equipment, generation of hydro, thermal and other power, power transmission, sale and distribution, construction and maintenance of civil engineering and building construction facilities and their parts, construction and maintenance of hydro power plants, electrical installation and other installation work, agency services in specific products trade, wholesale of machines for industry and other business activities.

FOREIGN TRADE ACTIVITIES OF THE COMPANY ARE:

- Imports of electricity and goods, and providing services included in the registered activities
- Exports of electricity and goods, and providing services included in the registered activities

- Agency services and representing in goods and services trade and
- Imports of spare parts, raw materials and equipment for carrying out of activities

STRUCTURE OF COMPANY SHAREHOLDERS

In 2002, the public subscription for shares in the second round was carried out and the 10% total capital amounting to BAM 73,616,600 was sold.

The largest share among legal entities is owned by the FBiH Government (6,626,306 shares or 90%) and the rest (10%) is owned by investment funds, banks, and other legal entities and physical persons – residents and non-residents.

STOCK TRADE – SASE

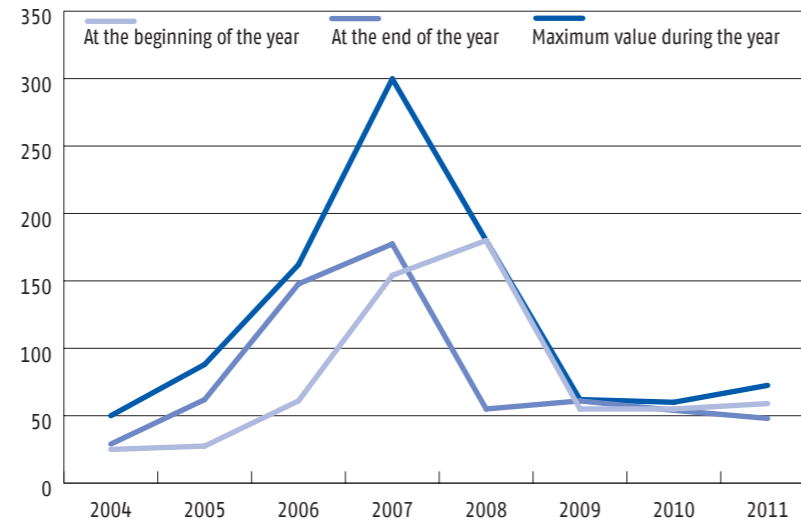
On September 15, 2004 JP Elektroprivreda Hrvatske zajednice Herceg-Bosne d.d. Mostar was included in SASE (Sarajevo Stock Exchange) under the issuer symbol JPEMR. At the beginning of 2007, JPEMR was included in the MFTS trading plan, i.e. continuous trading plan only for shares with a certain level of liquidity, frequency and intensity of trading in the stock exchange. JPEMR was included in the SAX -10 i.e. in the group of 10 issuers with the highest value of the market capitalization.

SHARES IN RELATED LEGAL ENTITIES

JP "Elektroprivreda Hrvatske zajednice Herceg Bosne d.d. Mostar has a share in the stock capital of the company "Konstruktor-Neretva" d.o.o. Čapljina amounting to BAM 859,665.

During 2006, the stock capital of this company was increased by investment of the member Konstruktor-inženjering d.d. Split. This resulted in the decrease of our Company share to 14%.

In the stock capital of the company Elektrokontrol HZ H B d.o.o. Čapljina amounting to BAM 432,500.00, JP "Elektroprivreda Hrvatske zajednice Herceg Bosne d.d. Mostar has a share of BAM 247,139 or 57.14%.



SHARE VALUES 2004 – 2011

Year	2004	2005	2006	2007	2008	2009	2010	2011
At the beginning of the year (BAM average exchange rate)	25.00	27.50	61.00	154.10	180.00	55.00	55.00	59.00
At the end of the year (BAM average exchange rate)	29.00	61.98	147.74	177.38	55.00	61.00	54.00	48.00
Maximum value during the year (BAM average exchange rate)	50.00	88.02	162.04	299.84	180.00	61.99	59.97	72.51

GOVERNING BODIES

SHAREHOLDERS' ASSEMBLY

The Shareholders' Assembly is composed of shareholders. It decides on matters determined by the Law and Articles of Association. Meetings of the Shareholders' Assembly are convened once a year at least for reporting on the Company Business Report that includes the financial statements and reports of the Independent Auditor, Supervisory Board and Audit Board.

SUPERVISORY BOARD

The Supervisory Board consists of the chairman and 6 members appointed and revoked by the Shareholders' Assembly pursuant to the Law. It supervises the business affairs of the Company and decides on other matters determined by the Law and Articles of Association. The meetings of the Supervisory Board are held as circumstances require but once in three months at least.

AUDIT BOARD

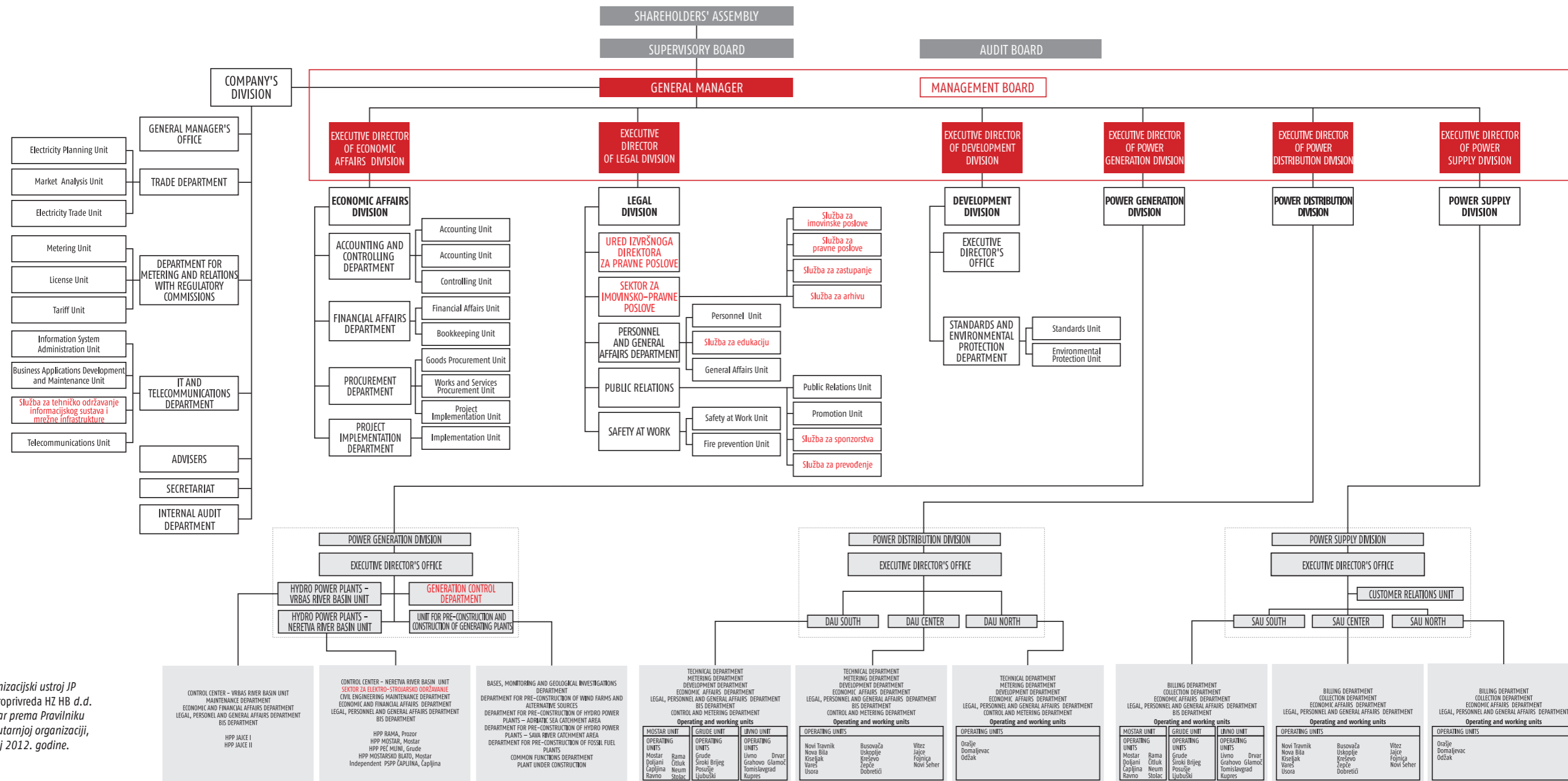
The Audit Board consists of three members including the chairman. Obligations and responsibilities of the Board are determined by the Law and Articles of Association.

MANAGEMENT BOARD

The Management Board consists of the General Manager and Executive Directors.

It manages the business affairs of the Company, represents and acts for the Company and is responsible for regularity of operations in accordance with valid regulations and acts.





Organizacijski ustroj JP Elektroprivreda HZ HB d.d. Mostar prema Pravilniku o unutarnjoj organizaciji, lipanj 2012. godine.



HEAD OFFICE

The Head Office is located in the headquarters of the Company. It supports and assists in organization of the work and business management, represents the Company by the Management Board, performs activities for the Company in general and for the organizational units, and manages and coordinates business operations performed in the organizational units.

ECONOMIC AFFAIRS DIVISION

The Economic Affairs Division is organized and coordinated by the Executive Director. It is divided into four departments: Accounting and Controlling Department, Financial Affairs Department, Procurement Department and Project Implementation Unit – PIU.

LEGAL DIVISION

The Legal Division is organized and coordinated by the Executive Director. The work within its scope is carried out through the Executive Director's Office, Property-Rights Department, Personnel and General Affairs Department, Public Relations Department, and Safety at Work Department.

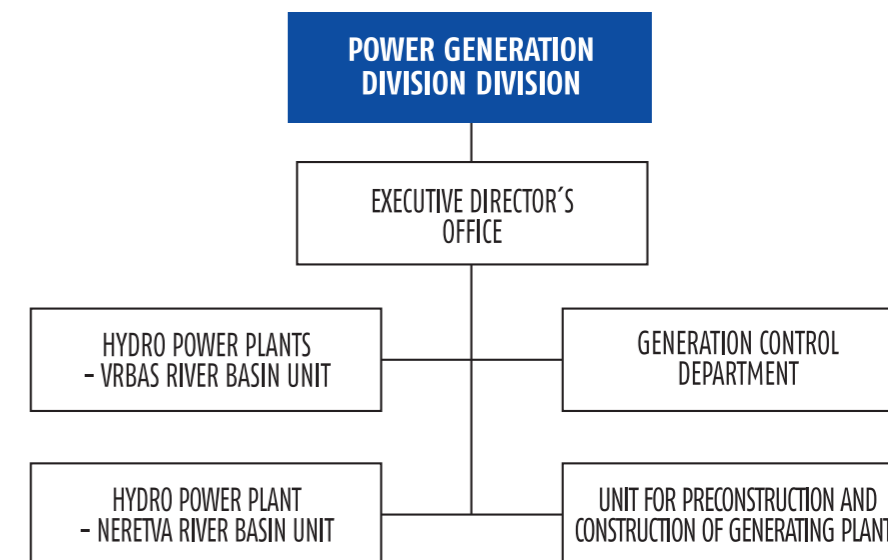
DEVELOPMENT DIVISION

The Development Division is organized and coordinated by the Executive Director. The work within its scope is carried out through the Executive Director's Office and Standards and Environmental Protection Department which consists of the Standard Unit and Environmental Protection Unit.

POWER GENERATION DIVISION

The Power Generation Division carries out the activities of preparation, planning and integration of power generation, regular and investment maintenance, research, revitalization of the existing plants, pre-construction and construction of new plants and other activities.

All power is generated in 7 hydro power plants with the total installed capacity of 852 MW and possible annual output of 2,277 GWh.



TECHNICAL CHARACTERISTICS OF GENERATING FACILITIES

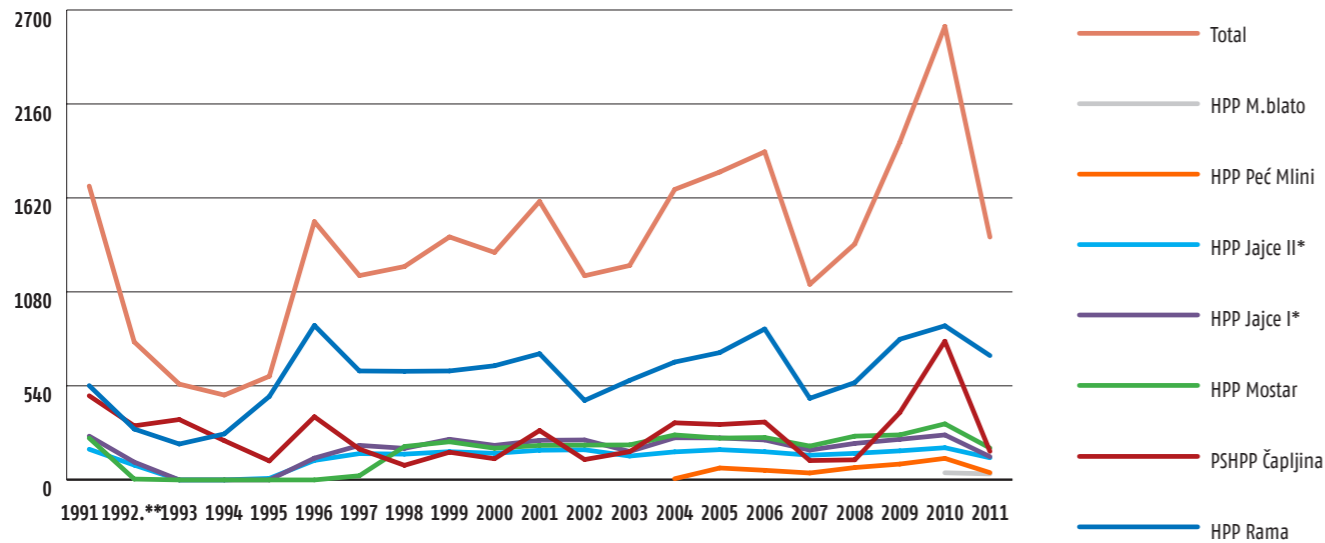
HPP	Put into operation	Capacity		Utilizable reservoir volume (hm³)	Type	Average annual energy output (GWh)
		Generator (MW)	Total (MW)			
Rama	1968	2x80	160	466	DA	710
Čapljina	1979	2x210	440	6.5	CHE	600
Mostar	1987	3x24	72	6.4	PA	310
Jajce 1	1957	2x30	60	3.3	DP	233
Jajce 2	1954	3x10	30	1.3	DP	175
Peć Mlini	2004	2x15	30	0.8	DP	82
Mostarsko blato	2010	2x30	60	1	DP	167
Total		852	852	479.45		2277

