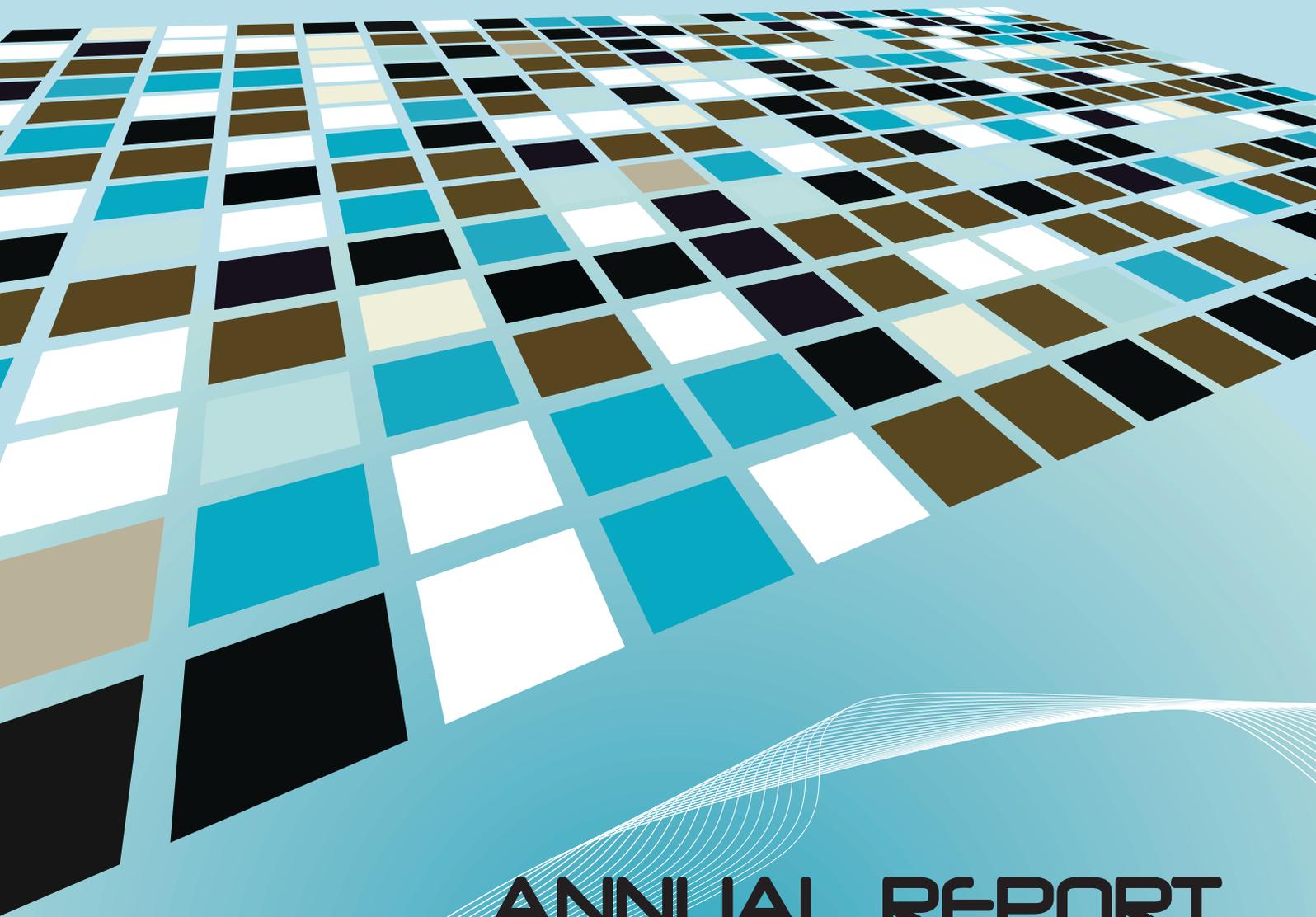




BOSNIA AND HERZEGOVINA

**STATE ELECTRICITY
REGULATORY COMMISSION**



ANNUAL REPORT

2013



Bosnia and Herzegovina

STATE ELECTRICITY REGULATORY COMMISSION

**REPORT ON ACTIVITIES
OF THE STATE ELECTRICITY REGULATORY COMMISSION
IN 2013**

Tuzla, December 2013

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“Wide horizons lead the soul to broad ideas...”

Victor HUGO, from the novel *Quatrevingt-treize (Ninety-Three)*, 1874

1. INTRODUCTION

Ten years have passed since the formation of the State Electricity Regulatory Commission in Bosnia and Herzegovina. An independent regulator is a relatively new institution in European practice, so this Commission also had to pass the path from introducing its position and role to the public, to serious understanding by branch professionals as well as politicians of the importance of proper and functional regulation and the independence of regulators who are expected to implement European energy rules in practice.

The Commission has achieved maximum results possible under the existing circumstances in the society from which it cannot be separated and the destiny of which it has shared all these years. The position built by now, its budgetary independence, the expertise of human resources and financial solidity, the managerial independence, all these being the requirements of the modern European approach to energy, are a guarantee for better and higher achievements in the future.

The Commission is determined to maintain the stability and thoroughness of regulatory proceedings and the independence from politics and market interests. There is no doubt that the power sector liberalization process on global, regional and local levels intensifies market competition in Bosnia and Herzegovina (BIH) as well. This makes the role of the power sector regulator even more difficult imposing on the regulator a responsible task to balance interest of all players in ever more dynamic market.

There are still numerous manifold, complex and often interrelated challenges before the BIH energy sector which demand significant changes of the present pace and manner of conducting activities. Unfortunately, due to delays in transposing and implementing the *acquis*, the sector as the whole is reminded and expedited both by the European Union and the Energy Community.

In 2013, the Commission continued its activities on accomplishing the main tasks of the regulator in the power sector, primarily on creating conditions for free trading and reliability of electricity supply, with continuous monitoring of licensed entities in the sector.

The BIH power system operated steadily throughout 2013 under very favorable hydrological conditions. The functional operation was enabled for all system users in line with the defined quality standards. Two interstate transmission lines were connected to the transmission network (TL 220 kV Trebinje – Plat and TL 110 kV Ljubuški – Vrgorac) and a 110 kV transmission line Livno – Tomislavgrad. After the first solar plants started to operate in 2012, in 2013 generation in the first BIH wind power plant also began (Moštre 1, Visoko municipality, with installed capacity of 300 kW).

The State Electricity Regulatory Commission is an independent institution of Bosnia and Herzegovina, which acts in accordance with the principles of objectivity, transparency and equality, and has jurisdiction over and responsibility for the transmission of electricity, transmission system operation and international trade in electricity, as well as generation, distribution and supply of electricity for customers in Brčko District BIH.

SERC is a non-profit institution and is financed by regulatory fees, which are paid by the licensed entities.

In 2013 a record in generation was reached amounting to 16,303 GWh of electricity, which is by 26% higher than generation in 2012. Inflows which were considerably higher than the multiannual average resulted in a high level of electricity generation by hydro power plants: generation reached 7,124 GWh which is even by 71.7% higher than in the previous year. Thermal power plants produced 8,940 GWh, which is a growth of 3.7% compared to the result in 2012. Generation by small hydro, solar and wind power plants amounted to 234.2 GWh, while industrial power plants produced 5.1 GWh.

In 2013, total electricity consumption in BIH amounted to 12,559 GWh recording a 0.5 reduction unlike the increase of 0.3% in the previous year. Customers connected to the transmission network took over 2,623 GWh or 2.9% less, while customers connected to the distribution network took over 9,571 GWh, which is a 0.4% increase compared to the previous year.

On 24 December 2013 at 18:00 hrs, the maximum load of the power system was recorded amounting to 2,074 MW, which is lower than the historic maximum of 2,173 MW reached on 31 December 2010 at 18:00 hrs.

Total electricity in the transmission network was significantly increased from the amount of 16,752.1 GWh in the previous year to 18,936.8 GWh in 2013. Transmission losses amounted to 343 GWh, that is, 1.81% in relation to the total energy in the transmission network, which is somewhat less than the loss percentages in 2012, when they amounted to 1.84%. The trend of reducing distribution losses continues and they amounted to 1,105 GWh or 11.5% in relation to gross distribution consumption, which further improved the last year's result of 12.5%, which was the lowest level in the past twenty years.

A total of 5,097 GWh was exported, which is a 225% increase in comparison to the previous year's export. At the same time, this is the highest annual export in the history of the power system in BIH. Furthermore, in March 2013 a historic record in export was recorded on an annual level of 799 GWh. Registered electricity transit through the BIH transmission network amounted to 1,145 GWh, which is a 46% reduction in comparison to the previous year.

The SERC Report on Activities in 2013 gives an overview of the objectives of several programs and projects of different institutions, in particular, the European Commission and the Energy Community, which support the fulfillment of obligations by the BIH energy sector.

The auditing report for yet another business year indicates that SERC disposes of its assets rationally following the recommendations and requirements of the relevant working bodies and both Houses of the Parliamentary Assembly of BIH, presenting their use and status in an objective and transparent manner.

2. COMPOSITION AND ORGANIZATION OF WORK OF THE STATE REGULATORY COMMISSION

SERC was established by the Parliamentary Assembly of Bosnia and Herzegovina by adoption of the Law on Transmission of Electric Power, Regulator and System Operator of BIH, and appointing the Commissioners.

Commissioners from the Federation of Bosnia and Herzegovina are:

- Mr. Mirsad Salkić, with his second five-year term (from 30 December 2009 to 29 December 2014) and
- Mr. Nikola Pejić, with a five-year term (from 25 September 2007 to 24 September 2012).

The Commissioner from the Republika Srpska is

- Mr. Milorad Tuševljak, with a five-year term (from 10 August 2011 to 9 August 2016).

It is clear that the first five-year term of one Commissioner from the Federation of Bosnia and Herzegovina expired on 24 September 2012. Having in mind that the Law on Transmission of Electric Power, Regulator and System Operator of Bosnia and Herzegovina sets forth that the Commission can only operate with all three commissioners and make decisions by a unanimous vote, and taking into consideration the existing practice, Mr. Nikola Pejić continues to perform this function until the completion of the procedure for (re)appointment of one Commissioner from the Federation of Bosnia and Herzegovina.¹

Since the establishment of State Electricity Regulatory Commission, the Commissioners rotate in the position of the Chairman equally on an annual basis. Until 30 June 2013, this function was performed by Mr. Milorad Tuševljak. Mr. Mirsad Salkić is the current Chairman of the Commission until 30 June 2014.

The work of SERC is organized within four departments:

- Tariff and Market Department,
- Licensing and Technical Affairs Department,
- Legal Department,
- Financial and Administrative Department.

Thematic working teams are formed on a needs basis at SERC in the work of which employees from different sectors participate with the aim to achieve higher performance.

¹ At the time of the creation of this report, the procedure for appointment of one commissioner from the Federation of Bosnia and Herzegovina has been in process before the Government of this Entity. After the Government's proposal is confirmed by the Parliament of the Federation BIH, the nomination will be submitted to the Council of Ministers of Bosnia and Herzegovina, which will propose the appointment to the Parliamentary Assembly of Bosnia and Herzegovina.

SERC follows the requirements of regulatory practice by using different ways to improve its knowledge and experience by strengthening its professional capacities. The improvement of knowledge is achieved by participation in different professional consultations, conferences and topical seminars, in the country and abroad, and by distance e-learning, which is becoming ever more dominant in the practice of the Commission. Systematic training aimed at continuous harmonization of knowledge, skills and practice with needs and expectations of the institution is also provided by special workshops of the Energy Community Secretariat, training programs of the Energy Regulators Regional Association (ERRA) and the Florence School of Regulation (FSR), and seminars of the Directorate for European Integration aimed at the process of accession and integration of Bosnia and Herzegovina into the European Union. In 2013, contribution to continuing education of the staff was also provided by the Italian foundation “*Centro Studi Enel*” which enabled SERC representatives to participate in the seminar “New challenges for energy system in the Mediterranean Region” which was organized in cooperation with the International Energy Agency (IEA).

With the same aim, the United States Agency for International Development (USAID) through *the Regulatory and Energy Assistance Project (REAP)* organized a few workshops and seminars on retail markets, load profiling, ancillary services and balancing settlements, commercial contracts and the role of distribution system operators. In addition to representatives of the regulatory commissions, these training programs were used by representatives of all key institutions of the BIH energy sector, including the relevant state and entity ministries, the Government of Brčko District BIH, all three power utilities and Public Utility “Komunalno Brčko,” the Independent System Operator in BIH (ISO BIH) and the Company for Transmission of Electric Power of BIH – TRANSCO (“Elektroprijenos/Elektroprenos BIH”).

Participants in a professional debate on the topic: *Obligations of Bosnia and Herzegovina concerning the implementation of the European Union acquis in the energy sector under the Treaty Establishing the Energy Community*, which was organized by the Committee on Foreign Affairs of the House of Representatives and the Committee on Foreign and Trade Policy, Customs, Traffic and Communications of the House of Peoples of the BIH Parliamentary Assembly, had a special opportunity to exchange experience and gain new knowledge. In direct contact with representatives of the European Union and the Energy Community and other international experts numerous requirements that Bosnia and Herzegovina has to fulfill on its path towards the European Union were discussed, *inter alia*, the fulfillment of obligations under the Treaty Establishing the



The Report on Activities of the State Electricity Regulatory Commission in 2012 was considered and adopted at the sessions of both Houses of the Parliamentary Assembly of Bosnia and Herzegovina,

- *at the 47th session of the House of Representatives, held on 18 April 2013, with a majority vote in favor, without no votes and with two abstentions,*
and
- *at the 29th session of the House of Peoples, held on 22 May 2013, unanimously.*

Energy Community. On that occasion, Mr. Janez Kopač, Director of the Energy Community Secretariat presented the conclusions of the *2013 Annual Implementation Report on the Acquis under the Treaty Establishing the Energy Community*. Representatives of the State Electricity Regulatory Commission made a significant contribution to the success of the debate.

SERC will remain dedicated to ensuring continuous professionalism of human resources through well-established as well as even more efficient training methods using communication tools. The justification of this approach has been confirmed by information, communication and presentation skills of a high number of individual employees who successfully present their knowledge and experience at regional international professional gatherings.

In addition to the professional training of its employees, SERC also informed about and shared experiences on regulatory practice with regulated companies' employees, and participated in professional training of staff of other regulatory authorities in the region. Furthermore, SERC provided quality professional information on the energy sector and its reform not only to specialists in the sector but also to the general public.

Large volumes of different documents have been created as a result of SERC activities. The number of documents and information is constantly increasing. SERC, as the creator, organizes keeping, evaluation, extraction and protection of the registry office material under the professional supervision of the Archive of Bosnia and Herzegovina. This cooperation enables these processes to develop in line with professional principles, experiences and recommendations and through mutual familiarization of the two institutions.

In the reporting period only technically defective or written-off and functionally obsolete equipment was replaced.

3. KEY ACTIVITIES

In 2013, the State Electricity Regulatory Commission held 17 regular sessions, 29 internal meetings and organized 10 public hearings, one of them having a formal character.

In the reporting period, the Commission adopted or approved several documents. This Report presents the most important documents, which, as a rule, were adopted through the process of public hearings.

Transparency toward the public through consultation and communication with all interested professionals, as well as the wider public, is the fundamental orientation of the Commission, which is conducive to checking the suitability of proposed solutions before their final adoption. The practice of the mutual exchange of collected public comments in the same or similar procedures is applied by all three electricity regulatory authorities in Bosnia and Herzegovina.

3.1 SERC Rules and Documents

Rules on Supply of Customers in Brčko District of Bosnia and Herzegovina with Electricity

In line with its legal powers to act in the area of Brčko District of Bosnia and Herzegovina as a regulatory authority, and its obligations and powers to create conditions for unlimited and free trade and continued electricity supply and enable and expedite the creation of the electricity market in Bosnia and Herzegovina, governed by international practice and the relevant regulations and directives of the European Union, the State Electricity Regulatory Commission adopted *Rules on Supply of Customers in Brčko District of Bosnia and Herzegovina with Electricity*.

The adoption of the Rules is a logical sequence of activities following the adoption of the *Decision on Scope, Conditions and Time Schedule of Electricity Market Opening in Bosnia and Herzegovina* as of June 2006 followed by the *Decision on Supply of Eligible Customers with Electricity in Brčko District of Bosnia and Herzegovina* as of October 2011.

The aim of the Rules is the development and functioning of the electricity market in Brčko District of BIH within a single electricity market in BIH. The Rules define the issue of supplying customers with electricity in a more complete manner and regulate the right of the customer to a free choice and supplier switching, that is, procedures protecting the customer in cases when the supplier stops the electricity supply. The

Documents under regulatory competences are reviewed and determined in regular sessions, in accordance with the authorities prescribed by the law; issues and documents of an organizational and administrative nature are reviewed and adopted in internal meetings.

With a view to soliciting comments of interested parties and members of the public on rules and regulations, or on any other document, SERC organizes general hearings; technical hearings, which are organized to resolve technical issues during the proceedings, e.g., the processing of procedural or essential issues; and formal hearings, which are organized to establish decisive facts, based on which SERC may resolve certain applications or disputes.

document defines the entity which performs the public service, that is, the universal service and the service of the supplier of last resort for those customers who lose their supplier.

The procedure for the adoption of *Rules on Supply of Customers in Brčko District of Bosnia and Herzegovina with Electricity* was conducted in the second half of 2013 and finalized by the adoption in November 2013.

An Analysis of Electric Power Sector Issues in Brčko District of Bosnia and Herzegovina

At the end of 2013, acting as the competent regulatory authority in the field of electric power in Brčko District BIH, SERC prepared *An Analysis of Electric Power Sector Issues in Brčko District of Bosnia and Herzegovina*

The Analysis provides recommendations focusing on even better organization of the electric power sector functioning in Brčko District BIH. Some recommendations are applicable at the present time, while some are permanently applicable. For the purpose of this report, a few key topics are extracted out of a number of topics presented in the Analysis.

