



BOSNIA AND HERZEGOVINA  
STATE ELECTRICITY  
REGULATORY COMMISSION

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Bosnia and Herzegovina

**STATE ELECTRICITY REGULATORY COMMISSION**

**REPORT ON ACTIVITIES  
OF THE STATE ELECTRICITY REGULATORY COMMISSION  
IN 2016**

Tuzla, December 2016



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*Report on Activities of the State Electricity Regulatory Commission follows the reporting requirements of regulatory authorities in the European Union and Energy Community requirements, with some adaptations presenting the characteristics of the regulatory framework in Bosnia and Herzegovina.*

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## 1. INTRODUCTION

The sustainable energy sector development is an imperative task of both policy makers and regulators and accountable companies and customers at global, regional and local level. The decisions passed at national and European level are interdependent defining how to meet energy needs, at what economic price and with what environmental consequences. The changes affect the energy generation, transportation and consumption patterns and have an impact on the present and future generations. These challenges become at the same time a new potential for the sector – some new flexible relationships are made possible among service providers and users, suppliers and customers, which offer more efficient market functioning modalities.

In 2016, the power sector of Bosnia and Herzegovina (BIH) was marked by successful balancing market operation, operability of the European energy market principles and activities aimed at security of supply, competition and sustainability. The past year may be characterised as the first business year under the conditions of the open electricity market during which the whole sector proved to be and remained a stable part of the BIH economy.

The electricity market in 2016 was characterised by trends of increased trading and decreased prices both in the wholesale and retail markets. These show the full effect of market liberalisation and results of regulatory activities.

While holding the Energy Community Presidency in Office during 2016, Bosnia and Herzegovina made some important steps towards the European Union. The answers to *the Questionnaire of the European Commission for the preparation of the Opinion on the BIH Application for the membership of the EU*, which are being prepared for Chapters: *Energy, Trans-European Networks and Consumer and Health Protection* will enable detailed identification of further activities necessary to implement the *acquis* of the European Union on the internal energy market.

During 2016, the State Electricity Regulatory Commission (SERC) continued its regulatory mission in the sector creating conditions for unhindered trade in electricity and reliable electricity supply with continuous monitoring of the licensed entities. Jointly with other regulators in the region, SERC participated in the implementation of concrete measures for regional electricity market development and its integration into the EU market.

The BIH power system operated steadily throughout 2016 enabling the functional operation for all system users in line with the defined quality standards. A new 110 kilovolt (kV) transmission line Visoko – Fojnica, as well as new substations TS 110/x kV Bužim, Fojnica, Laktaši 2, and Mostar 9 (Buna) with new or refurbished connection transmission lines were

*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 the Brčko District of Bosnia and Herzegovina.*

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

connected to the system. Thermal Power Plant Stanari with installed capacity of 300 megawatts (MW) started its commercial operation.

A record in electricity generation amounting to 16,509 gigawatt hours (GWh) was reached in the past year, which is 1,101 GWh, or 14.6 % more than generated in 2015. The moderately unfavourable year in hydrological terms, in which inflows were lower than a multiannual average, resulted in 5,469 GWh generated by hydropower plants, which is a 0.8 % increase. Generation by thermal power plants reached a record of 10,608 GWh, which is 1,896 GWh, or 21.8 % more than in the previous year. Small-scale renewable generation (small hydropower plants, wind and solar power plants and those using biofuels) also recorded a significant increase of 62.3 % amounting to 400.8 GWh. Industrial power plants produced 30.9 GWh.

Total electricity consumption amounted to 12,865 GWh, thus reducing the upward annual trend in the previous year from 3.2 % to 2.1 %. Nevertheless, with this total consumption also reached its historical maximum. Consumption of customers connected to the transmission system increased by 4.1 %, while consumption of customers connected to the distribution network increased by 1.4 % compared to the previous year. The highest consumption increase (6.5 %) was registered among customers connected to the 10 kV network.

The maximum load of the power system in 2016 amounting to 2,098 MW was reported on 31 December 2016 at the 18<sup>th</sup> hour, which is less than the historic maximum of 2,207 MW reported on the same day and hour in 2014.