DS- diversion - storage
RPS - pumped storage
ADS - adjacent - to - dam - storage
DRR - diversion - run - of - river

POWER GENERATION IN PERIOD 1991 – 2011 (GWH)

	1991	1992**	1993	1994	1995	1996	1997	1998	1999	2000	2001
HPP Rama	540.00	291.00	205.00	263.00	478.00	885.00	624.00	622.00	624.00	653.80	722.90
PSHPP Čapljina	482.00	310.00	346.00	225.00	109.00	362.00	177.00	84.00	159.00	121.65	283.18
HPP Mostar	239.00	5.00	0.00	0.00	0.00	0.00	24.00	191.00	218.00	181.13	197.34
HPP Jajce I*	251.00	102.00	0.00	0.00	0.00	125.00	198.00	181.00	233.00	197.95	226.81
HPP Jajce II*	176.00	85.00	0.00	0.00	9.00	112.00	151.00	148.00	162.00	152.63	170.31
HPP Peć Mlini											
HPP M. blato											
Total	1,688.00	793.00	551.00	488.00	596.00	1,484.00	1,174.00	1,226.00	1,396.00	1,307.00	1,600.00

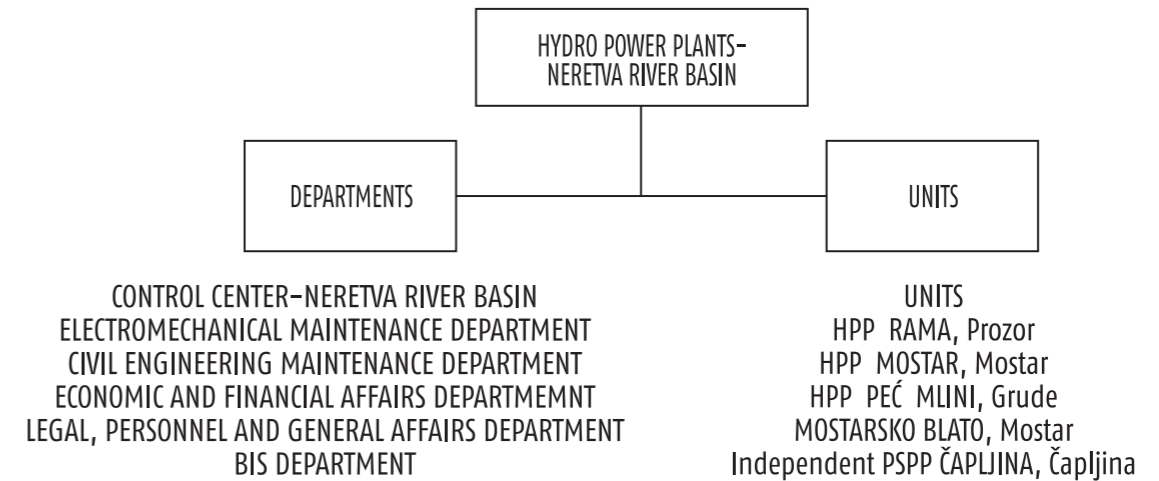
2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
455.00	570.00	674.98	729.26	864.64	467.03	557.31	805.82	882.91	712.10
117.00	162.00	327.20	317.59	331.68	111.24	115.42	386.28	794.24	163.80
199.00	200.00	257.10	239.02	242.47	193.33	250.25	257.33	320.31	182.30
229.00	163.00	241.48	240.63	229.07	170.90	209.21	232.64	257.75	133.40
173.00	137.00	161.00	173.65	161.70	141.79	152.38	166.72	184.69	127.00
		6.89	68.53	55.22	39.79	71.08	91.03	123.72	41.90
								41.05	34.70
1,173.00	1,232.00	1,668.65	1,768.68	1,884.78	1,124.00	1,355.65	1,939.82	2,604.67	1,395.20



*In the period 1992 – 1995 JP Elektroprivreda HZ HB d.d. Mostar did not operate these plants

**Power generation in the period January 1, 1992 – May 7, 1992

HYDRO POWER PLANTS–NERETVA RIVER BASIN



HPP RAMA

The hydro power plant Rama is the most important plant in the system of the hydro power plants on the Neretva river and in the system of JP Elektroprivreda HZ HB d.d. Mostar. It is located in Herzegovina- Neretva Canton. Its construction started in 1964 and completed in 1968 when it was put into operation. It is a diversion-storage plant and collects the Rama inflow water at a head of 325 m.

The plant has been in operation since its construction with short stops during the war in 1993.



HPP RAMA – TECHNICAL CHARACTERISTICS			
MAINDATA	Number of units	2	
	Installed capacity	160	MW
	Installed discharge	64	m ³ /s
	Technical minimum capacity	55	MW
	Average annual energy output	731	GWh
	Generator set efficiency	89	%
	Energy production from 1m ³ of water	0.7	kWh
	Water quantity needed for 1kWh	1.43	m ³
	Minimum discharge requirements (biological)	0	m ³ /s
	Average annual recharge	33.1	m ³ /s
	Energy value of reservoir	303	GWh
	Reservoir storage capacity	487	hm ³
	Utilizable reservoir volume	466	hm ³
Gross head – maximum	325	m	
Gross head – normal	297.5	m	
Gross head – minimum	266	m	
Tail water level	270	m a.s.l.	
GENERATORS	Type	3-phase synchronous	8-4758-16
	Manufacturer	Končar	
	Put into operation	1968	
	Nominal power	90	MVA
	Power factor cos φ	0.9	
	Maximum reactive power	55	MVA _r
	Nominal degree of utilization	97.9	%
	Stator voltage	15.65	kV
	Stator cooling system	Air	
	Rotor cooling system	Air	
TURBINES	Number of poles	16	
	Type	Francis	
	Manufacturer	Litostroj	
	Rated power	80	MW
	Technical minimum capacity	55	MW
	Installed discharge	32	m ³ /s
	Minimum discharge	29.8	m ³ /s
	Rated speed of rotation	375	rpm
	Runaway speed	660	rpm
	Nominal degree of utilization	91.6	%
DAM and RESERVOIR	Runner diameter	1900	mm
	Runner material	Stainless steel	
	Dam construction height	103	m
	Dam structural height	100	m
	Hydraulic height	96	m
	Dam height	89	m
	Crest length	230	m
	Crest elevation	598	m a.s.l.
	Dam breadth at crest	6	m
	Maximum reservoir level	596.8	m a.s.l.
	Reservoir storage capacity	515	hm ³
	Maximum operating reservoir level	595	m a.s.l.
	Minimum operating reservoir level	536	m a.s.l.
	Reservoir bed elevation	502	m a.s.l.
	Dam volume	1450	m ³
	Reinforced concrete facing area	19080	m ²
	Catchment area	550	km ²
	Reservoir area at full supply	14.74	km ²
Maximum spillway section capacity	400	m ³ /s	
Maximum bottom outlet discharge	300	m ³ /s	
Total spillway capacity	700	m ³ /s	
Flooded zone in case of dam collapse	150	km	
Maximum dam breadth at toe	305	m	
Upstream slope	1:1-1:3		
Downstream slope	1:1.5		

The HPP Rama is very important not only because of its installed capacity of 160 MW and average annual energy output of 650 GWh (about 50% annual energy output of the Company) but also because of its specific construction and natural water overflow to the dam with a reinforced concrete facing that was the largest dam in Europe.

Since its integration into the system of JP Elektroprivreda HZ HB d.d. Mostar, considerable funds have been invested in its rehabilitation. The plant is in a very good operating condition.

REHABILITATION AND MODERNIZATION

Power House

- 1994** Overhaul of Unit 1 and Unit 2. Repair of Unit 2 bell.
- 1995** Replacement of the low voltage switchgear in the power house.
- 1996** Replacement of the secondary equipment in Unit 1 and Unit 2 (control, excitation, protection and turbine regulation).
- 1998 – 1999** General overhaul of Unit 1 and Unit 2.
- 2000** Construction of the new GIS building outside the power house. Installation of the new GIS equipment in the new building. Replacement of the old oil cables between the unit transformer and new outdoor GIS with new cross-linked polyethylene cables. Adjustment for connection of new cables to the existing unit transformer.
- 2001** Replacement of the 35 kV switchgear outside the power house. Adjustment of the existing 35 kV cells to the new equipment.
- 2002** Installation of the 220/35 kV transformer outside the power house. Excavation of cable trenches, foundations and oil pit. Installation and putting the transformer into operation. The transformer is used for reserve power supply of the municipality of Prozor-Rama. Replacement of the CO₂ fire extinguisher.
- 2003** Installation and putting the video surveillance system into operation in all HPP Rama structures. Replacement of the 35 kV cables from the 35 kV switchgear to the 35 kV

portal outside the power house. Procurement and installation of a new diesel-electric generating set in the dam.

- 2004** Corrosion protection and refurbishment of the equipment for inspection and works in the penstock. General overhaul of generator 2.
- 2005** Connection of the power house, dam and office building with optical fibers.
- 2007** Rehabilitation of the 35 kV transmission line from the power house to Gračac. Overhaul of generator 2.
- 2012** Extension of the existing GIS with two new 220 kV feeders. Installation of a new busbar protection equipment. Commencement of works on refurbishment of Unit 1. Refurbishment of Unit 1 and unit transformer 1 commenced at the beginning of September 2012.

CIVIL WORKS

Surge Shaft Complex – Rehabilitation Works

- Slope**
- 1994** Drilling of three drainage holes. The depth of the holes was 75, 90 and 80 m respectively.
- 1996** Consolidation grouting of the surrounding rock. Five grout curtains were made. 39 holes with the total length of 2,434 m were drilled. Consolidation grouting of the slope. Fifteen holes with the length of 45–90 m and diameter of 76 mm were drilled. The total drilling length was 1957 m. The slope anchoring: 8 holes (A6, A7, A8, A9, A10, A11, A12 and A13) with the length of 82–112 m and diameter of 146 mm were drilled for anchors. The anchors consisted of a bundle of 18 steel strands with the diameter of 0.52".
- 1998** 4 piezometers were installed: P8 (elevation 593.95 m a.s.l.; depth 70m); P10 (elevation 552.89 m a.s.l.; depth 45m); P11 (elevation 555.20 m a.s.l.; depth 55m) and P12 (elevation 560.00 m a.s.l.; depth 55m).
- 2002** To check the rock massif stability, 2 exploratory holes were drilled: E1 (elevation 573.48 m a.s.l.) and E1 (elevation 563.18 m a.s.l.). Long-base extensometers with 5 measuring rods were installed in them.

Vertical Surge Shaft

- 1994** Rehabilitation from the surge shaft floor to the level of 540.90 m a.s.l. The total rehabilitation height was 29 m. 172 holes with the length of 60–100 cm and diameter of 22 mm were drilled. Drilling the holes for anchors and rock grouting. 590 holes with the length of 6 m and diameter of 46 mm, and 4 control holes with the length of 3.5 m were drilled. 390 anchor bars (reinforcing steel 400/500) with the length of 570 cm and diameter of 25 mm were installed. Pre-stressed anchors were installed along the whole height of the vertical shaft (P=70 kN in all anchors).
- 1998** Consolidation grouting. The cracks were repaired from the level of 544.0 to 559.0 m a.s.l. 86 holes with the diameter of 32 mm and depth of 1, 1.5 and 2 m were drilled. The total drilling length was 107 m. 42 holes with the diameter of 32 mm and depth of 3 m were also drilled. The total drilling length was 126 m.

Upper Surge Chamber

- 1994** Contact grouting of the holes with the depth of approximately 60 cm. Floor slab concreting (concrete thickness 10 cm). Slab joint sealing. Contact grouting of the buttress foundation footings.

Lower Surge Chamber

- 1994** Contact grouting with chemical mixtures. 496 holes with the length of 80–100 cm and diameter of 22 mm were drilled. Contact grouting with cement mixtures. 172 holes with the length of 60–100 cm and diameter of 22 mm were drilled. Consolidation grouting. 66 holes with the length of 200 cm and diameter of 46 mm were drilled. Additional grouting. 750 holes with the length of 20 cm and diameter of 16 mm were drilled.
- 1995** Re-profiling of the whole lower surge chamber and grouting of the surrounding rock from the headrace tunnel.

Headrace Tunnel

- 1994** Contact grouting. 160 holes with the length of 80–100 cm and diameter of 22 mm were drilled. The distance between the rings was 200 cm and the section length approximately

40 m. Consolidation grouting. 60 holes with the length of 200 cm and diameter of 46 mm were drilled. Consolidation grouting of the protection rosette. 36 holes with the length of 15 m and diameter of 56 mm were drilled. The total drilling length was 540 m.

- 1995** Contact and consolidation grouting, rehabilitation of the concrete lining damaged by concentrated water breaks and rehabilitation of the damaged concrete lining surface were carried out at selected chainages between 0+400 to 1+450. The works were included in urgent repair works.
- 1996** Works were carried out from chainage 1+085 to 1+622.50 by contact and consolidation grouting of the concrete lining and rock as well as rehabilitation of the concrete lining in places of concentrated water breaks.
- 1997** Contact grouting from chainage 1+395 to 1+600. The hole depth was 1.5 m, and diameter 46 mm and 56 mm. Cracks were repaired in 4 places by the sluice gate. The total length of the repaired cracks in the tunnel was 63 m and by the sluice gate 10 m.
- 1998** Consolidation grouting from chainage 1+085 to 3+875. The hole depth was 3, 5, 8 and 12 m, and diameter 46 mm and 56 mm. The total length of the holes drilled in 1997 and 1998 was 1,596 m. Contact grouting from chainage 1+085 to 3+875. The hole depth was 1.5 m, and diameter 46 mm and 56 mm. The total length of the holes drilled in 1997 and 1998 was 2,790 m.