The Analysis includes activities on the development of primary legislation through transposition of the European Union rules, primarily those rules from the Third Package which include the development of a new *Law on the Transmission of Electric Power, Regulator and Electricity Market in Bosnia and Herzegovina* and a new *Electricity Law of Brčko District BIH*, as well as a set of primary and secondary pieces of legislation which would regulate the field of electricity generation from renewable sources in Brčko District BIH.

Regarding the current method of electricity purchase for the needs of the District, the Analysis recommends to maintain it as long as required by the conditions in the electricity market in BIH. The emphasis on the need to implement the *Rules on Supply of Customers in Brčko District BIH with Electricity* indicates further focus of activities including revisions of the *Tariff Pricing Methodology for Services of Electricity Distribution in Brčko District BIH*, initiating tariff proceedings to determine network tariffs as well as tariffs for households and small customers and the recommended reduction, that is, removal of the existing cross-subsidies among some categories of customers.

The issue of granting licenses for performance of the activities of electricity trading and supply of electricity in the territory of BIH to entities registered in the District was particularly elaborated. With an emphasis on the fact that significant assets used by the Public Utility “Komunalno Brčko” for the purpose

of electricity distribution and supply are not formally owned by the Company, the attention of the District Government was drawn yet again to the necessity to regulate the ownership over the fixed assets.

Furthermore, the Analysis gives recommendations in the field of regulatory monitoring and reporting, energy efficiency, smart (advanced) meters and development of distribution rules in compliance with European network rules.

The Analysis confirmed the need for continuous and coordinated cooperation of SERC with representatives of the Brčko District Government and Public Utility “Komunalno Brčko”, both in the field of producing legal acts and exchange of practical experiences and education on different areas of the electric power sector functioning, in particular the electricity market.

Activities on Implementation of the Licensing Rule

In May 2013, a *Decision on the Amount of One-Off Fee for Carrying Out the Procedure Pursuant to the Licensing Rule* was adopted. The new Rule, adopted at the end of 2012, was developed for the purpose of implementation of expanded powers of SERC and completion of the regulatory framework in the field of generation, distribution and supply of electricity to customers in Brčko District BIH instead of the interim rules previously applied for the same purpose.

The adopted Decision prescribes the amount of one-off fee to be paid when filing an application for the granting, modification, suspension or revocation of a license for any activity for which SERC has the regulatory competence. The same Decision also determines the amount of one-off fee in procedures for sale, granting, lease or transfer of the license in some other way which are conducted pursuant to the Licensing Rule as well. By the adoption of this Decision application fees in licensing procedures were reduced.

Register of Traders

Pursuant to the new Licensing Rule, with the aim of monitoring a single electricity market in Bosnia and Herzegovina, the State Electricity Regulatory Commission established a single register of electricity traders with the relevant licenses, that is, electricity trading licenses.

The register of electricity traders is kept on the basis of data on trading licenses granted by the State Electricity Regulatory Commission and data on second tier supply licenses granted by the Regulatory Commission for Energy in the Federation of

Bosnia and Herzegovina and licenses for performance of the activity of trade and supply with electricity granted by the Regulatory Commission for Energy of the Republika Srpska. The register of traders is kept in electronic form and published on the web site of State Electricity Regulatory Commission.

As of the beginning of 2014, according to the new register of traders, 27 entities are licensed for electricity trading, out of which 24 entities are licensed for domestic trading while 25 entities are licensed for international trading.

A New Concept of Ancillary Services for Power System Balancing in BIH

Deregulation of the energy sector and establishment of a single liberalized electricity market in Bosnia and Herzegovina cannot be fully implemented without the efficient ancillary service market. Therefore, taking into account the international obligations of BIH regarding the full market opening as of 1 January 2015, the State Electricity Regulatory Commission decided to establish a new method of providing ancillary services for balancing of the BIH power system which will be market-based unlike the fully regulated approach used up to now.

For this purpose, firstly SERC ensured making of an analysis which the world-renowned consulting house – DNV KEMA Energy & Sustainability/KEMA Consulting GmbH presented in the document: *Proposed Solutions for Improving Ancillary Services Provision and Balancing Mechanism in BIH*. Following the assessment by SERC and the Independent System Operator in BIH that it ensures stable, reliable and safe operation of the power system and fulfillment of the obligations by BIH, primarily under the Treaty Establishing the Energy Community and towards the European Network of Transmission System Operators for Electricity (ENTSO-E) and its Regional Group of Continental Europe, that is, the Control Block SHB (Slovenia – Croatia – Bosnia and Herzegovina), a joint team comprising consultants, SERC and ISO BIH started to elaborate the document to the level of a concept of ancillary services for the BIH power system balancing.

The completion of activities on the concept and establishment of a new method of providing ancillary services for the BIH power system balancing is planned in 2014.

installed capacity of wind power plants amounting to 350 MW can be approved for connection to the BIH transmission network by 2019, was developed by ISO BIH and approved by SERC.

In line with the accepted principle to allocate assessed maximum capacity on the basis of proportional share of installed capacities, it was defined that the shares of the Federation of BIH and Republika Srpska amount up to 230 MW and 120 MW respectively. Taking into consideration this allocation, the relevant entity ministries submitted lists of potential projects on construction of wind power plants in accordance with their registers of projects on renewable energy sources and cogeneration.

The balances of capacity and energy for the following ten years lead to the conclusion that it is necessary to start the realization of the planned time schedule for construction of new generation capacities as soon as possible. If deadlines for commissioning of new generation capacities are prolonged again, there is a realistic possibility for Bosnia and Herzegovina to face lack of generation in comparison to total electricity consumption in BIH.

The State Electricity Regulatory Commission adopted a *Decision on Approval of the Indicative Generation Development Plan for the Period 2014-2023* in May 2013. The timing of decision-making is in line with the changed time schedule for development and approval of an indicative plan as defined in the Grid Code, with the aim to ensure the required data for further activities on development plans in a timely manner, in particular for the development of a *Long-Term Transmission Network Development Plan* for the following ten-year period.



Conclusion on Approval of Conclusion of “Agreement on Common Frequency Control Reserves in the Control Block SHB”

In December 2013, SERC adopted a conclusion approving the conclusion of the Agreement on common frequency control reserves in the Control Block SHB among transmission system operators of Slovenia (ELES), Croatia (Croatian transmission system operator – HOPS) and Bosnia and Herzegovina (Independent System Operator in BIH – ISO BIH).

The Agreement is the result of joint efforts and successful cooperation of operators in the Control Block SHB (Slovenia – Croatia – Bosnia and Herzegovina), as part of the European Network of Transmission System Operators for Electricity (ENTSO-E) and its Regional Group of Continental Europe.

The implementation of the Agreement will enable the use of available sources to meet the needs for activating power reserves within the Control Block SHB in a more efficient manner. All

participating system operators will thus be able to reduce the required volume of leased power reserve in their own countries and thereby take advantage of synergy effects, which arise from a constructive cooperation in the joint control block.

This is particularly welcome at a time when all European system operators face unpredictable production from renewable energy sources, which due to its stochastic nature introduces new risks into the operation and makes it difficult to ensure a safe and reliable operation of electric power systems.

The signing of the *Agreement on Common Frequency Control Reserves in the Control Block SHB* is expected in January 2014.

Decision on Approval of Decision on Amendments to General Conditions for Electricity Supply in Brčko District BIH

With the aim to produce a document of higher quality and remove shortcomings observed in practice, the Public Utility “Komunalno Brčko” initiated activities on amendments to General Conditions for Electricity Supply in Brčko District BIH at the beginning of May 2013. A public hearing on the Draft document was conducted at the end of May 2013, followed by a Decision on Amendments to General Conditions for Electricity Supply in Brčko District BIH made by the Steering Committee of the regulated company which submitted it to SERC for approval.

The amended General Conditions define, *inter alia*, the method of metering, reading, billing and bill collection of electricity consumed, conditions and method for connection of facilities of end-customers or electricity generators to the distribution network, technical characteristics concerning the accuracy of metering devices, treatment of unauthorized electricity consumption and the method of its payment, as well as procedures to inform end customers in case of interruption and restriction of electricity supply.

In line with its powers, SERC adopted a *Decision on Approval of Decision on Amendments to General Conditions for Electricity Supply in Brčko District BIH* in July 2013.

3.3 Licensing Proceedings

In 2013, SERC granted ten licenses for various activities in the power sector, while at the time of writing this Report, it worked intensively on solving three additional applications.

In January 2013, “Elektroprijenos/Elektroprenos Bosne i Hercegovine” a.d. Banja Luka renewed its license for the activity of electricity transmission with a ten-year term. In the

same month, licenses for the electricity distribution activity in Brčko District BIH and activity of supplying electricity to non-eligible customers in Brčko District BIH were granted to the Public Utility “Komunalno Brčko” d.o.o. Brčko with the terms from 19 January 2013 to 31 October 2020 and 19 January 2013 to 31 October 2017 respectively.

Due to the expiration of the term of the previously issued license for the international electricity trading activity, proceedings were conducted and the license was renewed to the Company “ENERGY FINANCING TEAM” d.o.o. Trebinje with a five-year term (March 2013).

Temporary licenses for performance of the international electricity trading activity were also granted to the following entities that filed their applications for the first time:

- “PETROL BH OIL COMPANY” d.o.o. Sarajevo (February 2013),
- “PROFECTIO ENERGIJA” d.o.o. Široki Brijeg (March 2013),³
- “Steelmin BH” d.o.o. Jajce (September 2013) – international trade in electricity for self-consumption,
- “Elektro energija BH” d.o.o. Banja Luka (September 2013),
- “HEP-Trade” d.o.o. Mostar (November 2013),
- “Danske Commodities BH” d.o.o. Sarajevo (December 2013).

Procedures for processing licensing applications, that is for granting licenses, are in progress as follows:

- for international trading: “EZPADA” d.o.o. Mostar and “KTG Zenica” d.o.o. Zenica, and
- for performance of the activity of trading and supply with electricity in the territory of BIH: JP “Komunalno Brčko” d.o.o. Brčko.

As licensees for the activity of international electricity trading, the following entities also have been registered in the previous period: “Rudnap” d.o.o. Banja Luka, “GEN-I” d.o.o. Sarajevo, “Interenergo” d.o.o. Sarajevo, “KORLEA” d.o.o. Mostar, “Alpiq Energija BH” d.o.o. Sarajevo, “Repower Adria” d.o.o. Sarajevo, “ČEZ BIH” d.o.o. Sarajevo, “COMSAR ENERGY TRADING” d.o.o. Banja Luka, “HSE BH” d.o.o. Sarajevo, EL-EN SOLUTIONS d.o.o. Banja Luka, “Axpo BH” d.o.o.

³ In September 2013, the name and seat of the Company were changed, so after the proceedings were conducted in October 2013, SERC adopted a Decision according to which “Profectio energija” d.o.o. Široki Brijeg, a holder of a temporary international electricity trading license continues to use the previously granted license under the name: “Proenergy” d.o.o. Mostar.

Sarajevo, MH “Elektroprivreda Republike Srpske” Parent Company, a.d. Trebinje, JP “Elektroprivreda Hrvatske zajednice Herceg Bosne” d.d. Mostar, JP “Elektroprivreda Bosne i Hercegovine” d.d. Sarajevo, “ALUMINIJ” d.d. Mostar and “B.S.I.” d.o.o. Jajce (import of electricity for self-consumption). “Independent System Operator in Bosnia and Herzegovina” holds the license for performance of the independent system operator activity.

In November 2013, at the licensee’s request, a Decision was adopted according to which a temporary license previously granted to the Company “ČEZ BIH” d.o.o. Sarajevo for performance of the international electricity trading activity was cancelled on 31 December 2013. (The temporary license was to expire on 28 February 2014).

Furthermore, at the request of “KTG Zenica” d.o.o. Zenica as a holder of a license for performance of the activity of international electricity trading, SERC first made a Decision suspending the use of the license in the period from 1 April 2013 to 30 September 2013, followed by a Decision on continuation of the suspension until 30 April 2014. In this way, SERC respected the freedom of choice by the licensee to cease the international electricity trading activity for a specific period of time in line with its business interest.

Every year, including this one, the Company “Elektroprijenos/Elektroprenos Bosne i Hercegovine” a.d. Banja Luka updated and reported changes in *Overviews of facilities used by the Company for performance of the activity of electricity transmission* as well as *Overviews of transmission lines* which are not owned by the Transmission Company and are not in the function of electricity transmission, on which SERC reached relevant conclusions in May 2013.

3.4 Monitoring of Activities of Licensed Entities

Throughout the year, SERC monitors operations of licensed entities and their compliance with the licensing conditions, primarily by monitoring regulated activities performed by ISO BIH, “Elektroprijenos/Elektroprenos BIH” and JP “Komunalno Brčko.” Monitoring of activities is performed by the analysis of regular and special reports submitted by the licensed entities as well as by the announced or unannounced visits to licensees. Licensees submit annual, semi-annual, monthly and daily reports on individual activities of a financial, technical and organizational character. Licensees’ reports on contingency events in the system are also available.

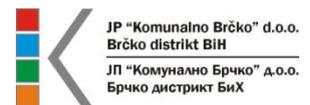
Visits of SERC experts to the regulated entities enable direct insight into their documents and activities which is of great

relevance in particular when analyzing the financial position of the entity from the aspect of application of approved tariffs.

In November 2013, the following regulated entities were visited in the function of regulatory monitoring:

- JP “Komunalno Brčko”,
- “Independent System Operator in Bosnia and Herzegovina,” and
- “Elektroprijenos/Elektroprenos Bosne i Hercegovine”

JP “Komunalno Brčko” was again requested to conduct unbundling of accounts for non-energy activities and to fulfill the obligation to adequately register any income received on the basis of operation of the Work Unit *Elektrodistribucija*, separately from incomes that the Company receives on the basis of other activities (water production and distribution, maintenance of public areas and transport and disposal of waste materials). In addition, SERC reminded the regulated entity of the obligation to regulate ownership relations over the fixed assets in the function of electricity distribution while the Brčko District Government was also asked for the involvement in finding a solution to this issue. It was suggested to the licensee to develop a long-term investment plan which would include necessary funding as well as a method to ensure it and to submit investment decisions with reasoning behind them. “Komunalno Brčko” was instructed to provide the state regulator with more complete indicators of continuity of supply and commercial quality of electricity supply in accordance with *General Conditions for Electricity Supply in Brčko District BiH*.



SERC conclusions imposed an obligation on Members of both the ISO BiH Board of Directors and Steering Committee to strictly comply with the scope of approved costs and expenditures as approved by regulatory decisions and to improve cost and expenditure management of the Company, in particular labor costs. Furthermore, ISO BiH was instructed to start active preparations to conduct joint auctions with the neighboring system operators and to start monitoring voltage quality pursuant to EN 50160 standard and reduce unintended deviations in the BiH control area within the SHB block in cooperation with BiH power utilities.



In accordance with conclusions upon regulatory monitoring at “Elektroprijenos/Elektroprenos BiH”, the Company was instructed to immediately conduct activities on the adoption of a Long-Term Transmission Network Development Plan and an Annual Investment Plan taking into account data from the approved Indicative Generation Development Plan as well as results of regional initiatives, plans and studies. “Elektroprije-



nos/Elektroprenos BIH” should adopt documents required for direct application of the Connection Rules, inform of activities with regard to placing a part of the cash fund on time deposit to gain additional income, constantly improve the quality of supply, primarily by enhancing operational readiness of facilities and transmission lines and intensifying planned activities on the expansion of the existing network as well as construction of the new one.

The year 2013 was a year in which the operation of the Company was accompanied by a number of problems and also the year in which constant efforts were made to solve them. Significant progress was made in returning the Company to a fully operational state. At the meeting of the Assembly of Shareholders in December 2013, annual financial reports from 2007 to 2011 were adopted and it was agreed to intensify activities on the adoption of a *Long-Term Transmission Network Development Plan*. The new general director of the Company was elected. The BIH Council of Ministers appointed five new members of the Steering Board. The shareholders agreed that amendments to the *Law Establishing the Company for the Transmission of Electric Power in BIH* should create the legal grounds for distribution of the accumulated profit of the Company even before the lapse of a ten-year period after its registration.

SERC believes that in 2014 the Council of Ministers of BIH and the Ministry of Foreign Trade and Economic Relations of BIH – the policy maker in respect of the transmission system in Bosnia and Herzegovina and the entity governments – owners, that is, members of the Assembly of Shareholders of “Elektroprijenos/Elektroprenos BIH, will continue their cooperation and solve issues pertaining to a successful operation and management of the Company.

3.5 Technical Aspect of Transmission System Operation

Operation of the BIH power system was stable and without bigger problems throughout the year. Functional operation was enabled for all system users in accordance with the defined quality standards. The planned works as well as those additionally requested on the transmission network were completed in the function of the current and investment maintenance. Generation with the balance exceeding the planned volumes was realized as well as all transactions as agreed by electricity traders.

Table 1. Energy-Not-Supplied due to interruptions in the transmission network

	2009		2010		2011		2012		2013	
	MWh	min	MWh	min	MWh	min	MWh	min	MWh	min
ENS _{unpl}	1,570.86	17,683	1,340.79	22,865	906.80	14,593	2,499.08	110,506	494.74	17,484
ENS _{pl}	2,252.23	35,225	2,042.28	33,842	2,106.92	36,032	1,081.15	47,807	1,362.40	29,940
Total	3,823.09	52,908	3,383.07	56,707	3,013.72	50,625	3,580.23	158,313	1,857.14	47,424

Table 2. Average Interrupted Time in transmission network by month (min)

Month	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
AIT ₂₀₁₁	0.7698	0.6631	1.9833	10.9127	8.3742	10.6196	13.6533	4.2118	17.9519	15.3561	5.7561	6.4662
AIT ₂₀₁₂	1.7559	66.6730	0.9586	10.4317	11.5640	5.8708	5.6832	4.4618	13.2911	11.3357	12.6825	3.4717
AIT ₂₀₁₃	4.4568	9.4367	6.2339	10.8451	3.5897	9.4802	8.9578	3.8633	10.8216	9.1419	3.4251	3.8644

Data on both energy-not-supplied (ENS) due to unplanned interruptions of energy supply (ENS_{unpl}) and energy-not-supplied due to planned interruptions of energy supply (ENS_{pl}) in the transmission network in the period 2009-2013, are provided in Table 1. It is evident that total energy-non-supplied in 2013 is lower than in the previous years.