Total electricity in the transmission network amounted to 19,070.1 GWh, which is 6.8 % higher than in 2015. Transmission losses amounted to 333.3 GWh, or 1.75 % of total energy in the transmission network. The trend of reducing distribution losses continued and they amounted to 1,024.8 GWh or 10.26 % in relation to gross distribution consumption, which was at the lowest level in the history of the BIH power sector.

In 2016, 5,287 GWh was exported, which is, 53.5 %, or 1,842 GWh more than in the previous year, which is mostly the consequence of increased electricity generation. Imports amounted to 1,525 GWh, with a 16.6 % increase compared to the previous year. Registered electricity transit through the BIH transmission network amounted to 2,871 GWh, which is an increase of 432 GWh or 17.7 % in comparison to 2015.

## 2. COMPOSITION AND ORGANISATION OF WORK OF THE STATE REGULATORY COMMISSION



*The State Electricity Regulatory Commission 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 by appointment of the Commissioners.*

Commissioners from the Federation of Bosnia and Herzegovina are:

- Mr. Suad Zeljković, with a five-year term (from 11 June 2016), and
- Mr. Nikola Pejić, with his second five-year term (from 11 June 2016).

The Commissioner from the Republika Srpska is

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

Before Mr. Zeljković was elected Commissioner, this function was performed by Mr. Mirsad Salkić. It is obvious that the first five-year term of one Commissioner from Republika Srpska expired. Having in mind that the *Law on Transmission of Electric Power, Regulator and System Operator of BiH* 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. Milorad Tuševljak performs this function until the completion of the procedure for (re)appointment of the Commissioner from Republika Srpska.<sup>1</sup>

Since the establishment of the State Electricity Regulatory Commission, the Commissioners rotate in the position of the Chairman equally on an annual basis. Until 30 June 2016, this function was performed by Mr. Milorad Tuševljak. Mr. Suad Zeljković is the current Chairman of the Commission until 30 June 2017.

In line with the Law, SERC was established as an independent institution of Bosnia and Herzegovina, with the obligation to act in accordance with the principles of objectivity, transparency and equality. These principles have been incorporated in all SERC legal documents and implemented in all procedures. This method of operation has been adjusted to the maximum extent possible to the *Policy Guidelines of the Energy Community Secretariat on the Independence of National Regulatory Authorities* from January 2015. Incorporated in rules and continuously implemented in practice, the independence of the State Electricity Regulatory Commission has been shown and demonstrated in all areas including political, legal, social and financial dimension.

*“SERC has shown active engagement in performing its duties, stretching its limited competences to the extent possible.”*

*from Annual Implementation Report of the Energy Community Secretariat, 1 September 2016*

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<sup>1</sup> At the time of the creation of this report, the procedure for appointment of the Commissioner from the Republika Srpska is still in process before the government of this Entity. After the Government’s proposal is confirmed by the National Assembly of Republika Srpska, the nomination shall be submitted to the Council of Ministers of Bosnia and Herzegovina, which shall propose the appointment to the Parliamentary Assembly of Bosnia and Herzegovina.

The Third EU Energy Package highlights the link between the regulatory independence and reform implementation and introduces expanded powers and enhances regulatory independence, in particular with regard to market monitoring and imposing sanctions for anti-competitive behaviour.

The work of SERC is organised 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.

SERC follows the requirements of regulatory practice by using different ways to improve its knowledge and experience, that is, 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 has become dominant in practice of the Commission. In addition, systematic training aimed at continuous harmonisation of knowledge, skills and practice with needs and expectations of the institution is provided by specialised workshops of the Energy Community Secretariat, training programs of the Energy Regulators Regional Association and the Florence School of Regulation, and seminars of the Directorate for European Integration aimed at the process of accession and integration of BiH into the European Union.

A particular contribution to professional training in 2016 was provided by the *United States Agency for International Development* (USAID) through its *Energy Investment Activity* (EIA) Project and *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) GmbH (German Agency for International Cooperation) through the project *Promoting Renewable Energy in Bosnia and Herzegovina*, within which several educational workshops were organised covering different thematic contents.