Elbow

- 1994** 77 holes with the length of 80–100 cm and diameter of 22 mm were drilled in 9 rings.

Access Tunnel

- 1994** 17 holes with the length of 80–100 cm and diameter of 22 mm were drilled.

Rehabilitation Works

- 1996** Rehabilitation of the reinforced concrete facing by sand blasting and re-profiling; repair of defective concrete.
- 1998** Rehabilitation of the reinforced concrete facing. Continuation of 1996 rehabilitation of the second and third row of

slabs from elevation 580.00 to 571.00 m a.s.l. Works on protection of the dam abutments.

- 1999** Rehabilitation of the grout curtain – phase 2: test section from grout hole 161 to 168. Works were carried out in the period November 2, 1999 – January 8, 2000.
- 2003** Rehabilitation of the reinforced concrete facing. Repair and treatment of slab cracks and joints; refurbishment of the foil and protection steel sheet on the joint between the reinforced concrete facing and inspection gallery as well as repair of defective concrete along the slab edges.
- 2005** Reconstruction of the roads around the reservoir.
- 2006** Rehabilitation of the grout curtain – phase 2: access tunnel (including the fan) and road from grout hole 169 to 237.
- 2007** Rehabilitation of the seismic station in the dam (GeoSIG instruments) and meteorological station in the dam (OTT instruments); monitoring equipment automation (PIZZI instruments).

- 2008** Repair of the scaffold in the dam drainage gallery; rehabilitation of the stilling basin – phase 1; construction of three concrete blocks with energy dissipators for protection of the bed bottom below the stilling basin. Founding the structure for protection of the left bank opposite the bottom outlet as well as construction of the access road.
- 2009** Extension of the 220 kV switchgear (civil works, cable trench); clearance of the plateau outside the power house.
- 2010** Rehabilitation of the stilling basin – phase 2; construction of the structure for protection of the left bank opposite the bottom outlet; treatment of the land-slide site around the reservoir.
- 2011** Replacement of the power house ceiling lining; construction of wooden roof structures on the control and monitoring building in the dam; construction of a metal car shelter and the water storage room shelter; maintenance of roads around the hydraulic structures; rehabilitation of the grout curtain – phase 2: inspection gallery. Works were carried out in the period March – October.



PSPP ČAPLJINA

The PSPP Čapljina is located in Herzegovina – Neretva Canton. It was put into operation on November 25, 1979 and is a unique plant in the system of JP Elektroprivreda HZ HB d.d. Mostar for many reasons.

It was the first pumped storage power plant in the former Yugoslavia.

With its two 240 MVA motor-generators it contributes to reliability of the power system as well as solving the peak load problem.

In the periods of minimum water level and low load in the system, the PSPP



PUMPED STORAGE PP ČAPLJINA – TECHNICAL CHARACTERISTICS		
MAIN DATA	Number of units	2
	Installed capacity	420 MW
	Installed discharge	225 m ³ /s
	Technical minimum capacity	140 MW
	Average annual energy output	620 GWh
	Energy production from 1m ³ of water	0.52 kWh
	Water quantity needed for 1kWh	1.93 m ³
	Generator set efficiency	74 %
	Energy value of reservoir	3.4 GWh
	Reservoir storage capacity	7.12 hm ³
Utilizable reservoir volume	6.5 hm ³	
Gross head – maximum	229.2 m	
Gross head – minimum	227.7 m	
GENERATORS	Type	3-phase synchronous
	Manufacturer	AEG
	Put into operation	1979
	Nominal power	240 MVA
	Power factor cos φ	0.85
	Maximum reactive power	±160 MVar
	Nominal degree of utilization	98.5 %
	Stator voltage	15.75 kV
	Excitation voltage	344 V
	Excitation current	1910 A
Rated current	8738 A	
Stator cooling system	Air-water	
Rotor cooling system	Air	
Number of poles	20	
Speed of rotation	300 rpm	
TURBINES	Type	Francis
	Manufacturer	Riva – Calzoni
	Rated power	250 MW
	Technical minimum capacity	140 MW
	Rated speed of rotation	300 rpm
	Runaway speed	480 rpm
	Runner diameter	4500 mm
	Nominal discharge – turbine operation	112.5 m ³ /s
	Nominal discharge – pump operation	85 m ³ /s
	Upper reservoir level – maximum	231.5 m a.s.l.
Upper reservoir level – minimum	224 m a.s.l.	
Pressure tunnel length	8.11 km	
Pressure tunnel diameter	8 m	
Penstock length	310 m	
Penstock diameter	5.25 m	
Tailrace tunnel length	630 m	
Tailrace tunnel diameter	9 m	
Lower reservoir storage capacity	44 106m ³	
Length of pressure tunnel Trebinje-Hutovo	65 km	
Nominal pressure tunnel discharge	50 m ³ /s	
Maximum upper reservoir level – turbine operation	244 m a.s.l.	
Minimum lower reservoir level	2.3 m a.s.l.	
Maximum lower reservoir level	5.8 m a.s.l.	
Length of embankment along the peripheral channel	5650 m	
Length of embankment along the Krupa river	1860 m	
Length of embankment between periph.ch.-weir	1680 m	
MOTOR	Rated power	226 MW
	Factor power cos φ	0.9
	Type of flying start	Direct asynchronous

Čapljina can pump water from the lower to the upper reservoir with two vertical pumps – turbines.

It collects its catchment inflow water and the Trebišnjica water through the Popovo field. Its operation also has an impact on the lower Neretva. It is therefore necessary to take both the Trebišnjica and Neretva into consideration when the plant operation and control are planned. It was put into operation in 1979. During its construction it was the first pumped storage power plant in the former Yugoslavia.

The lower reservoir Svitava was constructed in Deransko-Svitavsko Blato with an embankment for water storage for pump operation.

REHABILITATION AND MODERNIZATION

- 1998** Replacement of the control room air-conditioning system in the power house.
- 1999** Refurbishment of Unit 1 butterfly valve.
- 2003**
 - Replacement of water discharge pumps.
 - Installation of a new sequential event recorder.
 - Replacement of 220 kV pneumatic circuit breakers in the 220 kV outdoor switchgear.
 - Replacement of the power house air-conditioning system.
 - Replacement of the power house elevator.
 - Installation of a new video surveillance and fire-alarm system.
 - Reconstruction and asphaltting the access road to the intake structure.
 - Installation of a new protection and control system for the 220 kV switchgear (SCADA system)
- 2009** Replacement of pneumatic disconnecting switches in the 220 kV outdoor switchgear and laying a 9 km optical fiber from the intake structure Hutovo to the power house; 220 kV switchgear corrosion protection.

2010 Replacement of 220 kV oil cables, excitation system, 35 kV switchgear, all measuring current and voltage transformers as well as surge arresters in the 220 kV outdoor switchgear.

2011 Replacement of the electrical protection system in motor-generators and transformers in the power house. Rehabilitation of the pressure tunnel and upper reservoir.



HPP MOSTAR

The hydro power plant Mostar is the last plant in the range of the plants constructed on the Neretva river and is located 6 km upstream of the city of Mostar in Herzegovina-Neretva Canton. It was put into operation in 1987. During the war, most of the equipment was destroyed. The whole power house was flooded. After rehabilitation of the damaged equipment, it was put into operation again in 1997.



HPP MOSTAR – TECHNICAL CHARACTERISTICS		
MAIN DATA	Number of units	3
	Installed capacity	72 MW
	Installed discharge	360 m ³ /s
	Technical minimum capacity	12 MW
	Average annual energy output	310 GWh
	Generator set efficiency	91 %
	Energy production from 1m ³ of water	0.05 kWh
	Water quantity needed for 1kWh	20 m ³ /s
	Minimum discharge requirements (biological)	50 m ³ /s
	Average annual recharge	197.4 m ³ /s
	Energy value of reservoir	0.4 GWh
	Reservoir storage capacity	10.9 hm ³
	Utilizable reservoir volume	6.4 hm ³
Gross head – maximum	24 m	
Gross head – normal	21.7 m	
Gross head – minimum	15 m	
GENERATORS	Type	3-phase synchronous 8-6546-40
	Manufacturer	Končar
	Put into operation	1987/1988
	Nominal power	30 MVA
	Power factor cos φ	0.8
	Maximum reactive power	18 MVar
	Nominal degree of utilization	97.86 %
	Stator voltage	10.5 kV
	Stator cooling system	Air
	Rotor cooling system	Air
Number of poles	40	
TURBINES	Type	Kaplan K-5
	Manufacturer	Litostroj
	Rated power	23.6 MW
	Technical minimum capacity	12 MW
	Installed discharge	120 m ³ /s
	Minimum discharge	50 m ³ /s
	Rated speed of rotation	150 rpm
	Runaway speed	405 rpm
	Nominal degree of utilization	93.5 %
	Runner diameter	4000 mm
Runner material	Steel	
DAM and RESERVOIR	Dam construction height	44 m
	Dam height	28 m
	Crest length	255.6 m
	Crest elevation	81 m a.s.l.
	Back water level	78 m a.s.l.
	Tail water level	57 m a.s.l.
	Reservoir storage capacity	10.92 hm ³
	Normal reservoir level	78 m a.s.l.
	Minimum operating reservoir level	72 m a.s.l.
	Reservoir bed elevation	53 m a.s.l.
	Dam volume	Conc.256;earthfill 110 10 ³ x m ³
	Reservoir area at full supply	1.908 km ²
	Maximum spillway section discharge	3070 m ³ /s
Maximum bottom outlet discharge	180 m ³ /s	
Total spillway capacity	3250 m ³ /s	
Flooded zone in case of dam collapse	75 km	
Width of embankment dam at crest	7 m	

REHABILITATION AND MODERNIZATION

1992 – 1996 – The plant was in the war zone.

- It was destroyed and the power house flooded.

1995 – 1996 – Preparation and reconstruction of the civil structures.

1997 –1998 – Water discharge, clearance; refurbishment of the units; reconstruction of the civil structures (reconstruction of the whole roof, construction of a new aluminum-glass facade on the part of the building with offices and the control room, reconstruction of the whole facade, construction of the bridge – road above the spillway); installation of switchgears: 110 kV SF6 switchgear, 10 kV switchgear, 0.4 kV switchgear; installation of DC power supply systems (220 and 24V DC); replacement of control cubicles and protection systems of the units and switchgears; installation of the excitation system in all units; installation of SCADA system for monitoring and control (complete automation); rehabilitation of all power transformers; refurbishment and modernization (complete automation) of the turbine regulation system; rehabilitation of servomotors (intake structure gate, spillway section gates and bottom outlet gate); installation of a new flap gate in spillway section 2; rehabilitation of cranes and radial gates in spillway sections 1 and 3 and equipment of the operating houses.

1997 – Putting Unit 3 into operation

- Putting Unit 2 into operation

1998 – Putting Unit 1 into operation

1999 – Rehabilitation of the Neretva right bank downstream of the plant (retaining wall).

- Delivery, installation and putting a new 440 kVA diesel-electric generating set into operation.

2000 – Deepening the Neretva river bed downstream of the plant (phase 1).

- Rehabilitation of the pressure tank of the fire protection system in the unit transformers.

- Clearance of the bank area around the reservoir.

2001 – Deepening the Neretva river bed downstream of the plant (phase 2).

- Monitoring system installation.

2002 – Rehabilitation of one guide vane apparatus servomotor and two lock servomotors in Unit 1.

- Replacement of the runner cap lining in all three units.

2003 – Rehabilitation of the bottom outlet regulating gate.

- Rehabilitation of the radial gate in spillway section 3.

2004 – Rehabilitation of the power house roof after a storm.

- Rehabilitation of all three storm damaged units.
- Connecting the plant with the Generation Control Center (GCC) Mostar for remote data reading and power control.

2005 – Rehabilitation of the Neretva left bank downstream of the plant.

- Protection of the structures in the left bank area at the reservoir level of 78.00 m a.s.l.
- Installation of a flap for water directing to spillway section 2 and rehabilitation of the inspection equipment.
- Repair of the sliding ring in all three units.

2006 – Refurbishment of the 2x10/2t crane.

- Test lifting the reservoir level to the maximum of 78.00 m a.s.l.

2007 – Rehabilitation of the fire damaged Unit 1.

- Construction of a warehouse in the plant area.

2008 – Replacement of battery cells in the DC power supply systems (220 and 24V DC);

- Corrosion protection of servomotors (intake structure gate, 2x16 t crane and 2x10/2 t crane).

2009 – Construction and installation of a floating dam and auxiliary floating dam.

- Lifting the reservoir level to the maximum of 78.00 m a.s.l.

2010 – Rehabilitation of the sewage system and access plateau.

- Dyke rehabilitation.
- Detailed inspection of the servomotor in the bottom outlet regulating gate.
- 35 kV switchgear detailed inspection.
- 110 kV switchgear detailed inspection.
- Installation of the 10/0.4 kV auxiliary transformer (TOP2).

- 2011**
- Circuit breaker testing and SF6 gas quality control in the 110 kV switchgear.
 - Overhaul and rehabilitation of cavitation damaged Turbine 3.
 - Refurbishment and upgrading the power house air-conditioning system.
 - Corrosion protection of some equipment of all three turbines and the cooling system.
 - Rehabilitation of the earthfill dam diaphragm.
 - Reconstruction of the power house roof skylights.
 - Rehabilitation of the left and right bank downstream of the plant damaged by 2010 flood water.
 - Modernization of SCADA system for monitoring and control.

The following is regularly carried out: preventive and predictive maintenance (detailed inspection of the units, monthly inspection of the units, inspection of the switchgears, testing of the electrical protection system, testing of transformer and turbine oils, full battery discharges, testing of insulating properties of the generators and unit transformers etc.) on a daily, three-monthly, half-yearly, yearly and several-year basis to keep the plant in a good operating condition. As this is the last plant in the range of the plants constructed on the Neretva river, it must discharge a biological minimum of 50 m³/s and has a planned 6 hour stoppage in a year.

In the period 1997 (refurbishment completion) – 2011, the energy output was 3,182 GWh and a record of 320 GWh was in 2010.