Table 2 contains data on continuity of supply, that is, the average interrupted time (AIT) in the high-voltage transmission network.

In 2013, 495 outages occurred in the high-voltage network, of which 236 occurred in 110 kV, 191 in 220 kV and 45 in 400 kV network. During the year there were no outages which could significantly endanger the BIH power system operation. The most important occurrence in the past year was a failure of a 440/220 kV transformer, 400 MVA, in the sub-station TS 400/x kV Trebinje. The transformer was fixed and put into operation in September 2013.

Throughout 2013 increased voltage levels were registered in the BIH power system in the 220 kV and 400 kV networks, in particular during the period from March to May as well as in October and November. Increased voltage levels mostly occurred during weekends and holidays, when consumption was at the lowest level. The highest deviations and duration of voltage levels exceeding the allowed levels were registered primarily in the 400kV network while voltage levels in the 110 kV network were within allowed limits primarily due to successful regulation of 110/x kV transformers under load.

The main cause of occurrences and duration of high voltage levels are underloaded 400 kV transmission lines as emphasized

in the Study “*Technical and Economic Evaluation of Voltage Regulation as an Ancillary (System) Service – Identification and Improvement of Non-Allowed Voltage Levels in the BIH Transmission Network.*” The occurrence of high voltage levels can have as a consequence the reduction of life span of equipment and facilities, thus increasing maintenance costs, and in some cases investments costs, too. The aforementioned Study provides an overview of possible solutions which may prevent negative effects of high voltage levels in the transmission network.

Various measures were applied to lower high voltage levels. In some situations, disconnection of 400 kV and 220 kV transmission lines was used while taking into account the security of supply criterion.

The status of the transmission network in 2013 slightly changed compared to the previous year. A use permit was issued for the 110 kV Livno – Tomislavgrad transmission line in the middle of 2013. Two interstate transmission lines were put into trial operation. By putting a new sub-station TS 220/110 kV Plat in Croatia into trial operation, one of the two existing 220 kV transmission lines, which directly connected HPP Dubrovnik and TS Trebinje, was connected to TS Plat, and as such obtained status of an interstate transmission line. The second interstate transmission line which was put into operation at the 110 kV voltage level is the transmission line between Ljubuški and Vrgorac, which operated at the 35 kV voltage level in the previous period.⁴

In 2013, the PHP Čapljina did not operate in the pumping mode.

The quality of the power system operation is monitored by analyzing the Transmission Company’s data on technical aspects of the transmission system operation, which are presented in addition to indices of continuity of customer supply ENS and AIT, also by SAIFI and SAIDI indices.

SAIFI and SAIDI indices are obtained by monitoring the number and duration of interruptions in TRANSCO’s facilities resulting in supply interruptions for customers directly connected to the transmission network and/or supply interruptions in middle voltage feeders exceeding three minutes.

Tables 3 and 4 show the SAIFI and SAIDI indices for the past five years. Table 3 includes only interruptions caused by events in the network under TRANSCO jurisdiction, while Table 4 also includes interruptions in middle voltage feeders in TRANSCO sub-stations caused by events in the distribution network.

⁴ A map of the power system of Bosnia and Herzegovina is provided in Annex C of this Report.

SAIFI (System Average Interruption Frequency Index) indicates the average number of interruptions per customer during a year.

SAIDI index (System Average Interruption Duration Index) indicates the average interruption duration for each customer in minutes per year.

ENS – Energy Not Supplied

Table 3: SAIFI and SAIDI for the transmission network

	2009	2010	2011	2012	2013
Planned interruptions	1.89	2.06	0.90	0.87	0.83
SAIFI Unplanned interruptions	1.73	1.00	0.94	1.16	1.01
<i>Total</i>	3.62	3.06	1.84	2.03	1.84
Planned interruptions (min/customer)	324.46	213.07	142.69	146.62	124.36
SAIDI Unplanned interruptions (min/customer)	77.14	94.17	52.00	142.24	55.69
<i>Total (min/customer)</i>	401.60	307.24	194.69	288.87	180.05

Table 3: SAIFI and SAIDI for the transmission network including outages of middle voltage feeders caused by interruptions in the distribution network

	2009	2010	2011	2012	2013
Planned interruptions	6.16	7.08	4.93	4.27	4.52
SAIFI Unplanned interruptions	11.85	10.04	9.07	8.53	9.35
<i>Total</i>	18.01	17.12	14.00	12.80	13.87
Planned interruptions (min/customer)	810.02	533.78	516.17	393.93	404.33
SAIDI Unplanned interruptions (min/customer)	661.66	742.87	459.32	729.96	474.87
<i>Total (min/customer)</i>	1,471.68	1,276.65	975.49	1,123.89	879.20

3.6 Tariff Proceedings

Tariff Proceedings for Operation of Independent System Operator and Ancillary Services Launched in 2012

Tariff proceedings for operation of independent system operator and ancillary services were launched at the initiative of the regulated entity in November 2012, and finalized by the adoption of a decision in January 2013.

The Independent System Operator makes stable expenditures in spite of the obvious increase in costs incurred through international cooperation, which are mostly associated with membership fees in international associations and activities in their working groups. An additional cost in comparison to the previous period is the fee for funding of the Project Team Company of the South East Europe Coordinated Auction Office (SEE CAO). The intensified work at the international level is a consequence of the ever greater degree of integration of European energy networks and systems.

Tariff Proceedings for Operation of Independent System Operator and Ancillary Services Launched in 2013

Pursuant to the legal obligation to submit for consideration applications for revenues and expenditures in the following year as well as costs that the Company plans to include in the tariffs for system operation, ISO BIH filed a tariff application in November 2013, in which it presented and reasoned planned revenues, expenditures and costs in 2014.

Stagnation in consumption, that is, withdrawal of electricity from the transmission network in the previous two years, even a failure in comparison to planned volumes, caused poorer realization of the ISO BIH financial plan in 2013 as well as corrections of the revenue requirement in 2014 and minor adjustment of the tariff.

To maintain the ISO BIH liquidity, funds for the creation of necessary financial reserves were approved to this regulated entity.

Tariff proceedings for ancillary services were conducted in parallel with tariff proceedings for operation of ISO BIH. Aware of all shortcomings of the existing model for the provision of ancillary services, SERC decided to initiate activities in 2014 to enhance this extremely important segment of the power system operation.

The Next Tariff Proceedings

Based on discussions after regulatory monitoring of “Elektroprijenos/Elektroprenos BIH” and “Komunalno Brčko” and collected data and information on business performance of these companies, in November 2013, SERC decided to initiate tariff proceedings for services of electricity transmission and tariff proceedings for determination of tariffs for customers in Brčko District BIH in March 2014, after financial indicators of performance of “Elektroprijenos/Elektroprenos BIH” and “Komunalno Brčko” in 2013 become known.

3.7 Electricity Market

Power Indicators

In 2013, the BIH power sector operated under very favorable hydrological conditions. Inflows were considerably higher than the multiannual average which resulted in a high level of electricity generation by hydro power plants which produced 7,124 GWh, which is even by 71.7% higher than in the previous year. Thermal power plants produced 8,940 GWh, which is a growth of 3.7% compared to the result in 2012. Generation by small hydro, solar and wind power plants amounted to 234.2 GWh, while industrial power plants produced 5.1 GWh.

After the first solar plants started to operate in 2012, in 2013 generation in the first BIH wind power plant also began – Moštre 1, Visoko municipality, with installed capacity of 300 kW. The trend of connecting solar power plants continued. Although a strong expansion in construction of renewable sources exists, these are still facilities with smaller capacity which, as a rule, are connected to the distribution network. However, in the near future construction of larger power plants using renewable sources is expected, which will be connected to the transmission network.

Figure 1. Balance volumes realized in 2013 (GWh)

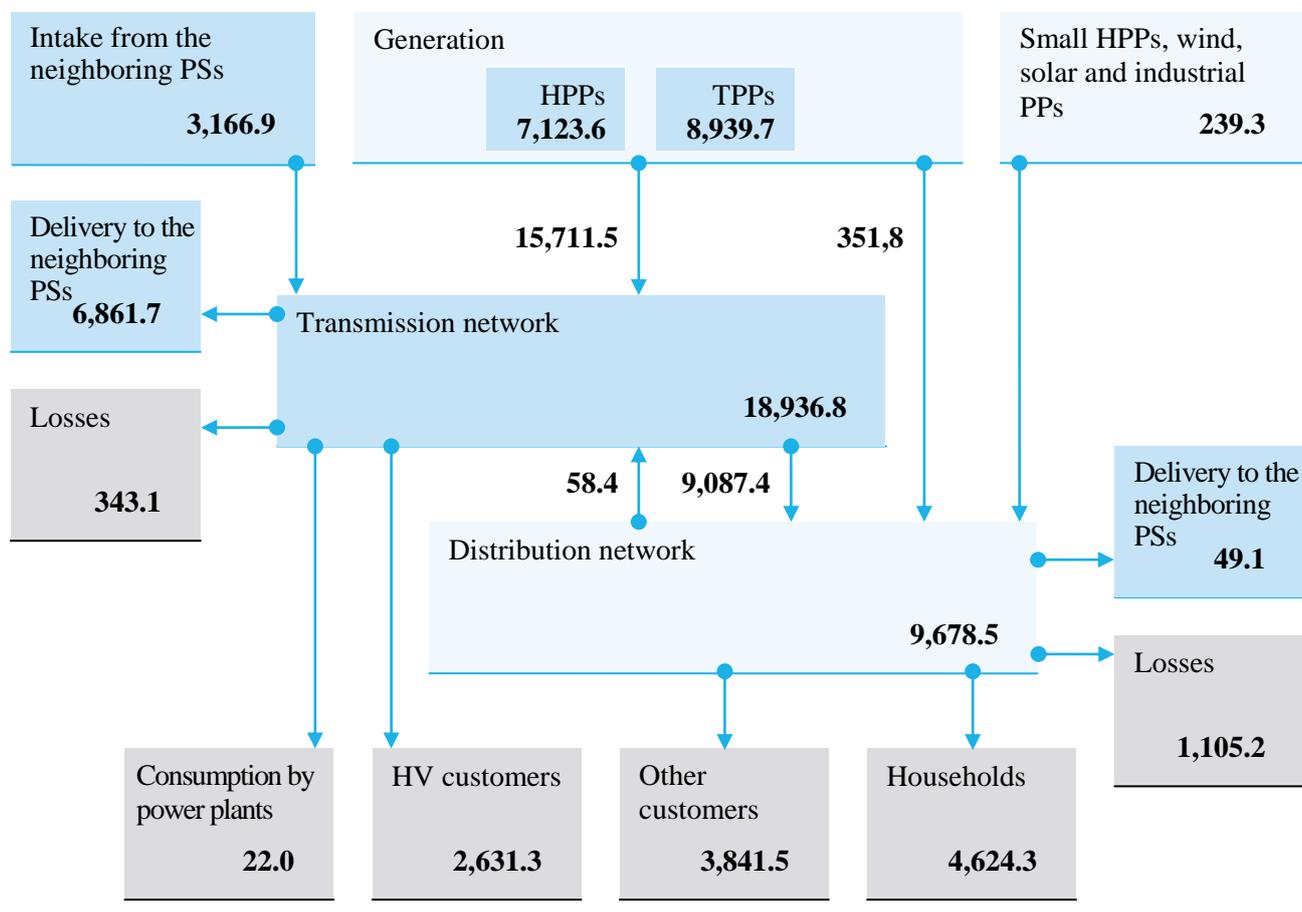
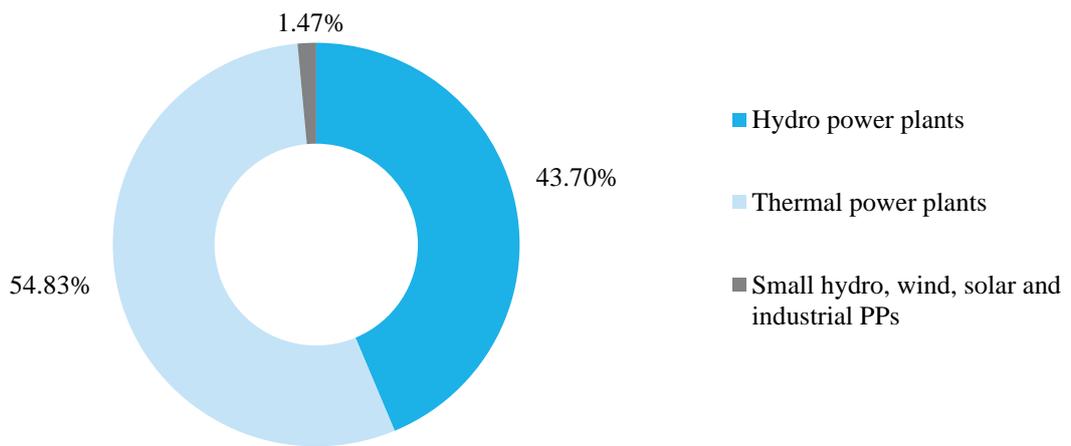


Figure 2. Break-down of electricity generation in BIH in 2013



Total generation of power plants in BIH amounted to 16,303 GWh, which is a historic record in generation which was by 26% higher than generation in 2012. Furthermore, a high balance of surplus was reached amounting to 3,744 GWh, as a difference between total generation and total consumption in BIH. An overview of power balance volumes realized in 2013 and the percentage share, that is, the break-down of electricity generation in 2012, are provided in Figure 1 and Figure 2 respectively.

Figure 3. Energy taken in BIH from the transmission network – monthly data (GWh)

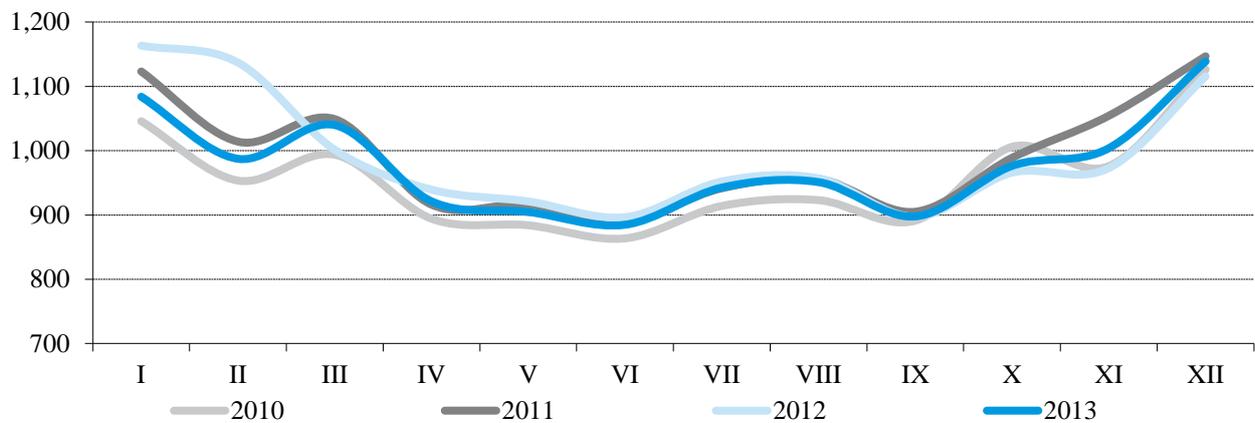
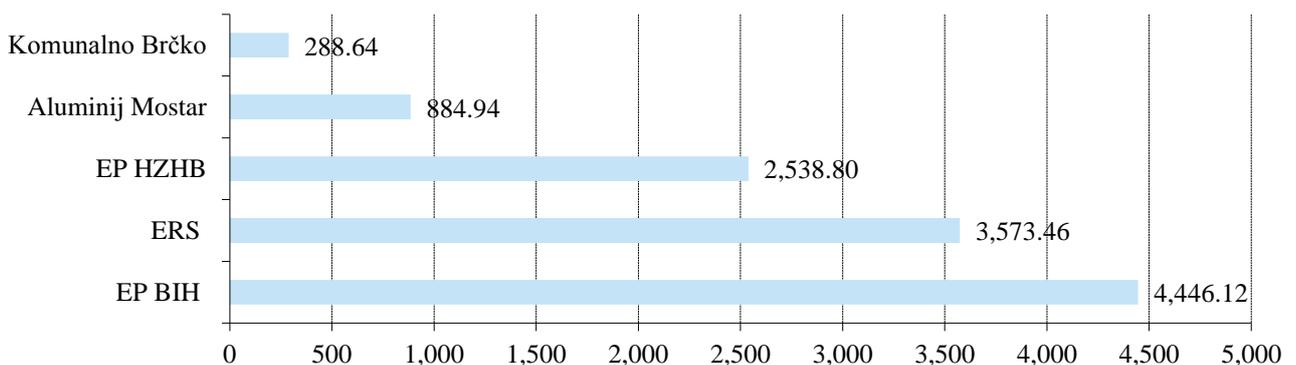


Figure 4. Energy taken in BIH from the transmission network by entities (GWh)

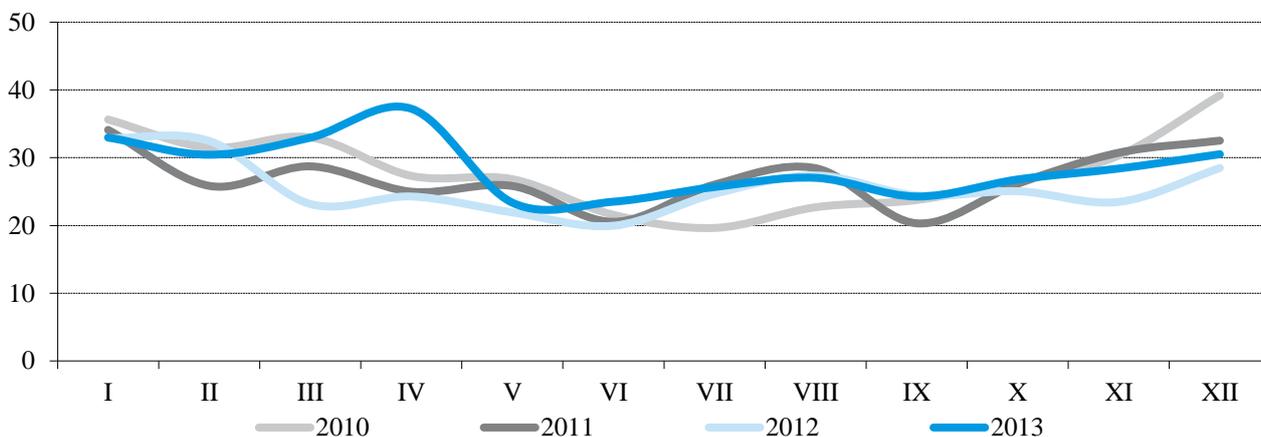


In comparison to the previous year, total electricity consumption decreased by 0.5%, with consumption of customers connected to the transmission network being lower by 2.9%, while distribution consumption was higher by 0.4%.

Electricity taken from the transmission network amounted to 11,732 GWh which is a decrease of 1.6% in comparison to 2012. Data on energy taken from the transmission network by months and entities are presented in Figures 3 and 4 respectively. A maximum load of the power system in 2013 amounted to 2,074 MW, and was recorded on 24 December 2013 at 18:00 hrs. This did not exceed a maximum of 2,173 MW, which is a historic record registered on 31 December 2010 at 18:00 hrs.

Transmission losses amounted to 343 GWh, i.e., 1.81% in relation to total energy in the transmission network, which is somewhat less than the percent of the losses in 2012, when they amounted to 1.84%. A considerable increase in electricity in the transmission network as a consequence of a significant increase in generation certainly caused an increase in the amount of absolute loss by 11.3% in comparison to the previous year. Data on monthly losses in the transmission network are provided in Figure 5. The trend of reducing distribution losses continues and they amounted to 1,105 GWh or 11.5% in relation to gross distribution consumption, which further improved the last year's result of 12.5%, which was the lowest level in the past twenty years.

Figure 5. Monthly losses in the transmission network (GWh)



Regional Electricity Market

The regional electricity market in 2013 was characterized by moderate dynamics. As a consequence of very favorable hydrological conditions throughout the whole region as well as the whole continent, prices in the wholesale market continued to drop. For most part of the year prices ranged between 40 and 45 €/MWh, with a decreasing trend, and eventually they fell below the limit of 40 €/MWh at the end of the year. The reasons

may be found in the economic crisis lasting since 2008, which resulted in stagnation and reduction of consumption in this region, plentiful supply in the market by the countries where nuclear and thermal power plants have a significant share in generation (Ukraine, Bulgaria), and the increasing share of energy from renewable sources, in particular wind power plants.

Electricity Market in BIH

In 2013, total electricity consumption in BIH amounted to 12,559 GWh recording a 0.5% decrease unlike the increase of 0.3% recorded one year earlier. Customers connected to the transmission and distribution networks took 2,623 GWh or 2.9% less, and 9,571 GWh, or 0.4% more than last year respectively. Of this amount, 8,466 GWh was taken over by end customers while 1,105 GWh pertains to losses in the distribution network. Total sale to customers in BIH increased by 0.4% and amounted to 11,088 GWh. The average selling price for tariff customers and customers supplied by default suppliers amounted to 0.0690 €/kWh. Total value of sale to these customers amounted to € 703.5 million and was increased by € 7.7 million (1.1%) in comparison to 2012. The average selling price increased by 0.5%. The average selling price for households increased by 0.2% amounting to 0.0689 €/kWh. In 2013, tariff rates for households remained unchanged and minor increase in the average selling price is a consequence of changes in consumption patterns. Trends of average electricity prices for end customers in Bosnia and Herzegovina are presented in Figure 6, while Figure 7 gives an overview of average electricity prices of the power utilities per customer category in 2013.

Total business results of the companies in the sector improved in comparison to the previous year due to exceptionally favorable

Figure 6. Average electricity prices by customer category, excluding VAT (€/kWh)

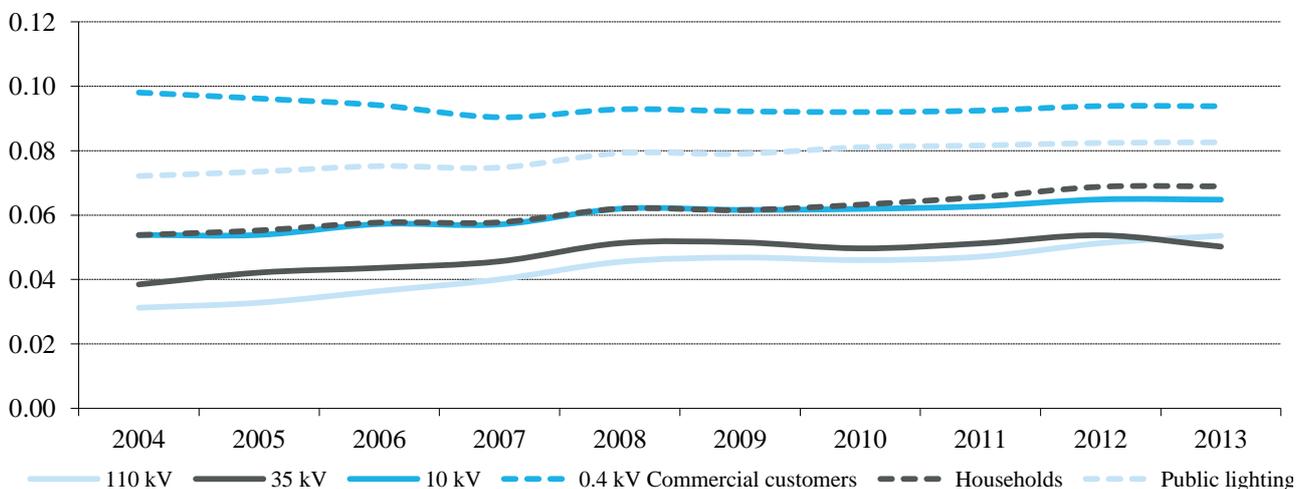
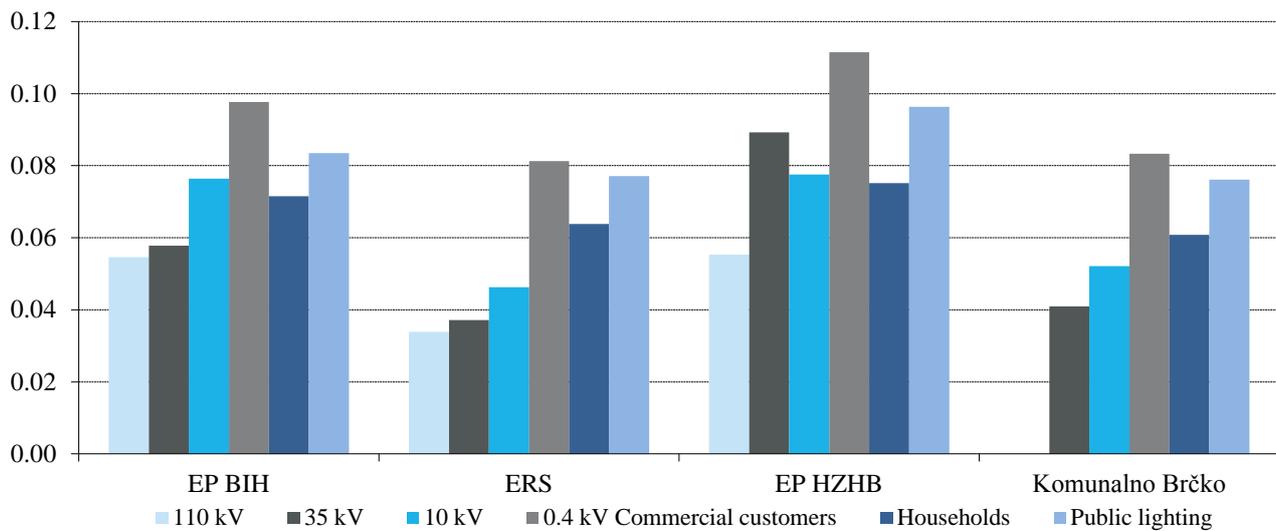


Figure 7. Average electricity prices by public utility excluding VAT (€/kWh)



circumstances for generation by hydro power plants. This situation had a positive impact on business performance of Elektroprivreda HZHB in particular, while Elektroprivreda BIH and Elektroprivreda RS encountered a drop in prices notwithstanding the increase in sale in the regional market. Eventually, total sale of electricity to domestic customers and those in the region exceeded € 920 million, which is the highest level of sales to date.

Deregulation processes continued in the retail market. Changes reflect in decisions of the competent regulatory commission not to issue tariff rates for those consumption categories which cannot be regulated any longer pursuant to the adopted and applicable legislation on the market opening. Regulation of tariffs for customers connected to the transmission network was abolished, while for other customers the abolition of regulation goes at a slower pace in accordance with the interim period as defined by the competent regulators.

The number of electricity customers in BIH was steadily increasing, and at the end of 2013 it reached a total of 1.492 million. In the process, a total number of customers during the year increased by 16,280, with 14,659 customers belonging to the

Table 5. Number of customers by supplier in BIH

	110 kV	35 kV	10 kV	0.4 kV (Commercial)	Households	Public lighting	Total
Elektroprivreda BIH	5	58	756	60,415	659,705	3,668	724,607
Elektroprivreda RS	8	32	837	34,689	503,661	1,054	540,281
Elektroprivreda HZHB	3	1	165	14,531	173,488	1,812	190,000
Komunalno Brčko	-	1	13	4,200	32,698	414	37,326
Total	16	92	1,771	113,835	1,369,552	6,948	1,492,214

category of households. The number of customers by supplier in BIH is provided in Table 5.

The BIH retail electricity market is still characterized by the domination of public power utilities, which traditionally supply 1,492,214 customers each in its own (*de facto* but not *de jure*) exclusive geographic area. In 2013, as in the previous period, only “Aluminij” Mostar purchased electricity on the market, meeting 48.3% of its consumption needs by buying 884.94 GWh in the market. With this, 8.0% of total energy consumed by end-customers in Bosnia and Herzegovina was purchased in the market.

Cross-Border Trade

Good connections of the BIH system with the neighboring power systems enable sale of electricity to the countries in the region which have significant shortages.

In 2013, export increased significantly as the result of strong growth in generation. Total export amounted to 5,097 GWh, which is a 225% increase in comparison to export volumes in the previous year. At the same time, this is the highest annual export in the history of the power system in BIH. Furthermore, in March 2013 a historic record in export was recorded on a monthly level of 799 GWh. In total, 16 entities exported electricity, among which Elektroprivreda BIH with 1,001 GWh of exported electricity was the leader in terms of the export scope, followed by Elektroprivreda RS and GEN-I with 873 GWh and 558 GWh respectively.

The largest scope of cross-border exchange is traditionally realized with Croatia and Montenegro respectively, and the smallest with Serbia (Table 6). Croatia and Montenegro still have significant balance deficits and, thus, are among the leading importers at the regional level as well. Electricity import amounted to 1,382 GWh, with the largest importer being “Aluminij” Mostar as in the previous years, with the amount of 508.7 GWh imported for self-consumption. 16 entities were involved in electricity import activities with the largest importer being “Aluminij” Mostar followed by GEN-I with 310.7 GWh.

Table 6. Cross-border trade per border, including transit (GWh)

<i>Country</i>	<i>Export</i>	<i>Import</i>
Croatia	3,300.0	1,327.4
Serbia	1,699.2	761.1
Montenegro	1,242.8	438.0
Total	6,242.0	2,526.5

Figure 8. Overview of trading in BIH by entities in 2013 (MWh)

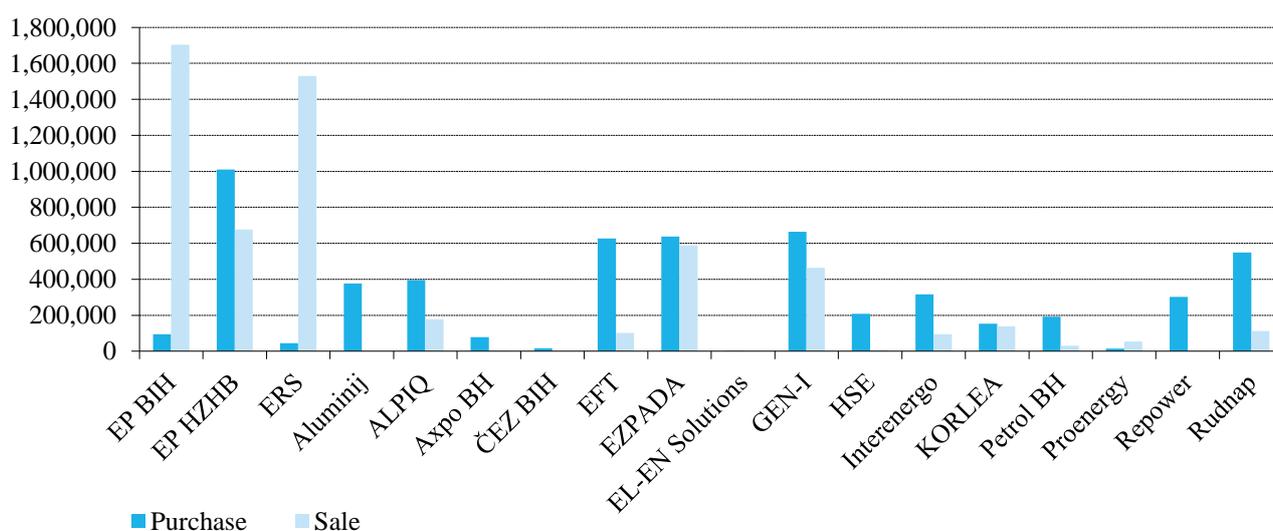
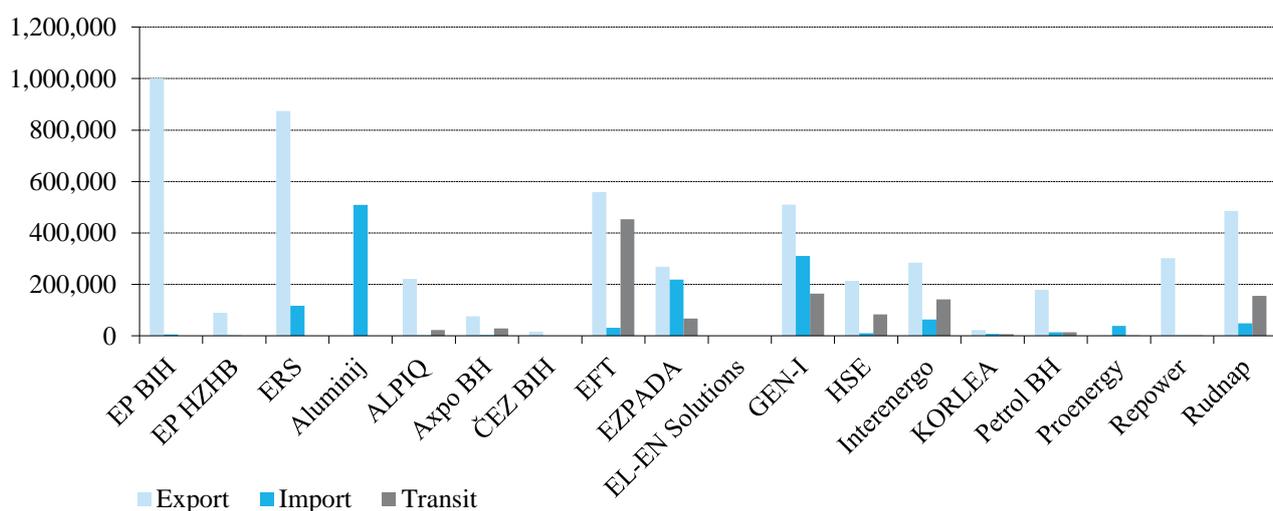


Figure 9. Overview of cross-border transactions by entities in 2013 (MWh)



In 2013, registered transit of electricity through the BIH transmission network amounted to 1,145 GWh, which is a decrease of 46% in comparison to 2012. Transit flows are important because their scope is used as the basis for determining revenues of every country participating in the inter-TSO compensation mechanism (ITC mechanism), which is described in more detail in earlier SERC reports on activities. Total revenue realized by Bosnia and Herzegovina in the first nine months of 2013 amounted to € 406,145.61, while for the whole year of 2012, it amounted to € 3,443,522.71. It is evident that the decrease in transit flows and increase in export had a negative impact on the revenue on the basis of ITC mechanism.

Since 2010, ISO BIH has applied the *Rules of Allocation of the Right to Use Cross-Border Transmission Capacities*, organizing auctions on a daily, monthly and annual basis.

Table 7. Revenues realized on annual auctions

Year	Revenue (BAM)
2011	4,789,300
2012	4,970,880
2013	2,036,125
2014	2,905,655
Total	14,701,960

Revenues realized to date on the basis of auctions for allocation of cross-border transmission capacities on an annual basis are provided in Table 7.