HPP PEĆ MLINI

The hydro power plant Peć Mlini is located in the municipality of Grude in West Herzegovina Canton. It collects the Tihaljina inflow water at a head of 107 m between the Imotski-Grude Field – Nuga and power house in the Petnik hill foot in Peć Mlini. The HPP Peć Mlini collects the inflow water of the Vrljka flowing in the south-west part of the Imotski-Grude Field and the inflow water of Grudsko Vrilo. The water flows to the daily reservoir with the area of 40 ha



HPP PEĆ MLINI – TECHNICAL CHARACTERISTICS			
MAIN DATA	Number of units	2	
	Installed capacity	15	MW
	Installed discharge	30	m ³ /s
	Technical minimum capacity	4.8	MW
	Average annual energy output	80	GWh
	Generator set efficiency		%
	Energy production from 1m ³ of water	0.27	kWh
	Water quantity needed for 1kWh	3.6	m ³ /s
	Minimum discharge requirements (biological)		m ³ /s
	Average annual recharge	197.4	m ³ /s
	Energy value of reservoir	0.4	GWh
	Utilizable reservoir volume	0.8	hm ³
	Gross head – maximum	120	m
	Gross head – normal	21.7	m
Gross head – minimum	15	m	
Tail water level	57	m a.s.l.	
GENERATORS	Type	3-phase synchronous	
	Manufacturer	Končar	
	Put into operation		
	Nominal power	18	MVA
	Power factor cos φ	0.8	
	Maximum reactive power		MVA _r
	Nominal degree of utilization		%
	Stator voltage	10.5	kV
	Stator cooling system	Air	
Rotor cooling system	Air		
Number of poles			
TURBINES	Type	Francis	K-5
	Manufacturer	Litostroj	
	Rated power	15.88	MW
	Technical minimum capacity	4.8	MW
	Installed discharge	120	m ³ /s
	Minimum discharge		m ³ /s
	Rated speed of rotation		rpm
	Runaway speed		rpm
	Nominal degree of utilization		%
	Runner diameter		mm
Runner material	Steel		

and capacity of 800000 m³. The plant was put into operation in 2004.

It was the first hydro power plant constructed in the former Yugoslavia after the war. During its eight-year operation, its total revenue reached the investment. With the total energy output of 500 GWh (70 GWh average annual output), this plant justified fifty-year design solutions. Its construction started in 2001 according to the design of Elektroprojekt Zagreb and took 2.5 years. It was financed out of the Company funds and credit funds (50:50). The credit for this investment amounting to BAM 62 M was repaid in 2012. The plant can be used not only for power generation but also for agriculture, flood protection and tourism.



HPP MOSTARSKO BLATO

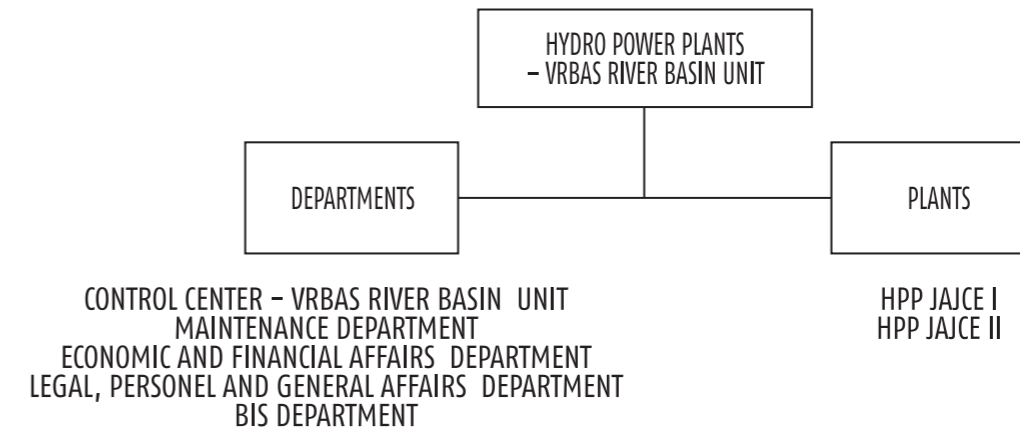
The HPP Mostarsko Blato is located south-west of Mostar and uses energy potential at the head of 176 m between Mostarko Blato and Bišće Field i.e. the Neretva river valley. The HPP Mostarsko Blato collects the Lištica catchment inflow water. This plant is used not only for power generation but also for the field flood protection. Its construction started in 2006 and investment amounted to BAM 140 M.

The plant consists of 9 parts: reservoir, intake structure, headrace tunnel, surge tank and valve chamber, penstock, power house, tailrace basin, enclosed flood channel and linking transmission line.



HPP MOSTARSKO BLATO – TECHNICAL CHARACTERISTICS			
MAIN DATA	Number of units	2	
	Installed capacity	60	MW
	Installed discharge	40	m ³ /s
	Technical minimum capacity	10	MW
	Average annual energy output	167	GWh
	Generator set efficiency	90.89	%
	Energy production from 1m ³ of water	0.416	kWh
	Water quantity needed for 1kWh	2.4	m ³
	Minimum discharge requirements (biological)	-	m ³ /s
	Average annual recharge	14	m ³ /s
	Energy value of reservoir	0.4	GWh
	Reservoir storage capacity	1.0	hm ³
	Utilizable reservoir volume	0.96	hm ³
Gross head - maximum	181	m	
Gross head - normal	178.2	m	
Gross head - minimum	173.5	m	
Tail water level	47	m a.s.l.	
GENERATORS	Type	3-phase synchronous	
	Manufacturer	Končar	
	Put into operation	2010	
	Nominal power	35.3	MVA
	Power factor cos φ	0.85	
	Maximum reactive power	18	MVA _r
	Nominal degree of utilization	98.1	%
	Stator voltage	10.5	kV
	Stator cooling system	Water	
Rotor cooling system	Air		
Number of poles	12		
TURBINES	Type	FvT 1.43/160-15	
	Manufacturer	Litoštroj	
	Rated power	29.960	MW
	Technical minimum capacity	10	MW
	Installed discharge	18	m ³ /s
	Minimum discharge	7.2	m ³ /s
	Rated speed of rotation	500	rpm
Runaway speed	850	rpm	
Nominal degree of utilization	93.5	%	
RESERVOIR	Back water level	224.5	m a.s.l.
	Reservoir storage capacity	1.2	hm ³
	Maximum operating reservoir level	231.50	m a.s.l.
	Normal operating reservoir level	223.50	m a.s.l.
	Minimum operating reservoir level	221.50	m a.s.l.
	Reservoir bed elevation	219.00	m a.s.l.
Maximum spillway section discharge	20	m ³ /s	
Total spillway capacity	60	m ³ /s	

HYDRO POWER PLANTS – VRBAS RIVER BASIN UNIT



HPP JAJCE I

The hydro power plant Jajce I is located on the left bank of the Vrbas river by the road Jajce- Banjaluka in Middle Bosnia Canton. It is 7 km far from the town of Jajce. It is a diversion plant and collects the inflow water of the Big Pliva lake which is situated at the level of 428 m asl.

The plant was put into operation in 1957. It was damaged in the war. The equipment was destroyed due to a flood in the turbine area and fire.



HPP JAJCE I - TECHNICAL CHARACTERISTICS			
MAIN DATA	Number of units	2	
	Installed capacity	60	MW
	Installed discharge	74	m ³ /s
	Technical minimum capacity	17	MW
	Average annual energy output	220	GWh
	Generator set efficiency	90	%
	Energy production from 1m ³ of water	0.23	kWh
	Water quantity needed for 1kWh	4.23	m ³
	Minimum discharge requirements (biological)	3	m ³ /s
	Average annual recharge	44	m ³ /s
	Energy value of reservoir	0.51	GWh
	Reservoir storage capacity	24	hm ³
	Utilizable reservoir volume	4.2	hm ³
Gross head - maximum	98.6	m	
Gross head - normal	98.4	m	
Gross head - minimum	88.4	m	
Tail water level	328.5	m a.s.l.	
GENERATORS	Type	3-phase synchronous	
	Manufacturer	Končar	
	Put into operation	1957	
	Nominal power	36	MVA
	Power factor cos φ	0.8	
	Maximum reactive power	20	MVA _r
	Nominal degree of utilization	91.5 %	
	Stator voltage	10.5	kV
	Stator cooling system	Air (water cooled)	
	Rotor cooling system	Air (water cooled)	
Number of poles	20		
TURBINES	Type	Francis	
	Manufacturer	KMW	
	Rated power	30	MW
	Technical minimum capacity	20	MW
	Installed discharge	35	m ³ /s
	Minimum discharge	12	m ³ /s
	Rated speed of rotation	300	rpm
	Runaway speed	540	rpm
	Nominal degree of utilization	94 %	
	Runner diameter	2230/2190/2050 mm	
Runner material	Ch-Ni 13-4		
DAM and RESERVOIR	Minimum operating reservoir level	425.8	m a.s.l
	Maximum operating reservoir level	427.1	m a.s.l
	Headrace tunnel length	5700	m
	Headrace tunnel diameter	5.4	m
	Maximum flow through headrace tunnel	60.8	m ³ /s
	Maximum flow velocity through headrace tunnel	2.64	m/s
Average net head	92.5	m	

REHABILITATION AND MODERNIZATION

- 1995 – 1996** Rehabilitation after a fire and preparation for the plant refurbishment .
- 1998** First refurbishment of the units: replacement of the turbine regulation system; replacement of the control, protection and measuring equipment including the 0.4kV auxiliary switchgear as well as replacement of the 220V DC power supply system.
- 1999** Installation of SCADA system for monitoring, control and measuring. Reconstruction of the 100+5 t crane.
- 2000** Replacement of the 110 kV and 35 kV switchgear including all protection, control and measuring equipment.
- 2001** Overhaul of both units; installation of a new diesel-electric generating set; replacement of the CO2 fire extinguisher; installation of a new fire-alarm system.
- 2005** Replacement of the excitation system in both units with ABB UNITROL 5000 static excitation system with two fully controlled thyristor bridges and regulator; replacement of the transformers for excitation and electrical braking of generators.
- 2006** General overhaul of the units including rehabilitation of all bearings; replacement of six single phase transformers with two 10.5/110 kV three phase unit transformers.
- 2007** Replacement of the pressure vessel in the surge tank valve; the Control Center – Vrbas River Basin Unit was established and put into operation.
- 2009** Replacement of two 220V stationary batteries.
- 2010** Upgrading and adjustment of the intake structure gate equipment for data transmission to the control room, replacement of one 35/110 kV regulating transformer.
- 2011** Replacement of another 35/110 kV regulating transformer.



HPP JAJCE II

The hydro power plant Jajce II was constructed on the Vrbas river 17 km downstream of the town of Jajce in Middle Bosnia Canton. It has Francis turbines and three 3-phase synchronous generators with the nominal power of 12.5 MVA and stator voltage of 6 kV. The turbine installed discharge is 27 m³/s and normal gross head 46 m. The average annual energy output is 175 GWh. It was put into operation in 1954.



HPP JAJCE II – TECHNICAL CHARACTERISTICS			
MAIN DATA	Number of units	3	
	Installed capacity	30	MW
	Installed discharge	79.8	m ³ /s
	Technical minimum capacity	5.5	MW
	Average annual energy output	175	GWh
	Generator set efficiency	81	%
	Energy production from 1m ³ of water	0.103	kWh
	Water quantity needed for 1kWh	9.7	m ³
	Minimum discharge requirements (biological)	0	m ³ /s
	Average annual recharge	67	m ³ /s
	Energy value of reservoir	0.13	GWh
	Reservoir storage capacity	2.1	hm ³
	Utilizable reservoir volume	1.3	hm ³
Gross head – maximum	49	m	
Gross head – normal	46	m	
Gross head – minimum	39	m	
Tail water level	279.8	m a.s.l.	
GENERATORS	Type	3-phase synchronous	
	Manufacturer	Končar	
	Put into operation	1954	
	Nominal power	12.5	MVA
	Power factor cos φ	0.8	
	Maximum reactive power	7.5	MVA _r
	Nominal degree of utilization	97 %	
	Stator voltage	6.3	kV
	Stator cooling system	Air (water cooled)	
	Rotor cooling system	Air	
Number of poles	24		
TURBINES	Type	Francis	
	Manufacturer	Voith + Litostrój	
	Rated power	10	MW
	Technical minimum capacity	5.5	MW
	Installed discharge	26.6	m ³ /s
	Minimum discharge	14.6	m ³ /s
	Rated speed of rotation	250	rpm
	Runaway speed	355	rpm
	Nominal degree of utilization	90 %	
	Runner diameter	1460	mm
Runner material	Stainless steel		
DAM and RESERVOIR	Maximum operating reservoir level	328.5	m a.s.l.
	Minimum operating reservoir level	321.5	m a.s.l.
	Disastrous water level	331.1	m a.s.l.
	Headrace tunnel length	2804	m
	Headrace tunnel diameter	5.5	m
	Average net head	42.5	m
Installed discharge for one unit	26.6	m ³ /s	

REHABILITATION AND MODERNIZATION

- 2000 – 2001** Replacement of the electrical protection system of the units and transmission line; installation of a new 35 kV switchgear.
- 2001** Replacement of the surge tank hydraulic unit.
- 2003** Installation of a new control, inspection and regulation equipment of the units.
- 2004** Rehabilitation of the 35 kV transmission line.
- 2005** Replacement of the DC power supply system.
- 2006** Replacement of the 35 kV switchgear equipment; emptying the reservoir; replacement of the old excitation system (analog voltage regulator) with a modern excitation system (digital voltage regulator).
- 2005, 2006 and 2010** General overhaul of all three units.
- 2007** Installation of the hydraulic intake structure cleaning machine and automated dam monitoring equipment.
- 2008** Replacement of the air-conditioning system and installation of a new moisture removal system.

- 2009** Rehabilitation and automation of the crane; oil drying and filtration, and drying the unit transformer active part.
- 2009 – 2012** Replacement of the house transformers.
- 2008 – 2010** Overhaul of the diversion tunnel auxiliary gate and main gates.
- 2011** Overhaul of the intake structure gate; rehabilitation of the access road.