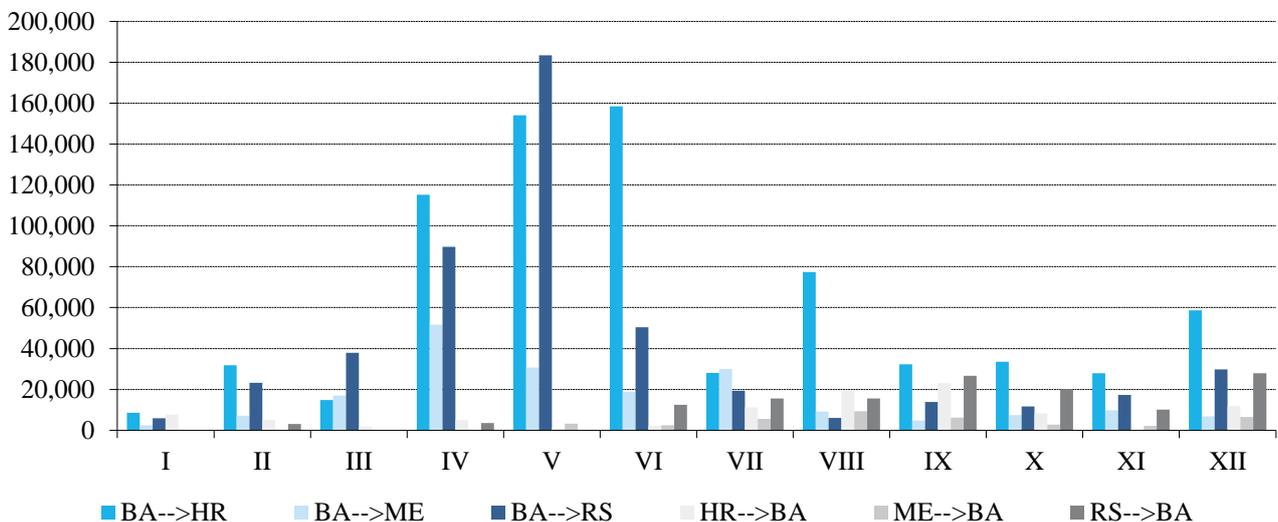
At an annual auction for 2014, at the auction held in December 2013, available cross-border auction capacity was allocated to 12 registered companies. The revenue of € 1,485,638 was realized. The highest price was reached on the border with Croatia in the direction from BIH to Croatia in the amount of 4,380 €/MW.

The total revenue on the basis of monthly auctions in 2013 amounted to € 1,694,253.8 (Figure 10). The highest price at a monthly auction for allocation of cross-border capacities amounting to 1,540.2 €/MW was reached on the border with Croatia in the direction from BIH in May 2013.

In 2013, auctions of cross-border capacities on a daily basis were also conducted, with the resulting revenue of € 87,947.

The user of all revenues from auctions for allocation of the right to use cross-border capacities as well as revenues realized by the application of the ITC mechanism is “Elektroprijenos/Elektroprenos BIH”.

Figure 10. Income on the basis of monthly auctions, per borders and directions (€)



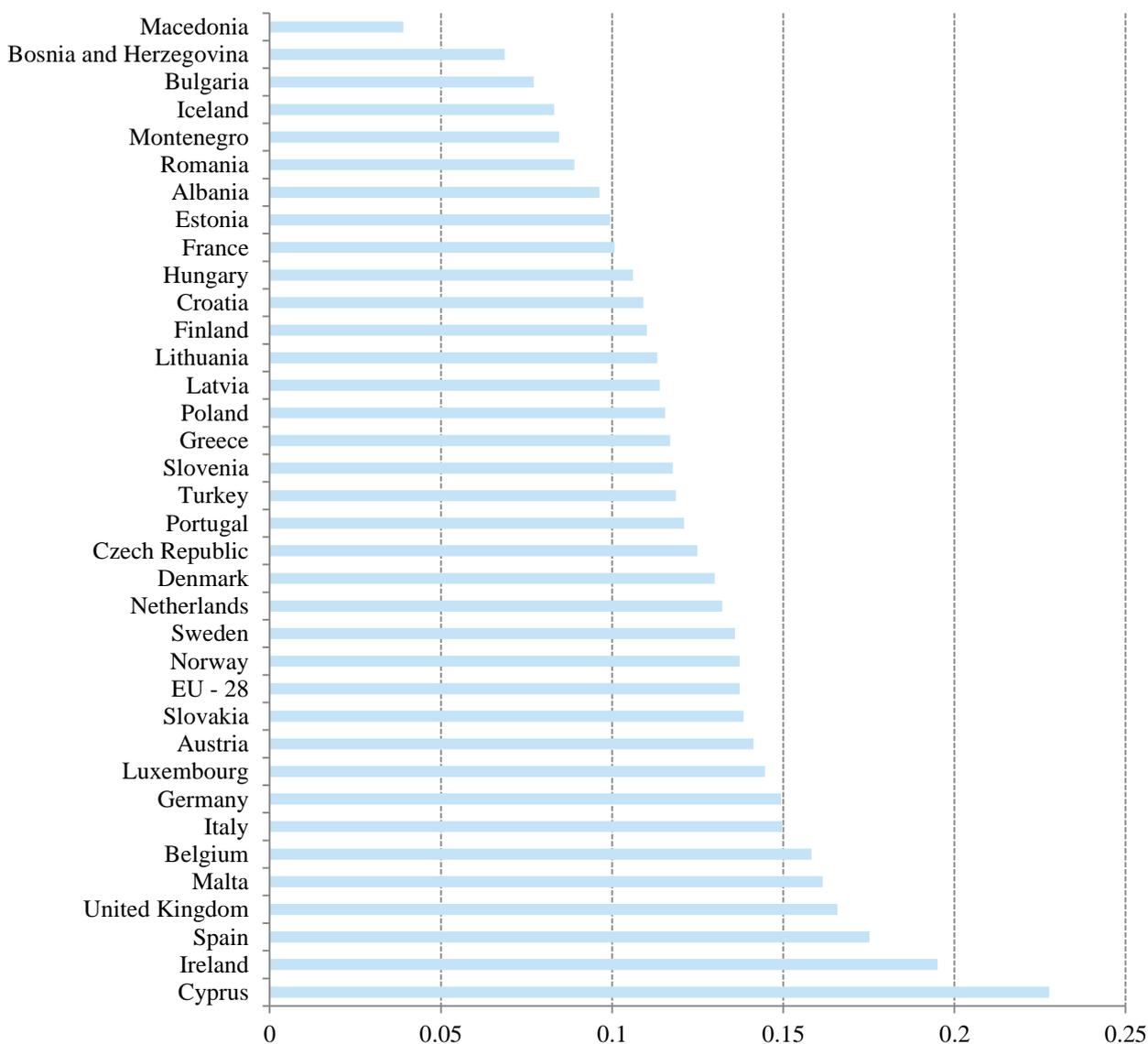
3.8 Energy Statistics

Meeting the needs of not only regulatory authorities but also a number of other institutions and economic stakeholders for quality and reliable statistical data, on 19 April 2011, the State Electricity Regulatory Commission and the Agency for Statistics BIH signed a Memorandum establishing the basis for mutual cooperation in the field of collecting statistics of relevance for activities of both institutions and the whole BIH energy sector.

The cooperation between the two institutions contributes to energy statistics development and harmonization of the BIH official system of statistics with statistics of the European Union countries in all fields, in particular in the field of energy statistics.



Figure 11. Electricity prices expressed in €/kWh for households (annual consumption from 2,500 to 5,000 kWh) in 2013, using Eurostat methodology



Note: The given amounts do not include VAT

Figure 12. A geographic overview of electricity prices for households (in €/kWh) in 2013, using Eurostat methodology

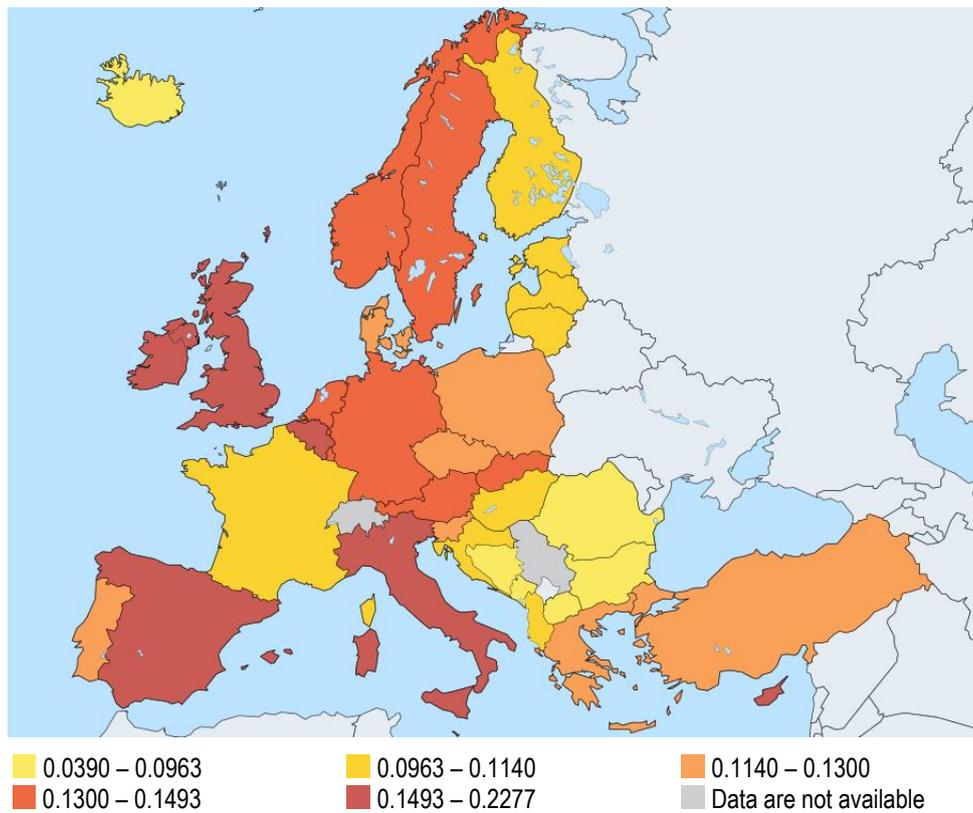
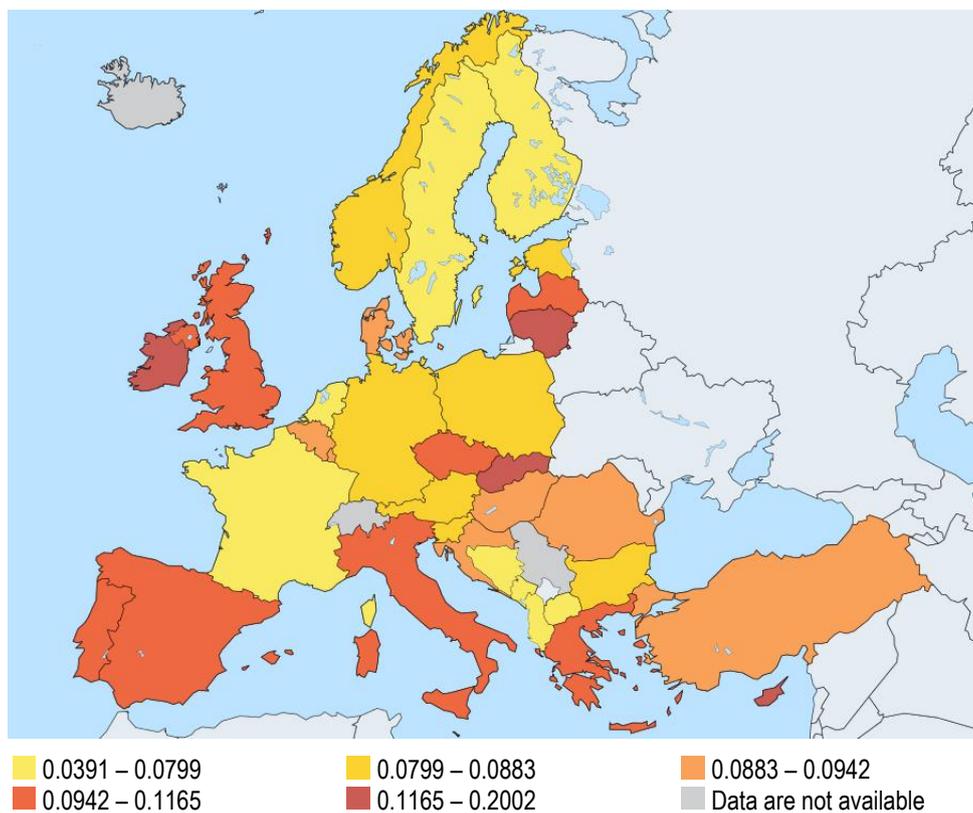


Figure 13. A geographic overview of electricity prices for industrial customers (in €/kWh) in 2013, using Eurostat methodology



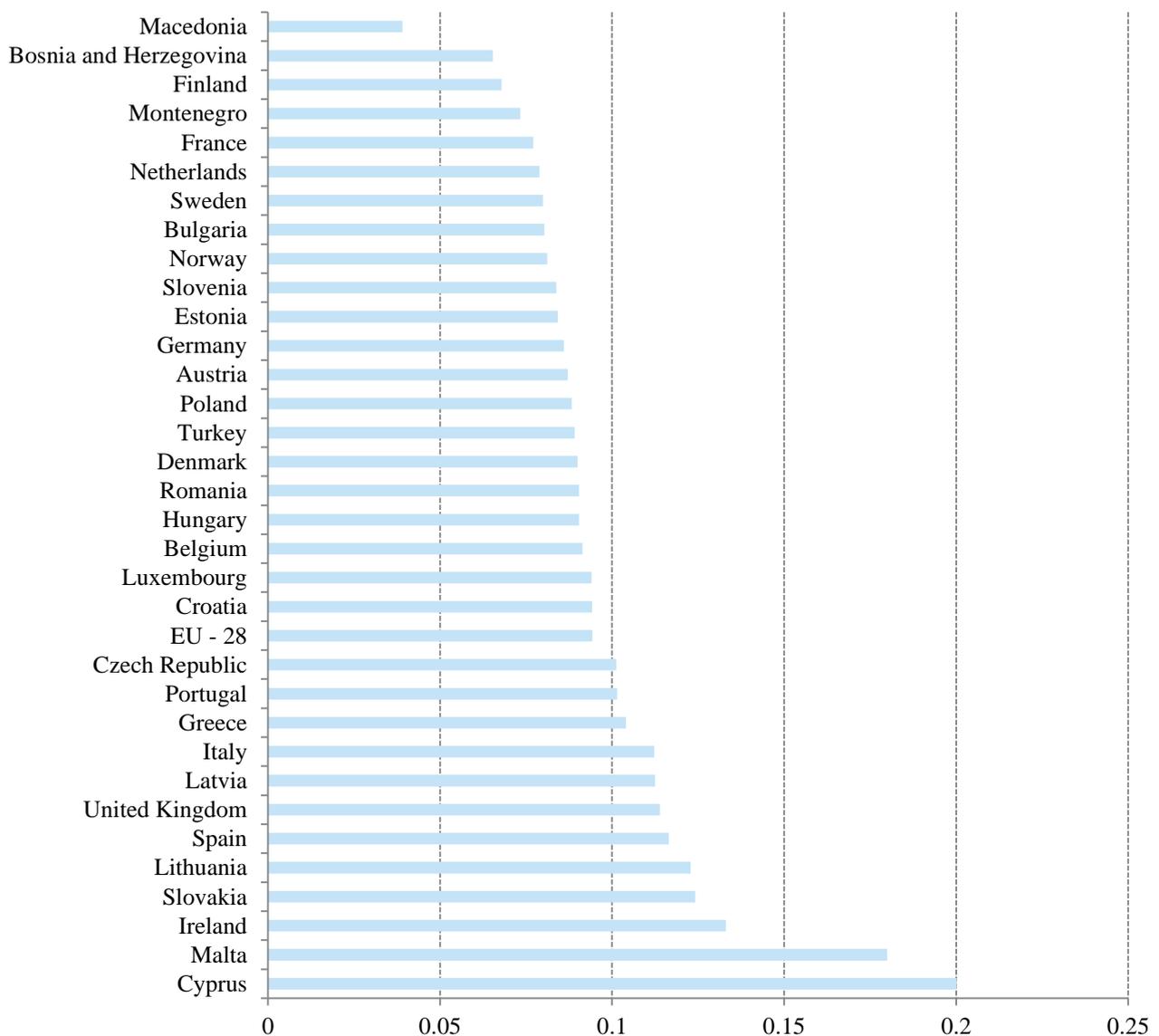
The relevance of cooperation between the State Electricity Regulatory Commission and the Agency for Statistics BIH increased especially after the extension of the Energy Community *acquis*, which, after the adoption of the October 2012 decisions of the Ministerial Council in the field of energy statistics, includes Regulation 1099/2008/EC on energy statistics and Directive 2008/92/EC concerning a procedure to improve the transparency of gas and electricity prices.

The results of the cooperation between the two institutions are recognizable in Eurostat's reports, which include data on electricity and gas prices in Bosnia and Herzegovina since 2011 (<http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data>), thus enabling their comparison with EU countries and some countries that are in the EU accession process (Figures 11,12, 13 and 14).



Eurostat is the statistical office of the European Union situated in Luxembourg. Its task is to provide the European Union with statistics at European level that enable comparisons between countries and regions.

Figure 14. Electricity prices expressed in €/kWh for industrial customers (annual consumption from 500 to 2,000 MWh) in 2013, using Eurostat methodology



Note: The given amounts do not include VAT

3.9 Other Activities

In addition to the aforementioned activities, in 2013 SERC also exchanged data with a number of state institutions including the BIH Council of Ministers, Directorate for Economic Planning of the BIH Council of Ministers, the Council of Competition of BIH, the Foreign Investments Promotion Agency in BIH, the Agency for Statistics BIH, and prepared different types of information they needed. Following positions and recommendations from international gatherings of several associations which bring together representatives of regulatory authorities in the energy sector and the field of the protection of market competition, at the end 2013, SERC initiated the signing of a Memorandum of understanding on cooperation with the Council of Competition of BIH. SERC gave a particular contribution to activities of a temporary Subcommittee on Transportation, Environment, Energy and Regional Development. In line with its legal powers to act in the area of Brčko District of Bosnia and Herzegovina as a regulatory authority, through its activities SERC cooperates with the Government of Brčko District BIH.

Since their establishment, the State Electricity Regulatory Commission, the Regulatory Commission for Energy in the Federation of BIH (FERK) and the Regulatory Commission for Energy of the Republika Srpska (RERS) cooperate and harmonize their activities.

One of the most important fields of activities of the regulatory commissions in BIH in 2013 was to define solutions for successful functioning of the electricity market, in particular during an interim period of the market opening. The focus of activities was on preparations for the establishment of an organized wholesale market in Bosnia and Herzegovina. Documents and notifications prepared in this regard were submitted to the BIH Council of Ministers and entity governments in order to familiarize them with the identified preconditions and obstacles as well as proposed solutions. Due to lack of the expected response and adequate result by the energy policy makers, the postponement of establishing the organized wholesale electricity market in BIH continued.

The activities given in the *Regional Action Plan for Electricity Wholesale Market Opening in the Energy Community* prepared by several Energy Community institutions, primarily by the Permanent High level Group (PHLG) and the Regulatory Board (ECRB), as well as the Regional Group for South East Europe of the European Network of Transmission System Operators for Electricity (ENTSO-E), were among the priorities in the Energy Community activities in 2013 as well.

The Regional Action Plan emphasizes the necessity of the concurrent development of regional and local markets on the basis of local action plans for the establishment of organized wholesale electricity markets, which all parties to the Energy Community are obligated to prepare, also including Slovenia, Hungary, Greece, Bulgaria and Romania.

Technical Assistance of the European Commission

In 2013, the European Commission continues to implement a Technical Assistance Exercise for consolidation of the electricity supply and development of an EU-*acquis*-compliant legislative framework in the field of electricity in BIH. With this program the European Commission supports the fulfillment of a commitment of Bosnia and Herzegovina, stemming from the Stabilization and Association Agreement in the domain of electricity and the legal obligations of BIH under the Treaty Establishing the Energy Community in the energy sector of BIH.



After successfully completing activities on the support to the creation of a framework for security of electricity supply in Brčko District BIH, including the introduction of regulatory practice in Brčko District BIH, and a Report providing an overview of compliance of BIH primary electricity legislation with the EU *acquis*, the project *Development of an EU-*acquis*-compliant legislative framework in the field of electricity in Bosnia and Herzegovina* was a logical activity.

The main purpose of the Project which was launched at the end of 2012 and nominally lasted until December 2013, was to provide technical assistance with a complex overview and harmonization of legislation at different administrative levels in BIH (national, entity, and Brčko District BIH) in order to make national legislation compliant with the EU legislation, including the Third Energy Package and taking into consideration the best legal and regulatory experience.

Transposition of the applicable EU legislation is organized in such a way as to enable full harmonization of legislation at all administrative levels in BIH (taking into account their separate jurisdictions and regulatory powers) with the EU *acquis* on electricity until the set deadline, that is, until 1 January, 2015.

Several educational workshops, a number of meetings of working groups established for each administrative level and several coordination meetings of all the groups including representatives of the competent ministries, regulators and power entities were organized within the project.

The final result of the project is a set of proposals for new laws, and in some cases proposals for amendments to the existing laws at the national, entity and Brčko District level. In addition, selected pieces of secondary legislation in the field of electricity were processed to the extent it was found necessary and possible.

Representatives of the State Electricity Regulatory Commission will continue to participate in all activities concerning the development of the EU *acquis*-compliant legal framework which is one of the most complex and most comprehensive obligations of Bosnia and Herzegovina stemming from the European integration process in general.

Regulatory and Energy Assistance Project

Activities related to the market opening issues in BIH and the entire power sector reform in BIH were supported by the United States Agency for International Development (USAID) in 2013 as well, through the Regulatory and Energy Assistance Project (*REAP*).

The REAP project, which lasted from March 2007 to November 2013, supported BIH energy sector integration into the regional and European Union markets and restructuring and commercialization of energy companies.

The REAP project was focused on technical aspects of the market opening and functioning through direct work with the regulatory commissions on identifying preconditions and proposing possible solutions. During the project, the initial Market Working Group established by the regulators with the aim to identify and remove obstacles to the electricity market opening, was naturally divided into thematic subgroups and working teams which comprised representatives of power utilities and other entities in the energy sector, including the academic community.

Representatives of the State Electricity Regulatory Commission fully contributed also to the work of subgroups dedicated to the issues of regional market functioning, ancillary services and balancing, case study analysis, load research, and an interim period of the market opening as well as the working teams on (i) Metering, (ii) Billing and collection, (iii) Distribution system operator (DSO) as a facilitator of the retail market, (iv) Balancing and load profiling and (v) Contracts.

An added value of the project presents the knowledge gained in a number of seminars and workshops as well as during joint work in meetings and within preparations of numerous documents and brochures such as:

- Document on obstacles, preconditions and solutions to the successful functioning of the electricity market in BIH,
- Document on the transition period in the process of electricity market opening,
- Document on recommendations of a World Bank Study on Wholesale Market Opening in South East Europe,
- A blueprint for the development of Action plan for designing an organized wholesale electricity market in BIH,
- Gap analysis of legal and regulatory barriers to the successful functioning of BIH's electricity market and recommended improvements,
- Proposed solutions for improving ancillary services provision and balancing mechanism in BIH,

- Load Research Guidelines,
- Role of the Distribution System Operator as neutral retail market facilitator.

The aforementioned documents were prepared in order to familiarize the BIH Council of Ministers and entity governments, as energy policy makers, with the identified preconditions and obstacles. Their particular importance is reflected in a proposal for a solution to removal of obstacles and a proposal for activities to be undertaken in the forthcoming period for successful functioning of the electricity market in Bosnia and Herzegovina.

A conference on “Electricity Market in BIH – the Next Steps” which was organized within the REAP project was used to present the achieved results both to the public and numerous representatives of the sector from BIH and the region.

Security of Supply at the Distribution Level in South-East Europe

At the beginning of 2013, the United States Agency for International Development (USAID) and the United States Energy Association (USEA) launched a project for assistance to distribution companies, that is, distribution system operators (DSOs) in South-East Europe regarding the security of supply. Representatives of companies and regulatory authorities from Albania, Bosnia and Herzegovina, Montenegro, Croatia, Macedonia and Serbia participate in the project.



The project includes the following issues:

- Optimization of distribution system development planning,
- Extension of life span of equipment and infrastructure,
- Reduction of losses,
- Introduction of smart grid technologies,
- Integration of renewable sources into the distribution system,
- Safety at work and safety standards,
- Operation of DSOs in emergencies,
- Regional cooperation and mutual assistance,
- Benchmarking and latest practice and experience.

The aim of the project is to present its concrete results through analytical studies, benchmarking, handbooks and recommendations.

Results of Resolved Court Disputes

All five court rulings of the Court of Bosnia and Herzegovina confirmed the lawfulness of the SERC decisions that were disputed before court by legal persons whose applications were decided upon after the completion of the tariff proceedings. No new applications for revision of any decision from the SERC regulatory practice were filed in 2013 by any person that has standing to commence an action.

4. INTERNATIONAL ACTIVITIES

4.1 Energy Community



The Treaty Establishing the Energy Community, which was signed in Athens on 25 October 2005, and came into effect on 1 July 2006, provides for the creation of the biggest internal market in the world for electricity and gas, with effective participation of the European Union on one side, and the following eight Contracting Parties: Albania, Bosnia and Herzegovina, Kosovo*, Macedonia, Moldova, Montenegro, Serbia and Ukraine.⁵

In accordance with their expressions of interest, the following countries participate in the work of the Energy Community bodies: Austria, Bulgaria, Czech Republic, Croatia, Cyprus, Finland, France, Germany, Greece, Hungary, Italy, the Netherlands, Poland, Romania, Slovakia, Slovenia and the United Kingdom. These seventeen countries have the status of Participants and directly participate in the work of the Energy Community bodies; in the voting procedure their positions are expressed by votes of the European Commission.

Armenia, Georgia, Norway and Turkey have observer status in the Energy Community bodies. Georgia is expected to become a Contracting Party in 2014.

The main goals of the Energy Community are the creation of a stable and single regulatory framework and market space that ensures reliable energy supply and attracts investments in the electricity and gas sectors. In addition, it assumes the development of alternative sources of gas supply and improvement of the condition of the environment, with the implementation of energy efficiency and the utilization of renewable sources.

By signing the Treaty, the contracting parties from the region are obligated to establish a common electricity and gas market that will operate in accordance with the standards of the EU energy market into which it will integrate. It is to be achieved by gradual transposition of the EU *acquis*, which means the implementation of the relevant EU directives and regulations pertaining to electricity, gas, environment, renewable energy sources, energy efficiency, oil and statistics (Please see Table 8).

The Energy Community was initially established for a 10-year period expiring in July 2016. A Decision on extending the duration of the Energy Community Treaty for a ten-year period, that is, until July 2026, was adopted in October 2013.

* This designation is without prejudice to positions on status, and is in line with United Nations Security Council Resolution 1244 and the International Court of Justice Opinion on the Kosovo declaration of independence.

⁵ The list shows the Contracting Parties on December 31, 2013. Moldova and Ukraine have Contracting Party status as of 1 May 2010 and 1 February 2011 respectively.

Table 8. Energy Community Acquis

The *acquis*, that is, the legal framework of the Energy Community, which has been continuously developing since 2005, continues to focus on two directives foreseeing common rules for internal electricity and gas markets. They are supplemented by rules on cross-border trade, as well as rules in the areas of environment, competition and renewable energy sources. In 2007, the *acquis* was expanded to include the EU directives on security of supply, while as of 2008 the term ‘network energy,’ which initially included electricity and gas, includes the oil sector as well. In 2009 and 2010, the *acquis* was further expanded to include directives on energy efficiency, while in 2011, by the Ministerial Council decision rules comprising the ‘Third Package’, excluding Regulation 713/2009/EC, became legally binding also for the Energy Community Contracting Parties. In 2012, the *acquis* was significantly expanded by directives in the field of renewable sources, minimum oil stocks and statistics and in 2013 by a part of directive on pollution prevention and control and Regulation 838/2010/EU relating to the ITC mechanism and transmission charging.

The Energy Community *acquis* follows the development of the European Union legal framework and at present it includes its key energy legislation in the fields of electricity, gas, environment, competition, renewable energy sources, energy efficiency, oil and statistics.

Acquis on Electricity

- Regulation 838/2010/EU of the European Commission of 23 September 2010 on laying down guidelines relating to the inter-transmission system operator compensation mechanism and a common regulatory approach to transmission charging,
- Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2008 concerning common rules for the internal electricity market and repealing Directive 2003/54/EC,
- Regulation 714/2009/EC of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation 1228/2003/EC,
- European Commission Decision 2006/770/EC of 9 November 2006 amending the Annex to Regulation 1228/2003/EC (Guidelines on the management and allocation of available transfer capacity of interconnections between national systems),
- Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment,
- Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal electricity market,
- Regulation 1228/2003/EC of the European Parliament and of the Council of 26 June 2005 on conditions for access to the network for cross-border exchanges in electricity.

The Contracting Parties have committed to transpose both Directive 2003/54/EC and Regulation 1228/2003/EC into national legislation by 1 July 2007. They have an obligation to open the electricity market also to household customers by 1 January 2015. In December 2007, the *acquis* on electricity was extended to include Directive 2005/89/EC (with the implementation deadline set for 31 December 2009), while in October 2011, Directive 2009/72/EC and Regulation 714/2009/EC from the ‘Third Package’ were adopted with the implementation and transposition deadline set for 1 January 2015. Exceptionally, the implementation deadline for Article 11 of Directive 2009/72/EC shall be 1 January 2017.

Acquis on Gas

- Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal natural gas market and repealing Directive 2003/55/EC,
- Regulation 715/2009/EC of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission network and repealing Regulation 1775/2005/EC,
- Regulation 1775/2005/EC of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission network,
- Directive 2004/67/EC of the European Union Council of 26 April 2004, concerning measures to safeguard the security of natural gas supply,
- Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal natural gas market.

The Contracting Parties have committed to transpose Directive 2003/55/EC into national legislation by 1 July 2007. They have an obligation to open the gas market also to household customers by 1 January 2015. In December 2007, the *acquis* on gas was extended to include Directive 2004/67/EC and Regulation 1775/2005 (with the implementation deadline set for 31 December 2009), while in October 2011, Directive 2009/73/EC and Regulation 715/2009/EC from the ‘Third Package’ were adopted with the implementation and transposition deadline set for 1 January 2015. Exceptionally, the implementation deadline for Article 11 of Directive 2009/73/EC shall be 1 January 2017.

Note: Texts of EU rules provided in this table are available within an internet presentation of the State Electricity Regulatory Commission (www.derk.ba).

Continued on the next page ⇨

⇒ Continuation of Table 8 from the previous page

Acquis on Environment

- Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) – only Chapter III, Annex V and Article 72(3)-(4),
- Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on limitation of emissions of certain air pollutants by large combustion plants (≥ 50 MW),
- Council Directive 1999/32/EC of 26 April 1999 relating to a reduction in the sulfur content of certain liquid fuels and amending Directive 93/12/EEC,
- European Community Council Directive 85/337/EEC of 27 June 27 1985 on assessment of the effects of certain public and private projects on environment, with subsequent amendments of 3 March 1997 (Directive 97/11/EC), and Directive 2003/35/EC of the European Parliament and the Council of 26 May 2003,
- Article 4(2) of the European Community Council Directive 79/409/EEC of 2 April 1979 on conservation of wild birds.

The *acquis* on environment shall be implemented insofar as they affect network energy. While the implementation of Directives 79/409/EEC and 85/337/EEC had to be completed upon the entry into force of the Treaty, the Directive 1999/32/EC was to be transposed into national legislation and implemented by 31 December 2011. The deadline for implementation of Directive 2001/80/EEC and Directive 2010/75/EU shall be 31 December 2017 and 1 January 2018 respectively. According to Article 13 of the Treaty, the Contracting Parties recognize the importance of the Kyoto Protocol and shall endeavor to accede to it.

Acquis on Competition

The following activities are not allowed and shall be assessed pursuant to Article 81, 82 and 87 of the Treaty Establishing the Energy Community:

- Prevention, restriction or distortion of competition,
- Abuse of dominant position,
- Any public aid which distorts or threatens to distort competition.

In particular, with regard to public undertakings and undertakings to which special rights have been granted, provisions of the Treaty Establishing the Energy Community, in particular Article 86, shall be upheld.

Acquis on Renewable Energy Sources

- Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC, and 2003/30/EC,
- Directive 2003/30/EC of the European Parliament and of the Council of 8 May 2003 on promotion of use of bio-fuels or other renewable fuels in transportation,
- Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on promotion of electricity generated by using renewable sources in the internal market.

The deadline for submission of an implementation plan on the Directives 2001/77/EC and 2003/30/EC was 1 July 2007, while the deadline for transposition into national legislation and the implementation of Directive 2009/28/EC shall be 1 January 2014.

Acquis on Energy Efficiency

- Directive 2010/31/EU of the European Parliament and of the Council of 19 May 19 2010 on the energy performance of buildings,
- Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labeling and standard product information of the consumption of energy and other resources by energy-related products.
- Directive 2006/32/EC of the European Parliament and of the Council of 9 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC.

Based on the Energy Community Ministerial Council decisions in 2009 and 2010, the *acquis* was extended to three EU Directives in the area of energy efficiency. The implementation deadlines vary from 31 December 2011 to 1 January 2017.

Acquis on Oil

- Directive 2009/119/EC of the European Parliament and of the Council of 14 September 2009 imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products.

The implementation deadline for this Directive is set for 1 January 2023.

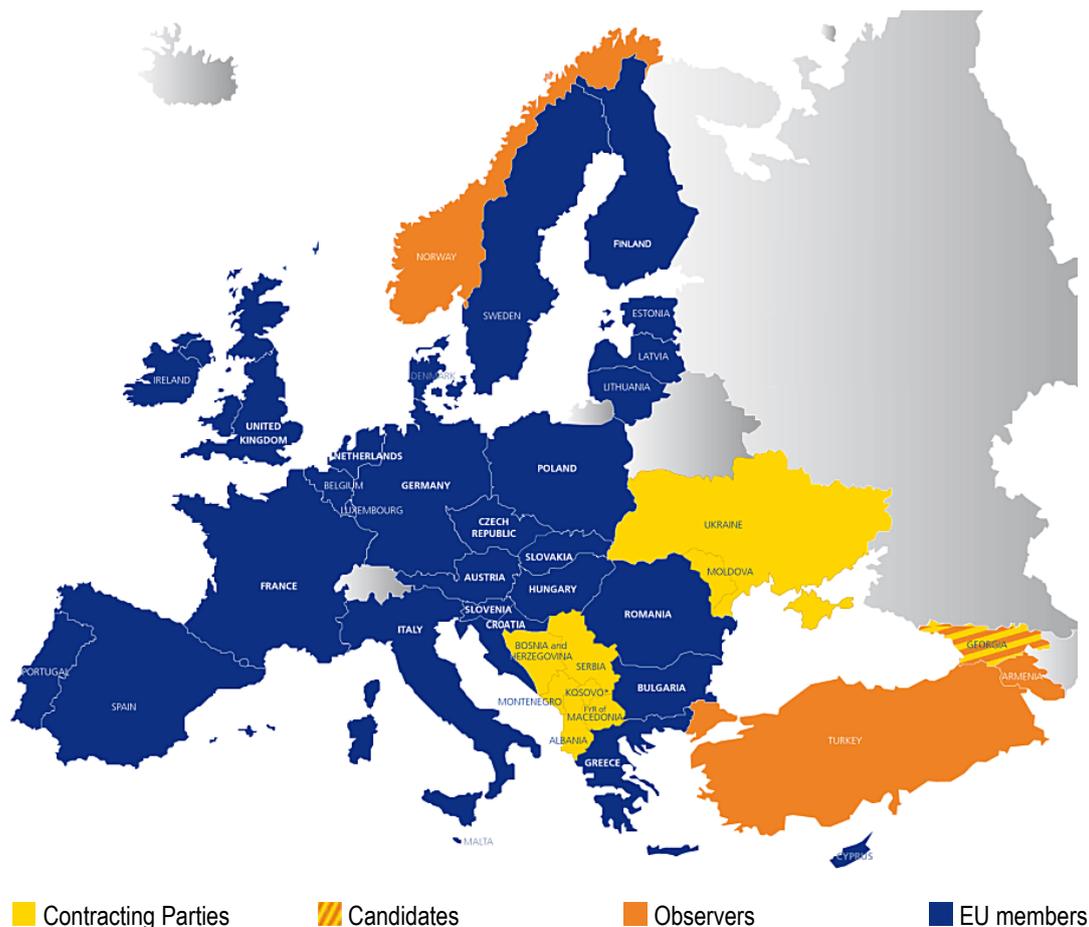
Acquis on Statistics

- Directive 2008/92/EC of the European Parliament and of the Council of 22 October 2008 concerning a Community procedure to improve the transparency of gas and electricity prices charged to industrial end-users,
- Regulation 1099/2008/EC of the European Parliament and of the Council of 22 October 2008, on energy statistics.