All three unit transformers are planned to be replaced. For extension of the plant's lifespan and its better power utilization, design documents for refurbishment of the plant is prepared. The refurbishment would include replacement of the equipment in the plant (turbine, generator, cooling system...), increasing the dam height by 3 m and construction of a small hydro power plant on the diversion tunnel.

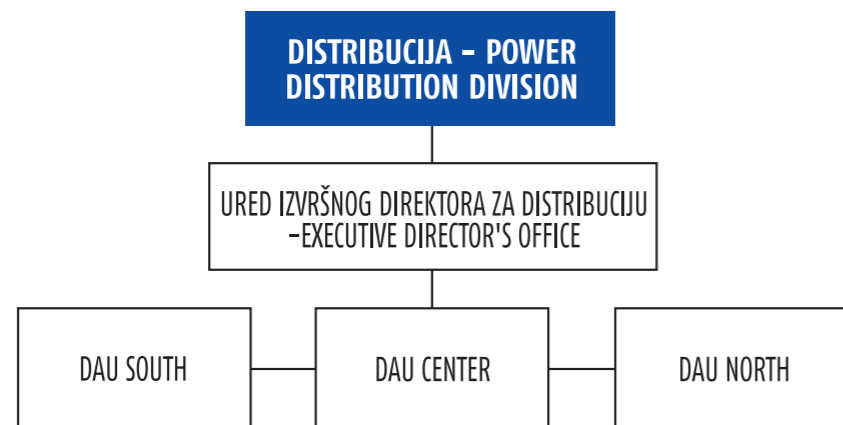


POWER DISTRIBUTION DIVISION

The Power Distribution Division carries out the activities of power distribution to customers, exploitation, regular maintenance (inspection, control and overhaul) of lines and facilities and investment maintenance of distribution lines and facilities, activities related to the telecommunication and information system and other activities according to the Rulebook on Internal Organization of JP Elektroprivreda HZHB d.d. Mostar.

The main organizational parts of the Division are: Executive Director's Office, Distribution Area Unit SOUTH, Distribution Area Unit CENTER and Distribution Area Unit NORTH.

The Division operates and maintains 11,668 km long 10, 20 and 0,4 kV distribution overhead and underground networks, and a 285 km long 35 kV grid. The total installed power of the 35/10(20) kV substations is 85,5 MVA and of 10(20)/0,4 kV is



TECHNICAL DEPARTMENT METERING DEPARTMENT DEVELOPMENT DEPARTMENT ECONOMIC AFFAIRS DEPARTMENT LEGAL, PERSONNEL AND GENERAL AFFAIRS -DEPARTMENT BIS DEPARTMENT CONTROL AND METERING DEPARTMENT Operating and working units		
UNIT MOSTAR OPERATING UNITS Mostar Doljani Čapljina Ravno	UNIT GRUDE OPERATING UNITS Grude Široki Brijeg Posušje Ljubuški	UNIT LIVNO OPERATING UNITS Livno Drvar Grahovo Glamoč Tomislavgrad Kupres
TECHNICAL DEPARTMENT METERING DEPARTMENT DEVELOPMENT DEPARTMENT ECONOMIC AFFAIRS DEPARTMENT LEGAL, PERSONNEL AND GENERAL AFFAIRS DEPARTMENT BIS DEPARTMENT CONTROL AND METERING DEPARTMENT Operating and working units		
OPERATING UNITS Novi Travnik Nova Bila Kiseljak Vareš Usora Busovača Uskoplje Kreševo Zepče Dobretići Vitez Jajce Fojnica Novi Seher		
TECHNICAL DEPARTMENT METERING DEPARTMENT DEVELOPMENT DEPARTMENT ECONOMIC AFFAIRS DEPARTMENT LEGAL, PERSONNEL AND GENERAL AFFAIRS DEPARTMENT CONTROL AND METERING DEPARTMENT Operating and working units		
OPERATING UNITS Orašje Domaljevac Odžak		

DISTRIBUTION FACILITIES

Distribu- tion Area Unit:	Substations									Lines								
	TS X/10(20) kV		TS 35/10(20) kV		TS 35/04 kV		10(20) kV	TS 10(20)/0,4 kV		SN 35 kV lines			SN 10(20) kV lines			NN 0,4 kV lines		
	Number of substations	Installed power	Number of substations	Installed power	Number of substations	Installed power	Switchgear	Number of substations	Installed power	Length of overhead lines	Length of underground lines	Total length	Length of overhead lines	Length of underground lines	Total length	Length of overhead lines	Length of underground lines	Total length
	N	[MVA]	N	[MVA]	N	[MVA]	N	N	[MVA]	[km]	[km]	[km]	[km]	[km]	[km]	[km]	[km]	[km]
1	2	3	4	5	6	7	8	9	10	9	10	11=9+10	12	13	14=12+13	15	16	17=15+16
DAU South	0	0	10	31	0	0	5	2,472	724.025	202.172	1.055	203.227	2,333.196	642.888	2,976.084	4,695.920	540.295	5,236.215
DAU Center	0	0	3	18,5	3	1,65	0	743	228.350	58.970	2.030	61.000	585.910	115.850	701.760	1,850.740	125.170	1,975.910
DAU North	0	0	3	36	0	0	0	302	84.710	20.000	1.000	21.000	226.500	52.700	279.200	476.000	23.500	499.500
Total	0	0	16	85.5	3	1.65	5	3,517	1,037.085	281.142	4.085	285.227	3,145.61	811.44	3,957.04	7,022.660	688.965	7,711.625

1,037 MVA. The total number of substations is 3,543. There are 991 employees who are responsible for quality power distribution to customers.

The objective of the Division is continuous improvement of the distribution network and its operation through reconstruction and construction of facilities, and electrification of the areas of its responsibility.

In the first year of its operation the activities of the Power Distribution Division were focused on reconstruction and rehabilitation of the facilities damaged and destroyed in the war. The rehabilitation and reconstruction were financed out of our own funds and funds provided by international organizations in cooperation with local municipalities to ensure conditions

for return of refugees and displaced persons. To ensure optimal working and operating conditions there were reconstructed and constructed distribution facilities and network, office buildings and warehouses.

THIRD ELECTRIFICATION PROJECT

Through the Third Electrification Project, from November, 2004 to August, 2006, there were reconstructed distribution facilities and the investment was estimated at around BAM 12.5 mil. The Project included eight 10(20)/0.4 kV transformer substations of prefabricated concrete type, twenty nine 10(20)/0.4 kV tower-mounted transformer substations, around 55 km long 10(20) kV

and 35 kV MV overhead and underground lines of non voltage level, and around 200 km long 0.4 kV LV networks with house connections.

DISTRIBUTION FACILITIES FINANCED OUT OF EBRD LOAN

In the period from December, 2006 to March, 2009, JP Elektroprivreda HZHB d.d. Mostar invested around BAM 33 mil in reconstruction and construction of 212 distribution facilities out of the loan funds provided by the European Bank for Reconstruction and Development (EBRD). These funds were used for construction of two 35/x kV substations and one 35 kV line, reconstruction and construction of a large number of 10(20) kV lines with steel lattice towers, 10(20) kV overhead and underground networks, 10(20) kV switchgears and the transformation switchgears, and 10(20)/0,4 kV substations of both types, concrete housed and tower-mounted. LV overhead and underground networks were constructed and reconstructed. There were installed 58 remotely controlled disconnecting switches (SECTOS).



The AMR center was procured and implemented, and 3000 modern electronic meters with additional equipment were procured (around BAM 4 mil).

FACILITIES FINANCED OUT OF EIB LOAN

In the period from July, 2006 to March, 2011, JP Elektroprivreda HZHB d.d. Mostar invested around BAM 21 mil in reconstruction and construction of 225 distribution facilities out of the loan funds provided by the European Investment Bank (EIB). These funds were used for reconstruction and construction of a large number of 10(20) kV lines with steel lattice towers, 10(20) kV overhead and underground networks, reconstruction of several switchgears, reconstruction and construction of a large number of 10(20)/0,4 kV substations of both types, concrete housed and tower-mounted. LV overhead and underground networks many kilometres long were constructed and reconstructed. There were installed 10 remotely controlled disconnecting switches (SECTOS).

AUTOMATIC METER READING PROJECT – AMR SYSTEM

New technological solutions of electronic meters enable application of modern ways of communication and acceptance of power quality parameters, storage and analysis without a person approaching a meter.

The project enables: automatic meter reading, remote cut in and cut off, cut off control, power quality control, customers' consumption control, easier monitoring of losses, detection of meter manipulation, personal consumption monitoring through the Internet.

The reading costs are reduced, losses are reduced, and quality parameters monitoring is enabled. The process of cutting off is easier and more efficient, and the process of billing is faster.

Installation of remote communication meters as well as connecting to the automatic meter reading (AMR) system are

continued. A large number of old meters was replaced with new ones with customers whose power consumption is registered at the MV level. The unified base of remotely read meters is increasing, and at the moment it has measuring data for around 10 000 meters.

In addition to regular activities on distribution loss reduction through different types of control, meter are continuously relocated and remote reading system is developed for all consumption classes.

SCADA SYSTEM PROJECT

To ensure reliable power supply in the distribution system JP Elektroprivreda HZHB d.d. Mostar has started automation of the distribution network by introducing telecommunication and information technologies in the process of the system supervision and control.

Considerable funds were invested to modernize the primary and secondary equipment, and to extend the telecommunication network to be prepared for introduction of new technologies in the process of the distribution system automatic control.

New facilities were constructed and a large number of the existing facilities were reconstructed at the 35 and 10 kV voltage level. The total length of installed optical fiber cables was significantly increased, and there were installed 68 remotely controlled switches. To use their functions properly there are three systems of automatic control (mini SCADA) in the distribution dispatch centers in Mostar, Grude and Livno Units.

As a part of preparation JP Elektroprivreda HZHB d.d. Mostar has started the process of procurement of design documents for preparation of the conceptual, analytical and technical solution for the SCADA/DMS/OMS system with the communication equipment. The design documents will give a detailed description of technical possibilities of remote control application in the distribution system of JP Elektroprivreda HZHB d.d. Mostar; a detailed description of the existing remote control equipment; and a

detailed description of the equipment upgrading and existing system extension for the desired functionality of the remote control system.

For this purpose there was signed the contract with KfW Bank valued at BAM 12.5 mil of loan funds and BAM 2 mil of grant funds. The implementation should be completed within the next five years.

GIS/TIS SYSTEM PROJECT

Taking into consideration the importance of establishing a unified, technical and spatial database necessary for regular operation, analysis and reporting on all information related to power infrastructure and all events related to the power infrastructure, JP Elektroprivreda HZHB d.d. Mostar has started implementation of the geographical information system / technical information system (GIS/TIS) through the Power Distribution Division. The implementation of this system will enable: establishment of the unified technical and spatial database on power facilities, centralization and unification of data for power infrastructure, establishing conditions for the system application with the following objectives:

- Network planning and development
- Network planning and maintenance
- Network analysis
- Network supervision and control
- Managing the documents that are related to the condition and events in the power network and facilities, process standardization, maintenance and modernization of the quality system, data availability and transparency, and operating cost reduction.

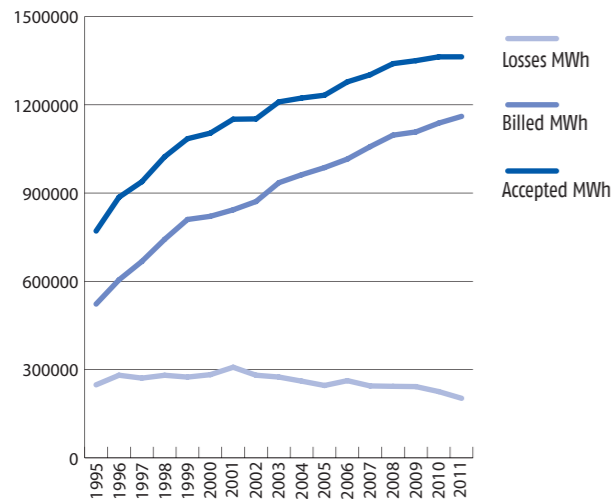


DISTRIBUTION AREA DEVELOPMENT STUDIES

In cooperation with the eminent institutes from neighboring countries there are prepared or being prepared distribution area development studies, for the period up to 2020, based on *The Integral Study of Development 2006 – 2010 with Projection to 2020*. In addition to this study, the following studies are being prepared:

- *Prospects and technical- economic conditions for distribution network transition to 20 kV voltage*
- *Plan for distribution network transition from 10 kV to 20 kV voltage in Grude Unit*

Lately, there have been a lot of applications for the distribution network connection of the facilities that will generate power from renewable energy sources. Taking into consideration the importance of the situation and expecting the expansion in this area, the Distribution Division ordered the study: *Impact of Distributed Generation (of Power Plants) on Distribution Network*, which shall be completed in early 2013.



OTHER

The Distribution Division fulfilled all the obligations from *Memorandum on Electricity Distribution to Returnees* and *Memorandum of Understanding and Cooperation for Electrification of Locations/ Buildings of Returnees* signed by JP Elektroprivreda HZHB d.d.

The Distribution Division does its best to provide good service to its customers, and to enable impartial and nondiscriminatory approach to the distribution network, taking into consideration Provisions of the European Standard EN 50160 and electricity market opening in 2015.

DISTRIBUTION NETWORK LOSSES

Year	Accepted MWh	Billed MWh	Losses MWh	Losses %
1995	771,121	522,848	248,273	32.20
1996	885,803	604,981	280,822	31.70
1997	938,448	667,478	270,970	28.87
1998	1,023,444	742,774	280,670	27.42
1999	1,084,719	810,187	274,532	25.31
2000	1,103,685	820,958	282,727	25.62
2001	1,150,943	843,024	307,919	26.75
2002	1,152,009	871,189	280,820	24.38
2003	1,209,827	935,176	274,651	22.70
2004	1,222,955	962,276	260,679	21.32
2005	1,232,561	986,557	246,004	19.96
2006	1,277,918	1,015,530	262,388	20.53
2007	1,302,239	1,057,824	244,415	18.77
2008	1,339,851	1,096,773	243,078	18.14
2009	1,349,972	1,107,783	242,189	17.94
2010	1,362,930	1,137,670	225,260	16.53
2011	1,363,060	1,160,624	202,436	14.85

There are no data for the war period from 1991 to 1993.

REALIZED INVESTMENT 1994 – 2011

After the war, distribution facilities were reconstructed and constructed to normalize the life and establish conditions for the economic growth and development. In addition to our own funds, considerable funds were granted by the USA Government, the Governments of Great Britain, Spain, Japan, Canada, Austria and Italy.

There were also loan funds provided by the World Bank (WB), and European Bank for Reconstruction and Development (EBRD).

REALIZED INVESTMENT 1994 – 2011

	Own funds	Loans	Grants	Third parties (municipalities etc.)	Total
1994					2,195,813.00
1995					6,948,648.00
1996	4,077,547.00		2,038,770.00	119,104.00	6,235,421.00
1997	9,367,173.00		1,825,173.00	1,296,513.00	12,488,859.00
1998	8,753,043.00		8,430,757.00	1,458,119.00	18,641,919.00
1999	9,699,892.00	410,402.00	11,555,009.00	802,900.00	22,468,203.00
2000	8,972,803.00	955,895.00	9,359,407.00	240,373.00	19,528,478.00
2001	6,574,993.00	109,301.00	16,085,314.00	31,826.00	22,801,434.00
2002	4,242,765.00	10,669,275.00		64,083.00	14,976,123.00
2003	3,742,683.00	2,575,148.00		974,838.00	7,292,669.00
2004	5,816,042.00	3,849,567.00		428,073.00	10,093,682.00
2005	19,931,060.00			1,720,494.00	21,651,554.00
2006	6,202,632.00	4,509,230.00		145,000.00	10,856,862.00
2007	10,151,476.00	17,039,680.00		57,480.00	27,248,636.00
2008	10,339,708.00	15,239,228.00		232,243.00	25,811,179.00
2009	8,190,774.00	11,141,137.00		94,500.00	19,426,411.00
2010	7,580,289.00	19,625,281.00			27,205,570.00
2011	24,598,283.00	1,184,190.00			25,782,473.00
TOTAL	148,241,163.00	87,308,334.00	49,294,430.00	7,665,546.00	301,653,934.00

There are no data for the war period from 1991 to 1993.



POWER SUPPLY DIVISION

ORGANIZATIONAL STRUCTURE

The Power Supply Division was founded in 2006 as a separate division in JP Elektroprivreda HZHB d.d. Mostar.

Its activities are the most exposed to the public, and its basic business principles are teamwork and impartial communication with customers. Those principles are a condition for good business results, i.e. high collection rate

The Power Supply Division carries out the following activities:

- Power supply to tariff customers
- Data processing for power supply
- Settlement
- Billing
- Collection

On December, 31, 2011 there were 373 employees who are responsible for quality supply to customers.

In 2012 the Division provided all customers with a quality and reliable power supply service.

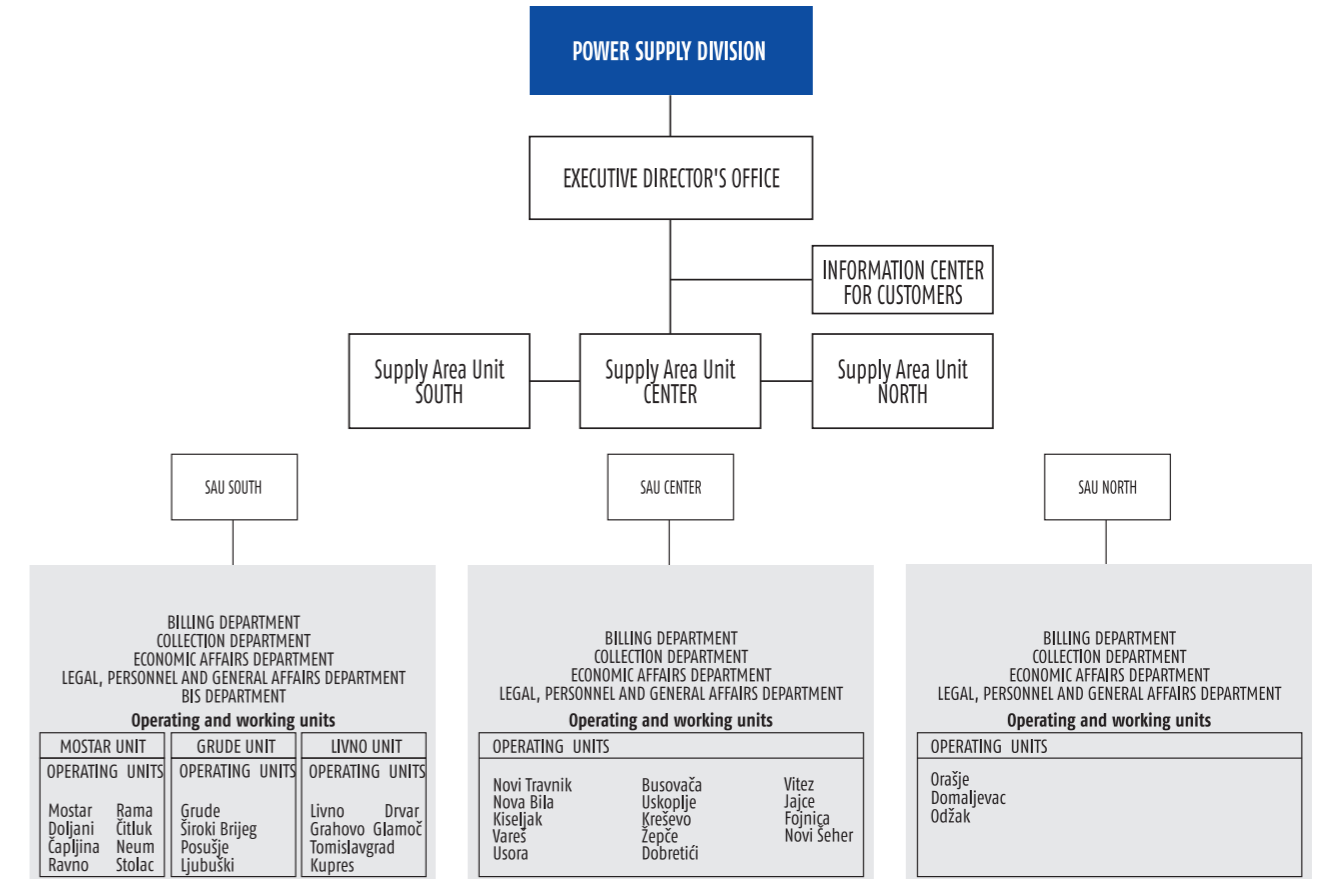
The main organizational parts of the Division are:

- Executive Director's Office
- Customer Relations Unit
- Supply Area UNIT South
- Supply Area UNIT Center
- Supply Area UNIT North

Supply Area Units carry out the activities through departments, services, and operating and working units.

Each Supply Area Unit has the following departments:

- Billing Department
- Collection Department
- Economic Affairs Department
- Legal, Personnel and General Affairs Department



HEP BILLING SYSTEM

In the area of information technologies, the Power Supply Division follows the requirements of contemporary business running and, for billing purposes, uses the HEP Billing System and Business Reporting System – biNs2.

The HEP Billing system supports the processes of billing and collection. It was implemented in 2006 in all operating units of the Power Supply Division. It was built in three-tier architecture,

and on the Oracle platform (*Oracle Database Server 9 and R2 and Oracle Application Server*)

The application was written in the Oracle Forms language and the problem with the production data safety was solved through the standard safety functionality of the Oracle base.

The HEP Billing is upgraded every year according to the users' needs. This system represents the important step in

modernization and improvement of the business running in the scope of the Power Supply Division's activities. All business processes are computerized; decentralization of the old system is avoided; better working efficiency is achieved; and billing and collection monitoring is improved.

BUSINESS REPORTING SYSTEM – BINS2

The Business Reporting System – biNs2 was implemented in early 2008, and it represents upgrading of the HEP Billing system with the reporting module. Its base is *Oracle BI Standard Edition* platform. Its flexibility enables fast and efficient data use while its performance contributes to cost-effectiveness and efficiency of the activities.

RELATIONS WITH CUSTOMERS

In line with the Power Supply Division business policy, customers are the center of attention and the whole business strategy is adjusted to them. Lately, there has been intensified and improved communication with customers by developing all types of support, primarily by improving the activities of informing customers and the quality of correspondence in writing and of electronic and telephone correspondence.

ON-LINE SERVICE – ELECTRICITY BILL CHECKING

Considering the customers' needs, JP Elektroprivreda HZHB d.d. Mostar introduced in 2010 on-line service *Electricity Bill Checking* which offers a fast and simple approach to information.

This service is cost free and is intended for natural persons, i.e. customers of JP Elektroprivreda HZ HB d.d. Mostar, from the consumption class – households.

The Internet approach offers the check of their electricity consumption, meter reading, payment in the previous 12 months, and debt check.

Introduction of this service was positively received, especially with customers who live abroad and now can get information faster and more easily.



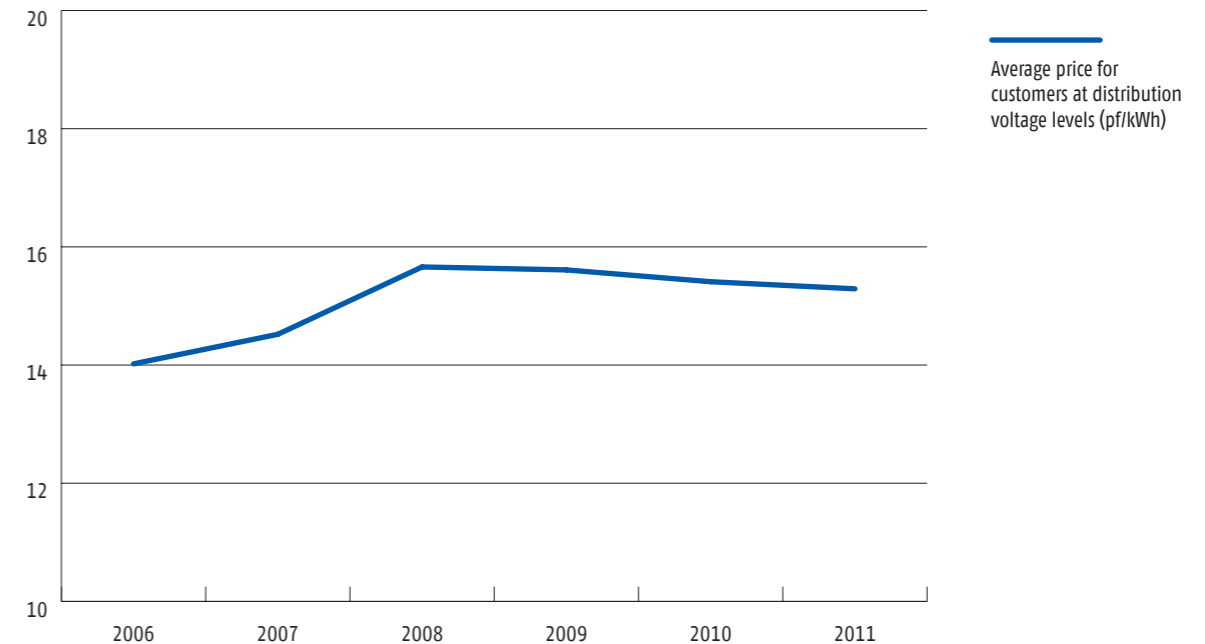
INFORMATION CENTER FOR CUSTOMERS

Information Center for Customers has operated since July,1, 2011. It enables the contact with customers and improves relations with them through providing information in time.

The operation of this center is based on: providing precise and clear information, helping and directing customers, reacting to their needs as soon as possible, etc. All communication is registered and data on submitted and resolved customers' requests are analyzed and processed. Via toll-free telephone number

080 080 001 customers are able to contact directly with our agents on each working day from 07.00 to 15.30, and get all necessary information and explanations. In addition, customers can also leave their messages in voice box 24/7. These messages are processed as fast as possible. Customers can also send e-mail message to the following address: opskrba@ephzhb.ba, to give their comments, suggestions, ideas or commendations, or to report unauthorized consumption.

AVERAGE PRICE FOR CUSTOMERS AT DISTRIBUTION VOLTAGE LEVELS (pf/kWh)



Year	2006	2007	2008	2009	2010	2011
Average price for customers at distribution voltage levels (pf/kWh)	14.02	14.52	15.66	15.61	15.41	15.29

NUMBER OF CUSTOMERS BY CLASS

	2006	2007	2008	2009	2010	2011	% 2011
35 kV	3	3	3	3	3	3	0.00
10 kV	100	111	119	125	140	151	0.08
Households	166,518	165,777	167,101	168,736	169,851	171,156	91.21
Other consumption	14,920	14,636	14,870	14,847	14,689	14,683	7.83
Public lightning	1,232	1,323	1,474	1,484	1,611	1,649	0.88
Total	182,773	181,850	183,567	185,195	186,294	187,642	100.00

NUMBER OF CUSTOMERS BY SUPPLY AREA UNIT

	2006	2007	2008	2009	2010	2011	% 2011
SAU South	120,159	118,406	119,371	120,387	121,063	122,010	65.02
SAU Center	45,974	46,609	47,190	47,542	47,937	48,242	25.71
SAU North	16,640	16,835	17,006	17,266	17,294	17,390	9.27
Total	182,773	181,850	183,567	185,195	186,294	187,642	100



IV HUMAN RESOURCES

On December 31, 2011 JP Elektroprivreda HZHB d.d. Mostar had 1.880 employees among whom more than 500 employees hold university and college degrees.