The implementation deadline for the *acquis* on statistics is set for 31 December 2023.

In addition to the EU *acquis*, the Ministerial Council adopted several independent measures pertaining to dispute resolution, establishment of the '8th Region' aimed at facilitation of cross-border electricity trade and measures for coordination of security of supply.

Figure 15. Geographic scope of the Energy Community



To ensure an adequate process of establishing and functioning of the Energy Community, the Treaty establishes a Ministerial Council, Permanent High Level Group, Regulatory Board, Electricity Forum (Athens Forum), Gas Forum (Maribor Forum), Social Forum, Oil Forum (seated in Belgrade) and the Secretariat.

The Ministerial Council, as the highest body of the Energy Community, ensures the achievement of goals that are determined by the Treaty Establishing the Energy Community. The Ministerial Council consists of one representative of each Contracting Party and two representatives of the European Union.

The Permanent High Level Group (PHLG) brings together senior officials from each Contracting Party and two representatives of the European Community, ensuring continuity of and follow-up to Ministerial Council’s meetings, implementing agreed activities and deciding on implementing measures in certain cases.

The Energy Community Regulatory Board (ECRB), seated in Athens, is composed of representatives of the regional national regulatory bodies, while the European Union is represented by the European Commission, with the assistance of one regulator of the EU participants and one representative of the Agency for the

Cooperation of Energy Regulators (ACER). ECRB considers the issues of regulatory cooperation and may become a body issuing regional regulatory decisions and serving as a dispute resolution institution. The Regulatory Board has a key role in expanded market operation. According to the opinion of the European Commission, this supranational body may become a role model for other parts of the world.

Energy Community Fora, dedicated to electricity, gas, oil and social aspects, bring together all interested stakeholders, including representatives of governments, regulators, industry, customers and international financial institutions.

The Energy Community Secretariat, seated in Vienna, represents the key administrative actor and, together with the European Commission, ensures the necessary coordination and provides support for the work of other institutions. The Secretariat is responsible for reviewing the proper implementation by the Contracting Parties of their obligations under the Treaty, and it submits yearly progress reports to the Ministerial Council. To this extent, the Secretariat acts as a ‘guardian’ of the Energy Community Treaty while the European Commission plays a general coordinator role.

In the past period, the Energy Community has grown into a mature organization, which provides a solid institutional framework for cooperation, mutual support and exchange of experiences and, therefore, serves as a model for regional cooperation on energy matters.

The year 2013 in the Energy Community was marked by the adoption of a list of Projects of Energy Community Interest (PECIs). These are projects that foster market opening and integration, security and sustainability of supply and promote cross-border cooperation. This initiative should be followed by the adoption of adequate policy and regulatory measures and provision of technical assistance and financial mechanisms. Continuing its activities after the adoption of the regional strategy and recognizing the importance of social aspects of the energy policy, the Ministerial Council adopted *An Outline of the Social Strategy of the Energy Community*. Recognizing the need for strengthening the institutions and instruments for the achievement of the objectives of the Energy Community, the Ministerial Council set up a High Level Reflection Group mandated to make in 2014 an independent assessment of the adequacy of the institutional set up and working methods of the Energy Community to the achievement of the objectives of the Energy Community Treaty.

An indicator of further development of the Energy Community *acquis* is a Decision implementing *Regulation 838/2010/EU of the European Commission of 23 September on laying down guidelines relating to the inter-transmission system operator compensation mechanism and a common regulatory approach to*

Mr. Günther Oettinger, EU Commissioner for Energy: “I welcome the endorsement of the PECIs list by the Ministerial Council today. The PECEI label will help to attract much needed investment into the region – almost € 40 billion is required until 2020. However, the lack of progress on achieving effective market opening and the regional integration of energy markets is worrying. The implementation of the Third Energy Package, as an imperative tool to reach these objectives, must become a key priority.”

From the speech at the 11th meeting of the Energy Community Ministerial Council, Belgrade, 24 October 2013

transmission charging and Chapter III, Annex V and Article 72(3)-(4) of *Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control)*. At the session held in October 2013, the Ministerial Council adopted a Recommendation to implement *Directive 2012/27/EU of European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC* with a view to adopt a binding decision on the implementation in 2014.

In 2013, the work of a joint Energy Community Competition Network continued as well as close cooperation among competition authorities, including their cooperation with energy regulators. It was confirmed that the use of potential in competition law enforcement would give an additional impetus to market reforms and the fulfillment of obligations by the Contracting Parties.

The priorities of the Energy Community in 2014 include preparation of proposals for updating the Treaty, which would unite efforts of the Energy Community member states in the energy sector development. Furthermore, the aim is to improve the competitiveness of companies in the energy market and provide more effective mechanisms for interest protection, mutual assistance and give equal opportunity to use the European Union instruments to achieve common objectives.

Ukraine, as the presiding country of the Energy Community in 2014, presented priorities focusing on increasing European energy independence and security by functioning of the gas market in the reverse direction on the border between Ukraine and the EU and creation of the East European Gas Hub, developing the alternative transit routes for security supplies of energy resources, developing and adapting the legislation and attracting the investments to implement the PECEI projects.

Bosnia and Herzegovina and the Energy Community

By active participation in this process, Bosnia and Herzegovina confirms its commitment to the reform of the energy sector, liberalization of the energy market and harmonization of its policies with those of EU member states.

However, it is obvious that additional efforts should be made at different BIH levels to transpose and implement the Energy Community *acquis*. Deadlines for the fulfillment of numerous obligations of Bosnia and Herzegovina have already expired, while a relatively short period of time has left for the remaining obligations (please see Table 8). This is also indicated by dispute settlement cases initiated by the Energy Community Secretariat:

- Case ECS-1/10, initiated by an *Opening Letter* of 21 September 2010 concerning state aid. Although in February 2012, the Law on system of state aid in Bosnia and Herzegovina was adopted and the State Aid Council established at the end of the same year, its effective implementation was still missing. The Secretariat announced that the case would be closed upon the Council becoming fully operational.
- On 20 January 2011, the Secretariat sent *Opening Letters* to Albania, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro and Serbia in accordance with Cases ECS-1–6/11 for failure to adopt a common coordinated congestion management method and procedure for the allocation of capacity to the market. The transmission system operators of Albania, Bosnia and Herzegovina, Croatia, Macedonia, Greece, Montenegro, Romania, Slovenia, Kosovo* and Turkey on 13 June 2012 signed an agreement for establishing the Project Team Company of the South East Europe Coordinated Auction Office. Until this Office is operational, the cases remain open.
- Case ECS-8/11, initiated by an *Opening Letter* on 7 October 2011 for noncompliance of obligations by BIH concerning the adoption of relevant legislation in the gas sector. Having taken into account the reply of the BIH Council of Ministers to the *Opening Letter*, the Secretariat sent a *Reasoned Opinion* on 24 January 2013, and submitted the case to the Ministerial Council for decision by way of a *Reasoned Request* on 21 May 2013. Based on this *Request*, on 24 October 2013, the Ministerial Council of the Energy Community declared the existence of a breach in the gas sector and called upon Bosnia and Herzegovina to rectify the breach by adopting a relevant legislation by June 2014. In case of failure to do so, the launching of required proceedings was announced.
- On 11 February 2013, the Secretariat sent *Opening Letters* to Albania, Bosnia and Herzegovina, Macedonia, Serbia and Ukraine for failure to transpose and implement requirements concerning the reduction of emissions of SO₂ resulting from the combustion of heavy fuel oils and gas oils.

SERC Activities in the Energy Community Bodies

The work of the State Electricity Regulatory Commission in the Energy Community was carried out with the necessary cooperation of the Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, through support and contribution to the realization of different projects supporting the establishment of the Energy Community, and in particular, through proactive involvement in surveys which were planned and implemented by different groups with the wider thematic spectrum that includes energy regulators from the region and the European Union.

SERC activities in the Energy Community continue to focus on the Regulatory Board, in which Bosnia and Herzegovina and its interests are represented by the State Electricity Regulatory Commission. The formal establishment of the Regulatory Board of the Energy Community took place on 11 December 2006 in Athens. In 2013, the Regulatory Board held four meetings. Mr. Edin Zametica, M.Sc., Advisor to the Commission, contributes to the affirmation of the Regulatory Commission in the ECRB in particular in the capacity of the Chairman of the Customer Working Group since 2007.

The ECRB organizes a considerable part of its activities through several working groups, with the support of the relevant Energy Community Secretariat Section.

During 2013, the **Electricity Working Group (EWG)** focused on the process of establishing a common mechanism for the allocation of cross-border capacities, establishment of the balancing mechanism, the issue of market design and market opening, harmonization of licensing regimes in the region, regulatory investment incentives, market monitoring and renewable energy sources.

By establishing a few sub-groups in the operational organization of its work, EWG prepared several important documents, reports and benchmarking reports, among which of special importance are *A Recommendation on the Adoption of Regulation 543/2013 on Submission and Publication of Data in Electricity Markets*, *Recommendation on Common Position of the ECRB on the SEE CAO Auction Rules*, *Recommendation to the ECRB on Position on Network Code implementation*, *Draft Market Monitoring Guidelines*, and a quarterly 8th region progress report. The EWG made a significant contribution to the coordinated implementation of *the Regional Action Plan for Wholesale Market Opening in South East Europe*. This plan is a joint document of the PHLG, ECRB and ENTSO-E which appointed coordinators for monitoring the implementation process.

The EWG prepares overviews of the regulatory environment, identifies legal and financial obstacles and proposes solutions at the regional and national levels for the implementation and functioning of new mechanisms within the regional market of South East Europe. The area of activities of the Working Group requires of its members a wide range of skills, including technical, legal and financial issues.

The **Gas Working Group (GWG)** has been committed to regional gas market development, which is less developed than the electricity market. Only a few countries have developed their gas markets, while the others use gas within a limited scope or not at all. The lack of gas infrastructure, including interconnections among the Contracting Parties, remains an obstacle to the creation of regional market. In this context, in 2013 activities on the Energy Community Gas Ring concept and the Gas-to-Power Initiative





continued which ultimately would have a positive effect on gas consumption balancing in the region and also on electric power system balancing, which, according to some prospects, would operate with the increased influence of wind power plants in the forthcoming period. ECRB's document *Gas Transmission Balancing in the Energy Community* was published in March 2013.

The GWG focused on comparing experiences of countries with organized electricity markets and identifying shortcomings in member countries with the aim to better harmonize primary and secondary legislation pertaining to the creation of gas market. A particular emphasis was put on gas quality and activities conducted by the Agency for the Cooperation of Energy Regulators (ACER) and the European Network of Transmission System Operators for Gas (ENTSO-G) on preparing framework guidelines and EU network rules on interoperability, capacity allocation and gas balancing.

The Customer Working Group (CWG) is continuously committed to the development of customer protection mechanisms in the process of energy market liberalization contributing to a number of customer-related activities of the Energy Community, in particular to the protection of vulnerable customers. The CWG contributed significantly to preparation of *An Outline of the Social Strategy of the Energy Community*.

The ECRB approved several documents prepared by the Group: *Small Customers' Electricity Generation from Renewable Energy Sources – Rules and Practices in the Energy Community* approved at the beginning of the year, and *Analysis of Existing Grid Connection Rules and Their Customer-Friendliness*, approved in the middle of year. Analyzing relevant elements of distribution tariffs and end-user prices of energy, the CWG prepared *Status Review of Main Criteria for Allowed Revenue Determination for Transmission, Distribution and Regulated Supply of Electricity and Gas*, which was approved by the ECRB at the end of the year. In the middle of 2013, the ECRB, with full support of the CWG, organized a joint seminar with the Council of European Energy Regulators (CEER) and the Energy Regulators Regional Association (ERRA) aimed at customer education and raising their awareness of importance of energy market functioning.

In the forthcoming period, the Group plans to finalize an overview of practice regarding contracts signed by small customers and publish a status review. The Group will continue activities on customer protection and education. In this context, it is planned to support a public campaign aimed at full energy market opening as of 1 January 2015, and to organize a joint seminar with CEER. The ECRB's cooperation with the Council of European Energy Regulators will also be continued through participation in preparing *the 6th Benchmarking Report on Quality of Electricity Supply*. Furthermore, the work of the CWG will be focused on analyzing the functioning and development of retail electricity and gas markets.



4.2 Energy Regulators Regional Association – ERRA

The Energy Regulators Regional Association (ERRA) is an organization composed of independent energy regulatory bodies primarily from the Central European and Eurasian region. ERRA has 24 full and five associate members. In addition, seven affiliate members are engaged in ERRA activities including the National Association of Regulatory Utility Commissioners (NARUC) and regulatory authorities and associations from Africa and Asia (Figure 16).



The goals of ERRA are improvement of energy regulation in the member countries, facilitating the development of independent and stable energy regulators, improvement of cooperation among regulators, exchange of information, research and experience among the members, better access to information on world-wide experience on regulation of energy activities.

The State Electricity Regulatory Commission is a full ERRA member as of 19 May 2004. At the General Assembly meeting

Figure 16. ERRA membership



held in May 2010, the two entity regulatory commissions, FERK and RERS, became ERRA associate members.

SERC representatives actively participate in the work of the General Assembly and Investment Conference, as well as in the work of standing committees and working groups with particular emphasis on the Standing Licensing/Competition Committee, Legal Regulation Working Group and Standing Tariff/Pricing Committee, the latter being chaired by Mr. Saša Šćekić, Head of Licensing and Technical Affairs Department, who in this capacity contributes to the affirmation of the Regulatory Commission since 2010. The Strategic Planning Working Group which was created in 2012 to analyze the work of the Association and propose solutions to the improvement of its work and long-term sustainability, continued its activities recognizing the need for certain restructuring of institutional organization of ERRA's work.

A number of topics were elaborated in 2013 in particular authorization for new generation capacities, connection issues, incentive mechanisms for renewable energy sources, energy efficiency promotion models, benchmarking of distribution tariffs and connection charges, unbundling of distribution companies, unbundling of transmission activity, structure and models of wholesale markets, analysis of results of transforming market structures of vertically integrated systems into a fully liberalized market, regulatory aspect of retail market development, infrastructure development in the function of cross-border trading, transmission capacity allocation and congestion management, creation of regional markets, regulatory monitoring, legal framework and institutional models for district heating sector restructuring and regulation, cooperation of energy regulators and other national institutions, enforcement powers of regulators, dispute settlement and transparency and timeliness of regulatory action.

In addition to active participation in ERRA bodies, the State Electricity Regulatory Commission fulfills the role as a member of this Association by providing relevant information on the power sector and the applicable regulatory practice in Bosnia and Herzegovina.

4.3 Mediterranean Energy Regulators – MEDREG



The Mediterranean Energy Regulators (MEDREG) started in May 2006 as a voluntary working group to establish cooperation among Mediterranean Energy Regulators and became a permanent regional organization established in Rome in November 2007.

MEDREG is an Association that brings together energy regulators in order to promote a clear, stable and harmonized

regulatory framework through a continuous cooperation among the Northern, Southern and Eastern shores of the Mediterranean basin. It gathers regulatory authorities from Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Italy, Israel, Jordan, Libya, Malta, Montenegro, Morocco, the Palestinian Authority, Portugal, Slovenia, Spain, Tunisia and Turkey.

Its organization is structured around a biannual General Assembly, as well as around four permanent *Ad Hoc* Groups: (1) on Institutional Issues (chaired by Algeria), (2) on Electricity (Egypt), (3) on Gas (Turkey) and (4) on Environment, Renewable Energy Sources and Energy Efficiency (Spain). *Ad Hoc* Groups meet at least twice a year. In addition, the Task Force on Consumers Issues started its activities in 2012. The Secretariat seated in Milan as part of the MEDREG structure implements the General Assembly's strategy enhancing MEDREG's accountability and institutional cooperation in the Mediterranean energy sector. Moreover, MEDREG Secretariat strongly fosters information exchange among its members through a Communication Officers network that promotes the association's message in each member country.

The main objective of the Association is the promotion of clear, stable and harmonized legal and regulatory frameworks in the Mediterranean region with the aim to facilitate investments in energy infrastructures and support market integration. Toward this goal, MEDREG promotes a permanent exchange of know-how, data collection and diffusion of expertise through comprehensive studies, recommendation reports and specialized training sessions in the field of energy regulation.

MEDREG activities benefit from the active commitment of all Member Regulators, and have been supported since 2007 by the European Union and the Council of European Energy Regulators (CEER). In 2012, MEDREG was acknowledged by the Committee on Industry, Research and Energy (ITRE) of the European Parliament as the reference institution for energy regulation in the Mediterranean region, while the European Commission refers repeatedly to MEDREG as a key actor for energy cooperation in the Mediterranean region and a relevant stakeholder in the establishment of the Mediterranean Energy Community.

The representatives of SERC directly participate in the work of the General Assembly, while the contribution to the work of *Ad Hoc* Groups is provided by their participation in meetings via various communication tools and provision of required information and comments on draft documents. In the course of 2013, SERC staff provided the information on investments, energy billing, consumer education and information practices, gas, quality of supply and other useful benchmarking data.

*Mr. Michel Thiollière,
MEDREG President:*

“In fact, all energy stakeholders – whether they are producers, transmission operators, investors or financiers – want at the same time transparency in the exchanges, reliability and long-term visibility. MEDREG leads the implementation of these principles, and supports national regulatory authorities to attain their objectives.”