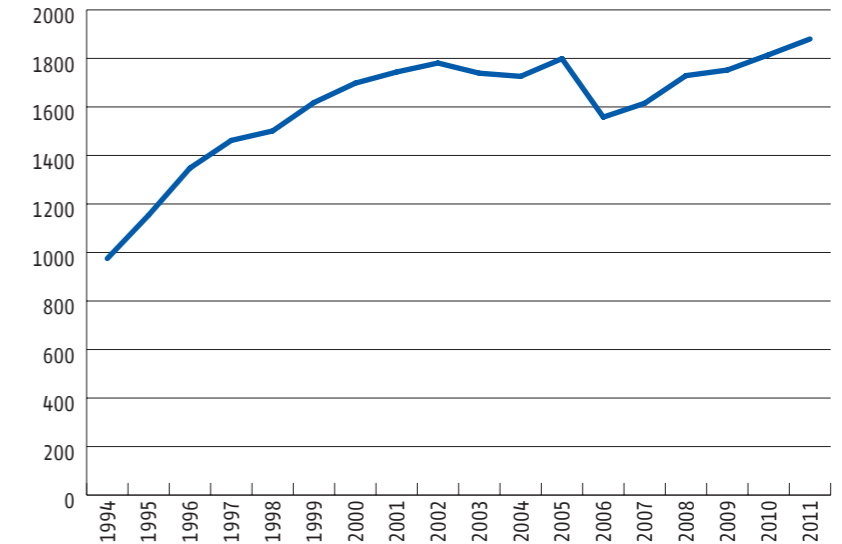
We keep on employing trainees for experience acquiring as well as awarding scholarships to university students, and educating employees through different types of training.

This way of resources management enables better harmonization of work with modern and profitable business running. The end result is successful execution of working assignments.



Number of Employees as of December, 31

Year	Number of Employees as of December, 31
1994	975
1995	1,154
1996	1,348
1997	1,462
1998	1,501
1999	1,618
2000	1,698
2001	1,744
2002	1,781
2003	1,739
2004	1,726
2005	1,799
2006	1,558
2007	1,615
2008	1,729
2009	1,752
2010	1,815
2011	1,880



There are no data for the war period from 1991 to 1993

EMPLOYEE AGE STRUCTURE IN 2011

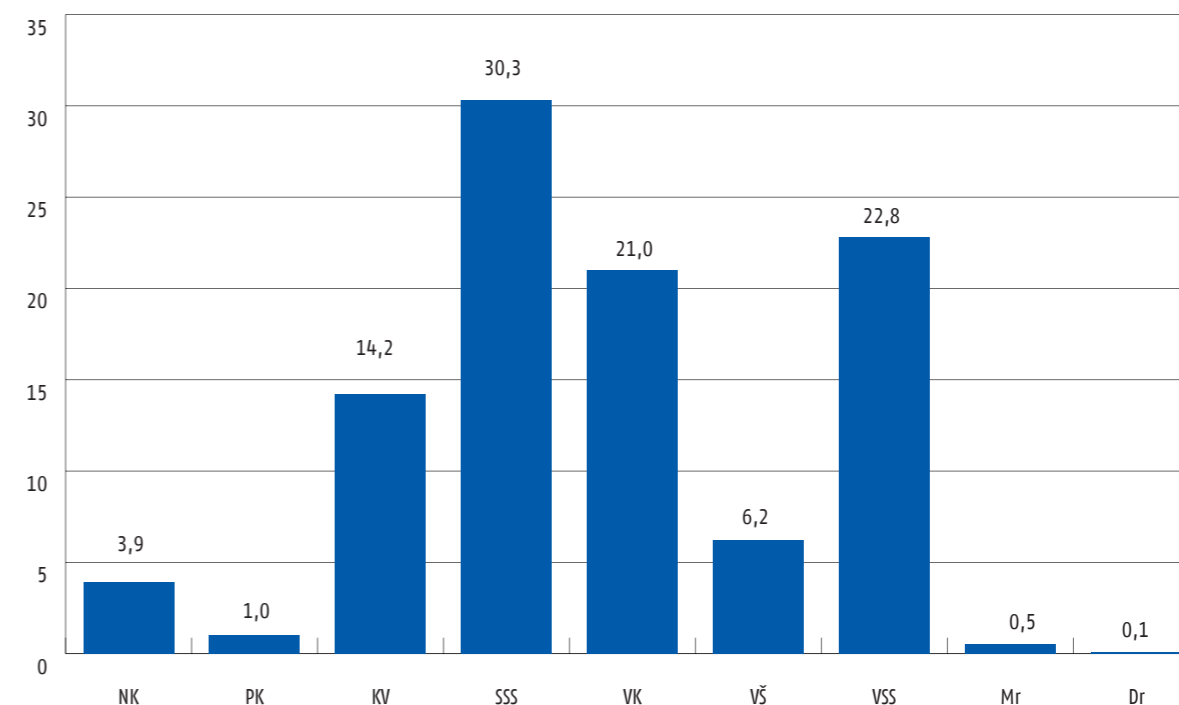
Years of age	Power Generation Division As of Dec.31,2011	Power Distribution Division As of Dec.31,2011	Power Supply Division As of Dec.31,2011	Head Office and other organizational units As of Dec.31,2011	TOTAL As of Dec.31,2011	Structure in %
Under 30	55	116	60	52	283	15
30-39	89	222	102	40	453	24
40-49	107	300	109	29	545	29
50-59	149	240	93	33	515	27
Over 60	40	33	9	2	84	5
Total	440	911	373	156	1880	100

EMPLOYEE EXPERIENCE STRUCTURE IN 2011

Years of Experience	Power Generating Division As of Dec.31,2011	Power Distribution Division As of Dec.31,2011	Power Supply Division As of Dec.31,2011	Head Office and other organizational units As of Dec.31,2011	TOTAL As of Dec.31,2011	Structure in %
Under 10	98	234	114	88	534	29
10-19	126	298	127	34	585	31
20-29	98	229	86	24	437	23
30-35	73	99	28	7	207	11
Over 35	45	51	18	3	117	6
Total	440	911	373	156	1880	100

EMPLOYEE QUALIFICATION STRUCTURE

Education Level	Power Generation Division As of Dec.31,2011	Power Distribution Division As of Dec.31,2011	Power Supply Division As of Dec.31,2011	Head Office and other organizational units As of Dec.31,2011	Total As of Dec.31,2011	Structure in %
Unskilled	31	37	4	1	73	3.9
Semi-skilled	2	14	3	0	19	1.0
Skilled	65	160	38	4	267	14.2
Secondary school	132	242	178	18	570	30.3
Highly-skilled	74	267	52	1	394	21.0
Associate degree	30	53	21	12	116	6.2
B.Sc.	102	134	76	117	429	22.8
M.Sc.	3	4	1	2	10	0.5
D.Sc.	1	0	0	1	2	0.1
Total	440	911	373	156	1,880	100





V FINANCIAL DATA

Below is a table giving the financial data for the period from 1994 to 2011.

Year	Total income (BAM)	Total expenses (BAM)	Gross profit (+) / loss (-) (BAM)
1994	41,822,577	47,472,325	-5,649,748
1995	73,840,192	68,388,846	5,451,346
1996	112,015,639	111,319,730	695,909
1997	148,277,000	147,975,000	302,000
1998	129,691,000	123,818,000	5,873,000
1999	139,112,321	138,314,522	797,799
2000	145,411,621	144,873,886	537,735
2001	197,778,869	196,775,737	1,003,132
2002	171,245,078	170,551,115	693,963
2003	198,460,305	233,707,792	-35,247,487
2004	279,180,918	299,446,696	-20,265,778*
2005	304,906,244	299,690,519	5,215,725
2006	370,258,137	369,255,918	1,002,219
2007	345,499,374	404,770,467	-59,271,093
2008	339,296,892	331,963,761	7,333,131
2009	311,864,900	288,520,999	23,343,901
2010	382,991,119	342,244,604	40,746,515
2011	364,983,193	379,977,868	-14,994,675

* Gubitak nastao nakon provedene revalorizacije (31.12.2004.)
There are no data for the war period from 1991 to 1993

SAP SYSTEM – FMIS PROJECT

JP Elektroprivreda HZHB d.d. Mostar is the first power utility in the region that implemented the SAP system as information support to business processes.

Application of the SAP system started in 2009 after the FMIS Project was successfully implemented. In this way the main objective of introducing the ERP system was achieved: integration of procurement business processes, materials management, finances, fixed assets management, controlling etc.

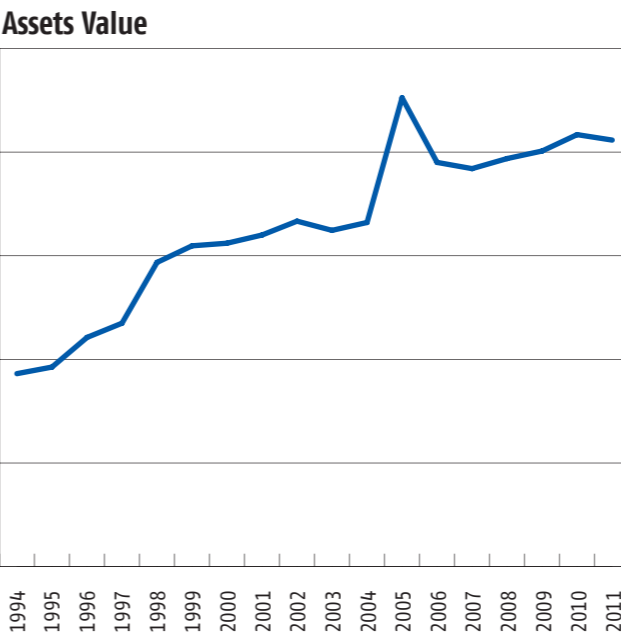
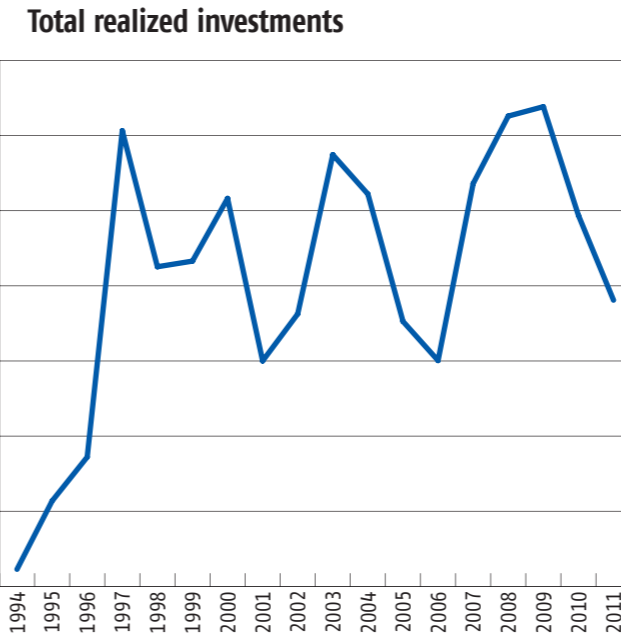
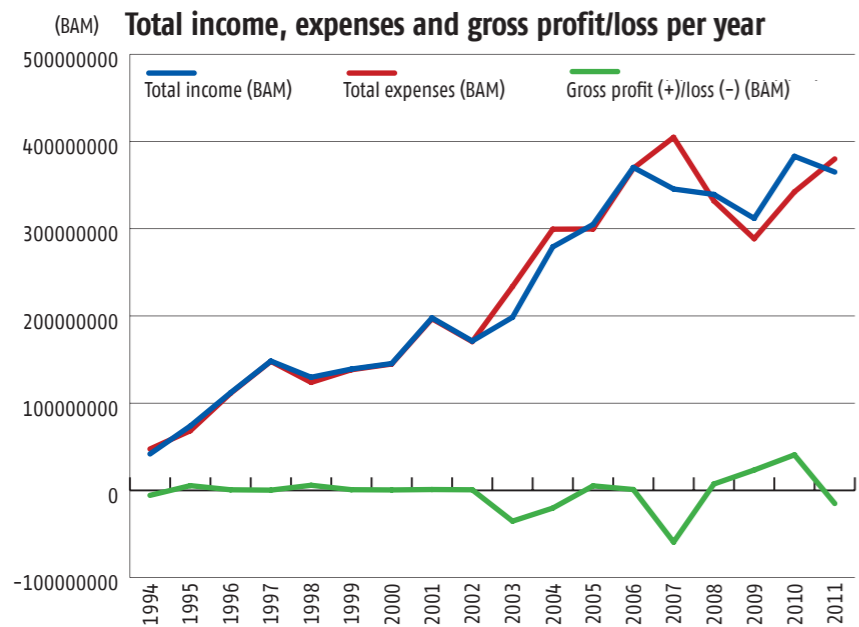
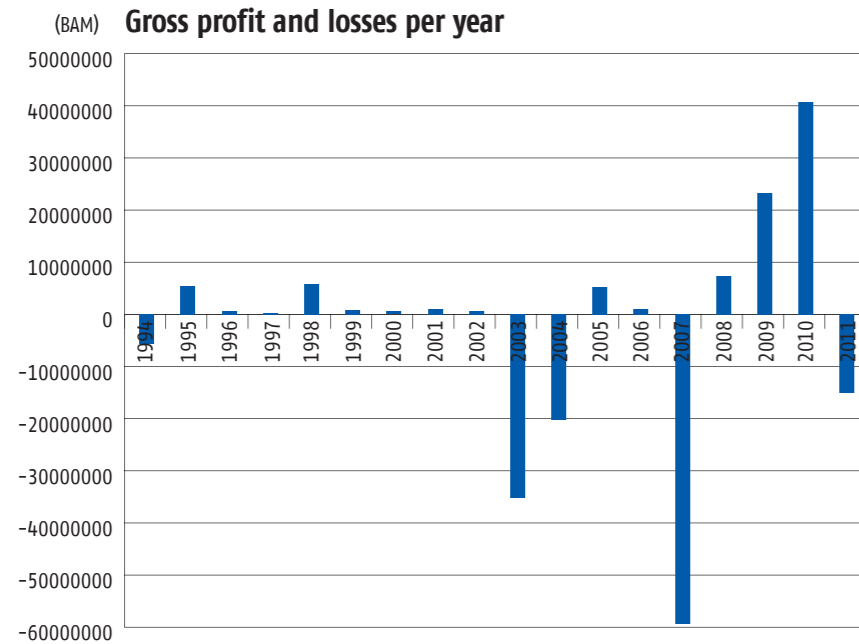
The Company has been running business in the transparent system for four years (better transparency and coordination of business processes) to the satisfaction of all information users, especially auditors.