*From Presidential Message -
Foreword of Annual Report
2012*

Mr. Almir Imamović, Head of Tariff and Market Department, as Vice-President of the *Ad Hoc* Group for Electricity since November 2013, also contributes to the affirmation of the Regulatory Commission within MEDREG.

In 2013, the Mediterranean Energy Regulators presented their first Annual Report in 2012, an important part of which is dedicated to the Association's aim to become a resource center for Mediterranean energy stakeholders. MEDREG plans to foster its role as a regional point of reference to support stronger energy governance, investing on technical cooperation, data consolidation and publication, and scientific cooperation among members.

4.4 International Confederation of Energy Regulators – ICER



The International Confederation of Energy Regulators (ICER), established in October 2009, is a voluntary framework for cooperation between energy regulators from around the globe. ICER's aim is to improve public and policy-maker awareness and understanding of energy regulation and its role in addressing a wide spectrum of socio-economic, environmental and market issues.

Over 200 regulatory authorities on six continents are included in the ICER's membership through 12 regional regulatory associations (Figure 17) and participate in its activities. SERC is an ICER member through ERA and MEDREG.

Figure 17. Regional regulatory associations included in the ICER's membership



ICER's work is focused around four key areas: (i) reliability and security of supply, (ii) the role of regulators in responding to climate change, (iii) competitiveness and affordability and (iv) the independence, powers, responsibilities, best practices and training of regulators. During the 2012-2015 period, ICER's work will be organized through the following virtual working groups: VWG1 – the Virtual Working Group on the Opening and Integration of Regional Markets, VWG2 – Virtual Working Group on Technological Change, VWG3 – Virtual Working Group on Consumers and VWG4 – Virtual Working Group on Education and Best Practices. In this way, ICER continues its efforts to build up solid links between regional regulatory associations around the world.

The present results of this global cooperation among energy regulators are presented in four reports, including international case studies, on: (1) guaranteeing reliability and security of supply, (2) renewables and distributed generation, (3) smart metering, and (4) competitiveness and affordability.

In October 2013, ICER launched its *Women in Energy* initiative. The goal of this global initiative of energy regulators is to help the advancement of women in energy, through practical tools such as women networking events, a pilot e-mentoring program and a collaborative network for the benefit of women.

SERC actively follows ICER's activities and provides support in different ways. In 2013, SERC staff provided data for the ICER survey on consumer protection initiated by VWG3. The survey concerns regulatory approaches to consumer protection in different jurisdictions and enables sharing of practices in this field.

In 2013, ICER's Virtual Working Group on Regulatory Best Practices launched the ICER Chronicle as a means to further promote ICER goals of enhanced exchange of regulatory research and expertise. Mr. Edin Zametica, M.Sc., Advisor to the Commission, contributes to the quality of this professional magazine as a member of the Editorial Board.

In May 2012, the International Confederation of Energy Regulators (ICER) and the International Energy Regulation Network (IERN) – a web platform established in 2003 by the II World Forum on Energy Regulation – merged with into a single organization under the ICER umbrella. IERN aimed at facilitating information exchange on electricity and natural gas market regulation, to the benefit of regulators and also of other interested users. Now IERN and its database are part of the ICER wider framework.

5. AUDITING REPORT

SERC provides funding for its operation and realization of activities pursuant to the Law on Transmission of Electric Power, Regulator and System Operator of BIH. The basic revenue of SERC is the regulatory fee paid by holders of licenses for performance of the activity of electricity transmission, independent system operator, distribution and supply of non-eligible customers and international electricity trading. The regulatory fee is determined in a manner so as to cover SERC's costs, while the obligation to pay the regulatory fee in the forthcoming period is reduced by the estimated difference in revenues over expenditures. In this manner, all realized revenues are earmarked exclusively for covering basic costs planned in detail.

SERC financial dealings cover mostly the following areas:

- incurrence and settlement of financial obligations for the needs as defined in the approved Financial Plan,
- short-term planning and cash flow management,
- monitoring of the Financial Plan realization in the current year,
- an analysis and estimate of future cash flows as the basis for development of a new financial plan,
- preparation of the financial plan for the following year,
- internal financial reporting as the basis for adoption of the relevant business decisions,
- financial reporting to external bodies, authorized institutions and the public.

The final result of all aforementioned activities and adopted decisions are financial reports presenting business results at the end of a business year. Pursuant to the obligations as defined in the Law based on which SERC was established, SERC is obligated to enable auditing of its financial reports every year in order to have an independent and impartial verification of the stated business results as well as to check the compliance of these procedures with the applicable regulations.

Based on a published public invitation for auditing services, in 2013 the auditing of SERC financial reports for the previous year was performed by the Auditing, Accounting and Consulting Company "REVIFORM" d.o.o. Sarajevo.

In addition to determining the objectivity of the financial reports as a whole, the performed audit included simultaneous evaluation of accounting policies applied and relevant estimates of the SERC management.

"In our opinion, the financial reports show objectively the financial standing of the State Electricity Regulatory Commission on 31 December 2012 as well as its business results and changes in cash flows for the year which ended at that point, in accordance with the International Financial Reporting Standards."
(*"REVIFORM"*,
28 March 2013)

In the opinion of the independent auditor, the presentation of financial reports, recognizing and measuring of transactions and business events, objectively and realistically present the state of assets, liabilities, capital and financial results of performance.

With the mentioned opinion, SERC maintained the highest audit opinion both for compliance of its financial reports with the international accounting standards, legal regulations, principles and policies as well as the stated business results which were audited in previous periods also by the Office for Auditing of the Institutions of Bosnia and Herzegovina.

Permanent improvement of the financial management and internal control system was continued along these lines, enabling the well-organized and efficient work with the simultaneous prevention or identification of possible mistakes in order to protect the property from loss caused by negligence or poor management. This is the reason why every recommendation by auditors enhancing business performance and increasing success and responsibility is applied unreservedly.

Lead by the commitment to and principles of objectivity and transparency in its work, with the aim to provide information on its financial standing and business results to the interested persons and the wider public, SERC publishes revised annual financial reports every year. Audited financial reports for 2012 were published in the “Official Gazette of BIH”, Number 30/13 and on the SERC internet site.



6. MAIN ACTIVITIES IN 2014

The State Electricity Regulatory Commission will continue its activities on the creation of conditions for free trade and unhindered electricity supply in accordance with the previously defined quality standard to the benefit of the citizens of Bosnia and Herzegovina, and in compliance with international agreements, national laws, the relevant European regulations and directives as well as other internal electricity market rules.

In 2014, SERC will continue to cooperate with the Parliamentary Assembly of Bosnia and Herzegovina (PA BIH), in particular with the Committee on Traffic and Communications of the House of Representatives of PA BIH and the Committee on Foreign and Trade Policy, Customs, Traffic and Communications of the House of Peoples of PA BIH. In addition, the focus of interest will primarily remain on the information exchange and harmonization of key regulatory activities with the Ministry of Foreign Trade and Economic Relation of BIH, which is competent for policy creation in accordance with the Law on Transmission of Electric Power, Regulator and System Operator of Bosnia and Herzegovina.

All existing modalities of mutual follow up and harmonization of activities will be used also in 2014 with the Regulatory Commission for Energy in the Federation of BIH and the Regulatory Commission for Energy of the Republika Srpska as well as with other regulatory bodies established at national level, primarily the Council of Competition of BIH.

In order to meet the need of different decision-making levels for quality and reliable statistical data in the energy field, SERC will remain a reference source and an active generator of these data. To this end, it will continue to cooperate with the BIH Agency for Statistics.

Furthermore, SERC will follow activities and trends in the whole energy sector and directly participate in all relevant events.

Through its activities SERC will be focused on:

- Setting of tariffs in line with SERC competencies,
- Issuance of licenses,
- Regulatory monitoring of licensed entities,
- Creation of new regulatory rules and an analysis of the previously adopted regulatory rules and the existing practice with a review and revision of SERC rules,
- Development of ancillary service models,
- Fostering a higher degree of integration of the national electricity market with a particular emphasis on the efficient wholesale and retail market opening,

- Capacity building in terms of the fulfillment of international obligations with regard to regulatory reporting,
- Social aspect in the field of regulatory practice,
- Monitoring the implementation of the Inter-TSO Compensation Mechanism (ITC mechanism) and operation of the Project Team Company of the South East Europe Coordinated Auction Office (SEE CAO),
- Approving and monitoring rules developed by the “Independent System Operator in Bosnia and Herzegovina,” “Elektroprijenos/Elektroprenos BIH” and “Komunalno Brčko,”
- Approving *the Indicative Generation Development Plan for the Period 2015-2024* and approving *the Long-Term Transmission Network Development Plan* for a ten-year period as well as *An Investment Plan of Elektroprijenos/Elektroprenos BIH*,
- Sharing information on regulatory practice with the regulated entities and the public,
- Performing other tasks entrusted to SERC.

While conducting its activities SERC will take into account the protection of customers and give its full contribution to the creation of best applicable solutions in the forthcoming period, in accordance with competences vested in SERC under law.

Taking into account the fact that the new rules of the European Union on the internal energy market (‘Third Package’) have become mandatory for Bosnia and Herzegovina under the Treaty Establishing the Energy Community, with the deadline for the transposition into the national legislation and the practical implementation by 1 January 2015, in line with its competences and optimal coordination with other key stakeholders SERC will contribute to the creation of legal framework.

It is in the interest of all key stakeholders tasked with the implementation of the power sector reform in Bosnia and Herzegovina to harmonize secondary legislation and to have efficient coordination with the bodies that participated in its drafting and development. The aim is to create a clear and stable legal framework based on the European directives and rules on the internal energy market.

In this context, SERC is planning to actively participate in the development of an EU-*acquis*-compliant legislative framework in the field of electricity in Bosnia and Herzegovina, and removal of shortcomings in the power sector referred to in the *BIH 2013 Progress Report of the European Commission*.

SERC will also participate in supporting and implementing regional priorities and Energy Community projects but also in

the priorities identified for the BIH power sector within the Energy Community, that is, those referred to in the *Report on the Implementation of the Acquis under the Treaty Establishing the Energy Community*.

SERC will also focus on the activities of international bodies pertaining to the regulation of the electricity market, primarily those in whose activities SERC participates:

- ECRB – the Energy Community Regulatory Board (including the Electricity Working Group and Gas Working Group, Customers and Retail Market Working Group),
- ERRA – the Energy Regulators Regional Association (including the Standing Licensing/Competition Committee, Standing Tariff/Pricing Committee, Legal Regulation Working Group and Customer and Retail Markets Working Group the formation of which is planned for 2014),
- MEDREG – the Mediterranean Energy Regulators (including *Ad Hoc* Groups on institutional issues, electricity, gas and environment, renewable energy sources and energy efficiency as well as Task Force on Consumers Issues),
- ICER – International Confederation of Energy Regulators.

Furthermore, SERC will continue to follow up the work of the Council of European Energy Regulators (CEER) and Agency for the Cooperation of Energy Regulators (ACER).

In 2014, an additional impetus to international cooperation will be provided by a new project of the *United States Agency for International Development* (USAID) facilitating partnership of BIH energy regulators with the National Association of Regulatory Utility Commissioners (NARUC) and several regulatory commissions thereof, with the Public Utilities Commission of Ohio (PUCO) being the leading commission. The signing of a Memorandum of Understanding was announced for January 2014.



Ohio

*Additional information on
the operation and
procedures conducted by the
State Electricity Regulatory
Commission may be obtained
on the internet at
www.derk.ba, or by phone on
+387 35 302060 and 302070,
fax +387 35 302077,
e-mail info@derk.ba
or at the SERC seat in Tuzla,
M. Jovanovića Street 4/II.*

ATTACHMENT A: Basic Data on the Power System of Bosnia and Herzegovina

(Source: ISO BIH, the Company for Transmission of Electric Power of BIH and public power utilities)

Basic data on installed capacity of generation units

Total installed capacity of generation units in Bosnia and Herzegovina amounts to 3,978.86 MW, with 2,048 MW and 1,765 MW installed in major hydro power plants and thermal power plants respectively. Installed capacity of small hydro, wind and solar power plants amounts to 73.63 MW while installed capacity of industrial powers plants in BIH is 91.23 MW.

Hydro power plants	Capacity of power unit (MW)	Total installed capacity (MW)
Trebinje I	2×54+1×63	171
Trebinje II	8	8
Dubrovnik (BIH+CRO)	2×108	216
Čapljina	2×210	420
Rama	2×80	160
Jablanica	6×30	180
Grabovica	2×57	114
Salakovac	3×70	210
Mostar	3×24	72
Mostarsko blato	2×30	60
Peć-Mlini	2×15	30
Jajce I	2×30	60
Jajce II	3×10	30
Bočac	2×55	110
Višegrad	3×105	315

Thermal power plants	Installed capacity (MW)	Available capacity (MW)
TUZLA	715	635
G3	100	85
G4	200	182
G5	200	180
G6	215	188
KAKANJ	450	398
G5	110	100
G6	110	90
G7	230	208
GACKO	300	276
UGLJEVIK	300	279

Basic data on the transmission system

transmission lines

Nominal voltage of transmission lines	Length (km)
400 kV	864.73
220 kV	1,524.80
110 kV	3,888.63
110 kV – cable line	31.78

interconnectors

Nominal voltage of transmission lines	Number of interconnections
400 kV	4
220 kV	10
110 kV	22
<i>Total</i>	<i>36</i>

transmission sub-stations

Type of sub-station	Number of sub-stations	Installed capacity (MVA)
TS 400/x kV	9	6,090.5
TS 220/x kV	8	1,423.0
TS 110/x kV	128	4,855.0

transformers

Transmission ratio of transformers	Number of transformers	Installed capacity (MVA)
TR 400/x kV	14	4,900.0
TR 220/x kV	14	2,100.0
TR 110/x kV	222	5,376.5

ATTACHMENT B: Basic Power Indicators of Bosnia and Herzegovina

(GWh)

Year 2013	EP BIH	ERS	EP HZHB	Komunalno Brčko	BIH
Generation in hydro power plants	1,854.43	2,920.91	2,348.28		7,123.62
Generation in thermal power plants	5,549.53	3,390.12			8,939.65
Generation in small and industrial PPs	150.59	73.98	14.71		239.28
Generation	7,554.55	6,385.01	2,362.99		16,302.55
Distribution consumption	4,401.52	3,567.50	1,343.83	258.14	9,570.99
Transmission losses					343.10
Large customers	448.20	126.21	2,048.14*		2,622.55
PPs self-consumption		13.26	8.74		22.00
Consumption	4,849.72	3,706.97	3,400.71	258.14	12,558.64
*Including the amount of 884.94 GWh, which the “Aluminij” Company purchased as an eligible customer					
Year 2012	EP BIH	ERS	EP HZHB	Komunalno Brčko	BIH
Generation in hydro power plants	1,086.63	1,832.77	1,229.30		4,148.70
Generation in thermal power plants	5,367.80	3,251.70			8,619.50
Generation in small and industrial PPs	115.40	43.04	7.89		166.33
Generation	6,569.83	5,127.51	1,237.19		12,934.54
Distribution consumption	4,340.28	3,551.14	1,379.43	262.54	9,533.39
Transmission losses					308.14
Large customers	446.23	119.18	2,136.41*		2,701.83
PPs self-consumption and pumping		13.62	67.26		80.88
Consumption	4,786.52	3,683.94	3,583.10	262.54	12,624.24
*Including the amount of 910.54 GWh, which the “Aluminij” Company purchased as an eligible customer					
Year 2011	EP BIH	ERS	EP HZHB	Komunalno Brčko	BIH
Generation in hydro power plants	1,113.63	1,817.09	1,395.40		4,326.12
Generation in thermal power plants	6,138.01	3,449.76			9,587.77
Generation in small and industrial PPs	100.82	28.61	6.60		136.04
Generation	7,352.47	5,295.46	1,402.00		14,049.93
Distribution consumption	4,284.17	3,556.16	1,363.04	271.71	9,475.08
Transmission losses					324.17
Large customers	417.17	124.08	2,216.62*		2,757.87
PPs self-consumption		14.23	21.22		35.45
Consumption	4,701.34	3,694.47	3,600.88	271.71	12,592.57
* Including the amount of 876.00 GWh, which the “Aluminij” Company purchased as an eligible customer					
Year 2010	EP BIH	ERS	EP HZHB	Komunalno Brčko	BIH
Generation in hydro power plants	2,094.61	3,246.91	2,604.67		7,946.20
Generation in thermal power plants	5,012.79	2,856.00			7,868.80
Generation in small and industrial PPs	182.77	62.11	8.54		253.41
Generation	7,290.17	6,165.02	2,613.21		16,068.40
Distribution consumption	4,232.92	3,522.19	1,367.75	277.35	9,400.21
Transmission losses					337.95
Large customers	371.43	110.26	2,030.80*		2,512.49
PPs self-consumption and pumping		12.96	2.21		15.17
Consumption	4,604.35	3,645.41	3,400.76	277.35	12,265.82
* Including the amount of 1068.48 GWh, which the “Aluminij” Company and “BSI” purchased as eligible customers					
Year 2009	EP BIH	ERS	EP HZHB	Komunalno Brčko	BIH
Generation in hydro power plants	1,631.23	2,577.36	1,939.82		6,148.41
Generation in thermal power plants	5,233.60	2,993.02			8,226.63
Generation in small and industrial PPs	128.39	52.85	5.24		186.47
Generation	6,993.22	5,623.24	1,945.06		14,561.52
Distribution consumption	4,132.46	3,403.46	1,349.97	272.22	9,158.11
Transmission losses					306.46
Large customers	367.30	120.90	1,630.16*		2,118.37
PPs self-consumption		14.34			14.34
Consumption	4,499.76	3,538.70	2,980.13	272.22	11,597.28
* Including the amount of 876.00 GWh, which the “Aluminij” Company purchased as an eligible customer					

ATTACHMENT C: Map of the Power System of Bosnia and Herzegovina with Operational Areas of “Elektroprijenos/Elektroprenos BIH” (the Company for Transmission of Electric Power of BIH) and Distribution Areas of Public Power Utilities (December 2013)