INSTALLED SAP R/3 MODULES

The central system is based on the SAP R/3 system. It includes the following SAP R/3 modules that cover specific business segments:

- FI – Financial Accounting: General Ledger (GL), Accounts Receivable (AR), Accounts Payable (AP), Loan Management (through AP);
- FA – Fixed assets
- CO – Controlling
- MM – Materials Management: Purchasing (PC), Material Requirement Planning (MRP), Inventory Management and Logistic Invoice Verification.
- SD – Sales and Distribution – covers only sale activities.

SAP has developed interfaces for payroll, billing and electronic data interchange (daily extracts and payment orders) through the internet banking with commercial banks.

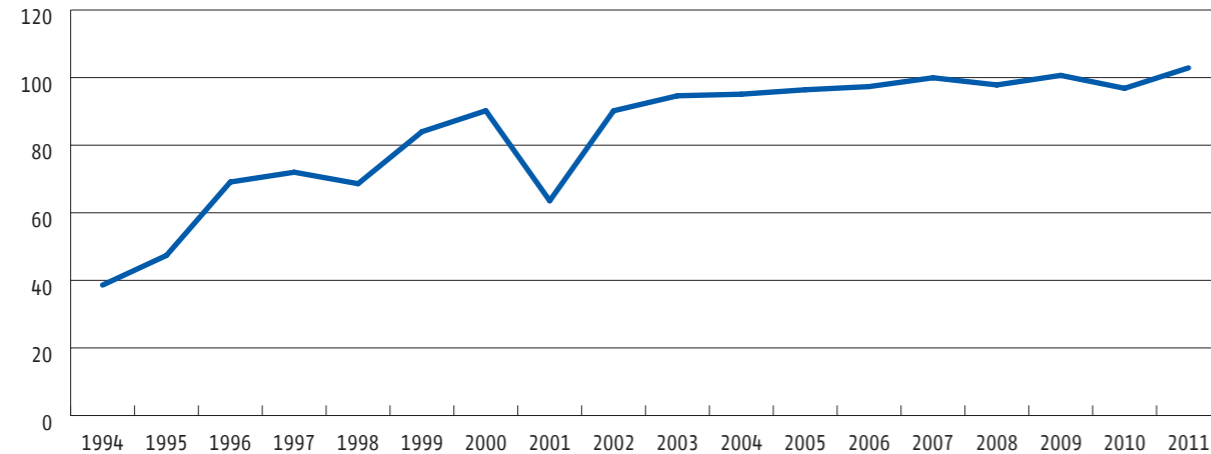


REALIZED INVESTMENTS AND ASSETS VALUE FROM 1994 TO 2011

Godina	Total Realized Investments	Assets Value
1994	12,279,225	558,684,864
1995	21,372,290	577,714,000
1996	27,216,066	663,473,000
1997	70,641,365	704,703,000
1998	52,541,365	880,663,000
1999	53,290,637	928,669,760
2000	61,634,391	936,242,963
2001	40,007,103	959,942,308
2002	46,264,764	1,000,084,725
2003	67,450,871	973,447,718
2004	62,215,032	996,292,275
2005	45,268,648	1,357,248,605
2006	40,058,630	1,170,161,795
2007	63,605,180	1,152,140,047
2008	72,591,576	1,181,281,837
2009	73,841,158	1,203,081,912
2010	59,390,013	1,250,572,538
2011	48,099,453	1,234,808,706

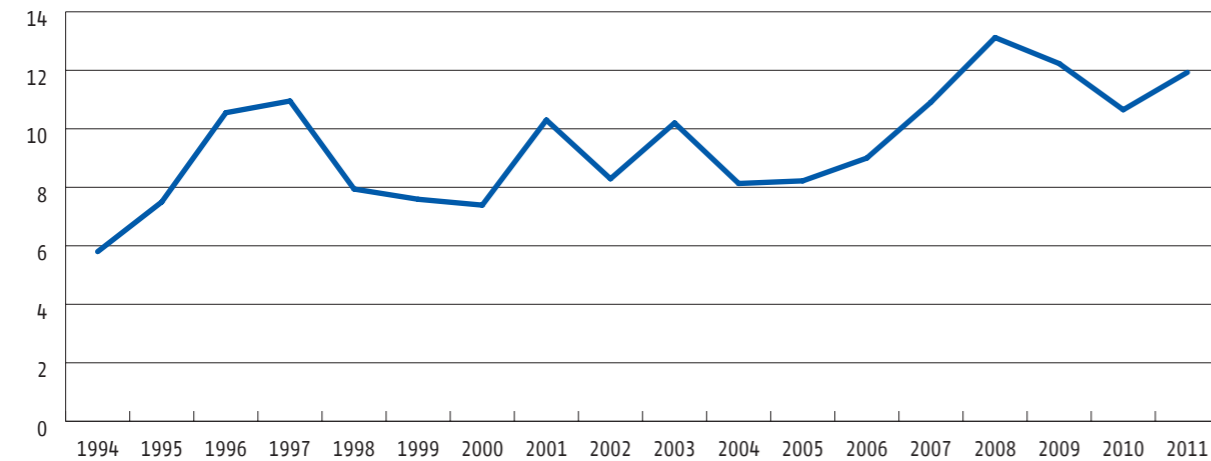
There are no data for the war period from 1991 to 1993

COLLECTION RATE (%)



Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Collection rate (%)	38.60	47.37	69.10	72.00	68.6	83.99	90.20	63.55	90.18	94.62	95.09	96.40	97.34	99.95	97.83	100.66	96.83	102.88

AVERAGE ELECTRICITY PRICE FOR TOTAL CONSUMPTION (PF/KWH)



Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Average electricity price for total consumption (pf/kWh)	5.80	7.50	10.55	10.95	7.94	7.59	7.39	10.30	8.29	10.20	8.13	8.22	9.00	10.91	13.12	12.23	10.65	11.93

There are no data for the war period from 1991 to 1993

VI PLANNED GENERATING FACILITIES

To ensure its own development and progress, and to meet customers' demands, JP Elektroprivreda HZ HB d.d. Mostar works on the projects of renewable energy sources: wind, water and fossil fuels.

There are underway preparation activities on solar energy use and possible gasification in the areas of responsibility of the Company .

By the Strategic Plan and Program for Energy Sector Development in FBiH, development projects of JP Elektroprivreda HZ HB d.d. Mostar were included in BiH priority projects. According to the Decision of the FBiH Government, dated February, 15, 2010, on declaration of public interest and preparation for construction of 28 priority power generating facilities in FBiH, JP Elektroprivreda HZ HB d.d. Mostar is the implementer of pre-construction and construction of 11 priority power generating facilities.

Name	Installed capacity	Output	Construction duration	Investment	Construction workers	New workplaces
	MW	GWh	year	Mil. €	man/year	workplace
THERMAL POWER PLANTS	550.00	3,000.00		1,100.00	6,000	790
MINE&TPP Kongora	550.00	3,000.00	5	1,100.00	6,000	790
HYDRO POWER PLANTS	162.60	445.70		203.76	2,050	81
PSPP vrilo	64.00	242.96	4.5	89.11	400	25
PSPP Kablić	52.00	73.13	3	58.42	400	25
HPP Han Skela	12.00	52.00	2	29.50	300	10
HPP Ugar ušće	11.60	33.19	2	12.87	350	7
HPP Vrletna kosa	11.20	22.54	2	6.93	300	7
HPP Ivik	11.20	21.88	2	6.93	300	7
WIND FARMS	200.00	626.11		316.72	1,270	62
WF Borova Glava	52.00	149.62	3	78.00	350	16
WF Mesihovina	44 - 66	128.53 - 146	3	78.00	300	14
WF Velika Vljajna	32.00	89.36	3	52.72	220	10
WF Poklečani	72.00	258.60	3	108.00	400	22
Total	912.6	4,071.81		1,620.48	9,320	933

Small hydro power plants (SHPP) not included



WIND ENERGY

WF MESIHOVINA UNDER CONSTRUCTION

The wind farm Mesihovina, near Tomislavgrad, as the first wind farm in BiH, will have 22 wind turbines with the installed capacity from 2 to 3 MW each and total installed capacity from 44 to 66 MW, depending on the selected wind turbine type and its capacity. The expected annual output shall be from 128 to 146 GWh.

The investment is estimated at EUR 78 mil. and the financial funds are provided by the Loan and Project Agreement and the Financing Agreement signed between the German Development Bank KfW, Bosnia and Herzegovina, the Federation of BiH, and JP *Elektroprivreda HZ HB* d.d. Mostar. The project is financed out of a EUR 71 million loan and a EURO 1 million grant (for consulting services), and EUR 6 million own funds.

After the international bidding procedure for the Consultant there was selected the German company Fichtner GmbH & CO KG among 13 European bidders.

Selection of the equipment supplier is underway, and the commissioning is planned for 2014.

WF VELIKA VLAJNA

The installed wind farm capacity shall be 32 MW, and the annual output 89.36 GWh. The investment is estimated at EUR 52.72 mil.

WF POKLEČANI

The installed wind farm capacity shall be 72 MW, and the annual output 258.6 GWh. The investment is estimated at EUR 110.6 mil.



According to the 2010 Business Plan and Decisions of the FBiH Government there have been intensified activities on the WF Poklečani project implementation.

WF BOROVA GLAVA

The installed wind farm capacity shall be 52 MW, and the annual output 149.62 GWh. The investment is estimated at EUR 78 mil.

The WF Borova Glava occupies the area of two municipalities, Livno (16 wind turbines) and Tomislavgrad (10 wind turbines). It is settled mostly on the private land. The locations of 26 wind turbines of the WF Borova Glava are planned by the Feasibility Study prepared by NYPSA Madrid, 2006.

HYDRO ENERGY

PSPP VRILO

The pumped storage power plant Vrilo is a development project of Tomislavgrad Municipality. It shall collect the Duvanjsko Field i.e. Šuica river inflow water and in the period of reduced inflow in Duvanjsko Field it shall pump water from Buško Blato in the upper reservoir to use it when there is a shortage electricity in the system.

This power plant shall provide the power system with additional output of peak energy and shall contribute to gas pollution reduction.

The plant shall use the gross head of around 155 m from Duvanjsko Field to Buško Lake.



The installed output shall be 64 MW (two turbine-pumps with the capacity of 32 MW each) and the installed discharge $2 \times 25 \text{ m}^3/\text{s}$.

The total annual output depends on the possible hours of pump operation during the day. In 6 hours it would generate around 170.58 GWh, and in 12 hours around 242.96 GWh.

The total investment is estimated at around EUR 89.11 mil.

The German Development Bank (KfW) provided a EUR 70 million loan for its construction.

HPP MOKRONOGE

The small hydro power plant Mokronoge is located in the canyon part of Tomislavgrad and it shall collect the Cetina basin, i.e. Šuica river inflow water.

According to the Pre-Feasibility Study prepared by JP *Elektroprivreda HZ HB* d.d. Mostar in 2010, the profitability of its construction and its multipurpose contribution were confirmed.

HPP KABLIĆ

The pumped storage power plant Kabić is located in Glamočko Field and Livanjsko Field. The planned installed capacity is 56 (2×26) MW and annual output 73.44 GWh. The investment is estimated at EUR 58.42 mil.

HPP UGAR UŠĆE

The HPP Ugar is located 1.9 upstream of the place where the Ugar river flows into the Vrbas river. It is a storage - run-of-river power plant, with the installed capacity of 11.6 (2×5.8) MW and

annual output of 33.188 GWh. The investment is estimated at EUR 12.87 mil. The Pre-Feasibility Study was prepared by Elektroprojekt d.d. Zagreb in 2007.

HPP IVIK

The HPP Ivik is located in the area of Dobretići Municipality and it collects the Ugar river inflow water. It is 13.3 km upstream of the place where the Ugar river flows into the Vrbas river. This is a storage - run-of-river power plant, with the installed capacity of 11.2 MW and annual output of 22.08 GWh. The investment is estimated at EUR 6.75 mil.

The Pre-Feasibility Study was prepared by Elektroprojekt d.d. Zagreb in 2007.

HPP VRLETNA KOSA (MILAŠEVCI)

The HPP Vrletna Kosa is located 9.2 km upstream of the place where the Ugar river flows into the Vrbas river. It is a storage - run-of-river power plant, with the installed capacity of 11.2 (2×5.6) MW and annual output of 22.538 GWh.

The investment is estimated at EUR 6.93 mil. The Pre-Feasibility Study was prepared by Elektroprojekt d.d. Zagreb in 2007.

HPP HAN SKELA (BRAVNICE)

The HPP Han Skela is located in the area of Jajce Municipality and collects the Vrbas river inflow water. It is a storage - run-of-river power plant with the installed capacity of 12 MW and expected annual output of around 52 GWh. The investment is estimated at BAM 57.70 mil. The Pre-Feasibility Study was prepared by Elektroprojekt d.d. Zagreb in 2007.

The facilities of JP Elektroprivreda HZ HB d.d. Mostar on the Vrbas river (HPP Han Skela, HPP Ivik, HPP Vrletna Kosa, HPP Ugar Ušće) are of public interest and shall be additionally estimated in the Study of World Bank: Water Resources Study for the Vrbas River that is expected in February 2013.

FOSSIL ENERGY

MINE AND TPP KONGORA

The Integrated Lignite Mining and Power Project Kongora is located in Duvanjsko Field near Tomislavgrad. The installed capacity is 2x275 MW and total annual output 3,000.00 GWh. The investment is estimated at EUR 1,100.00 mil.

The Pre-Feasibility Study was prepared by Rheinbraun Engineering und Wasser GmbH Köln from Germany in 1998. In the period from 2006 to 2009, JP Elektroprivreda HZ HB d. d. Mostar performed a detailed field research to precisely determine the coal quantity and quality. Furthermore, there were prepared

studies necessary for recognition of mineable reserves in the Kongora deposit and started other research activities for the project implementation.

The Decision on Recognition of Mineable Reserves in the Kongora Deposit was obtained.

As it is necessary to provide considerable funds for the next research phases, preparation of designs and studies for this project, it was decided that, in the next project phase, the Strategic Environmental Impact Assessment should be prepared with a multicriteria analysis taking into consideration environmental, technological, social, energy and financial aspects of possible implementation.

The Strategic Environmental Impact Assessment for the project was prepared by the Consortium Ecoplan Mostar – Ekenerg Zagreb – Tuzla Mining Institute.