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

In addition to professional training of its employees, the State Electricity Regulatory Commission also informed about and



*The Report on Activities of the State Electricity Regulatory Commission in 2015 was considered at the sessions of both Houses of the Parliamentary Assembly of Bosnia and Herzegovina. The report was adopted*

- *at the 30<sup>th</sup> session of the House of Representatives, held on 14 May 2016, and*
- *at the 20<sup>th</sup> session of the House of Peoples, held on 16 June 2016.*

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, with special training organised for public media representatives.

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, organises 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 familiarisation of the two institutions.

In the reporting period, the functionally obsolete and written-off computer equipment was replaced by the new one, in compliance with prescribed standards and guidelines of the BIH Council of Ministers for procurement of computer equipment and software. In this process, energy consumption characteristics of equipment and good practices were taken into account as recommended by the Office for Auditing of the Institutions of Bosnia and Herzegovina in their performance audit reports.



### 3. KEY ACTIVITIES

In 2016, the State Electricity Regulatory Commission held 19 regular sessions and one extraordinary session, 35 internal meetings and organised ten public hearings, out of which six had general, one technical and three had formal character.

In the reporting period, in a transparent manner and by holding relevant public hearings in which interested members of the public were allowed to give their comment along with power sector stakeholders, the Commission conducted the activities with regard to adoption and approval of a range of documents, tariff setting, granting of licenses, and carried out other activities of which the most important ones are grouped in the clusters listed below.

Transparency towards the public through consultation and communication with all interested professionals, as well as the general 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 regulatory authorities in the power sector of Bosnia and Herzegovina.

#### 3.1 SERC Rules and Documents

##### *Licensing Rules*

By the Licensing Rule the State Electricity Regulatory Commission defined the procedure and criteria for granting of licences, including the procedures for filing and review of applications, and granting, suspension and revocation of licences. The initial Rule regulating this matter, which was adopted in April 2005, was replaced by the new *Licensing Rule* in October 2012. During 2015, after the expiry of deadlines as defined by the *Decision on scope, conditions and time schedule of electricity market opening in Bosnia and Herzegovina* from 2006, adoption of a number of rules on electricity supply under the competence of the national and entity regulators, and following adoption and approval of the new *Market Rules* in 2015, activities were conducted on adaptation of the *Licensing Rule* to the concepts, terms and solutions present in these as well as other rules and the changes which occurred in the meantime in the electricity market in BIH. Those activities resulted in adoption of *Rules on amendments to the Licensing Rule* in December 2015.

As a large number of novelties had been introduced by this document, adhering to the principle of transparency with the intention to make the use and application of the rules easier, the State Electricity Regulatory Commission developed and published a consolidated version of the Licensing Rule in 2016.

*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 organisational 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 organises general public hearings. With a view to resolving technical issues during the proceedings and processing of procedural or essential issues technical public hearings are held. With a view to establishing decisive facts, based on which SERC may resolve certain applications or disputes, formal public hearings are held.*

*Regular sessions and all public hearings are open to the public.*

The current Licensing Rule further simplified and expedited the procedure for granting international electricity trading licences, thus significantly reducing the number of documents circulating both internally within SERC and in communication with applicants and interested third parties. This is the reason why in February 2016 a Decision on format and content of licence application forms was adopted. At the same time, taking into consideration abolishment of international electricity trading licences for self-consumption, the Decision on the amount of one-off fee for carrying out the procedure was amended in accordance with the Licensing Rule.

### ***Rules of Ancillary and System Services and Balancing of the BIH Power System***

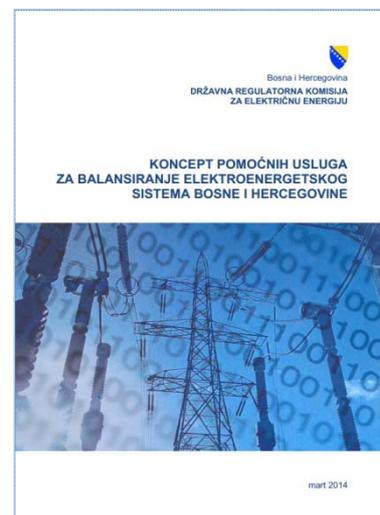
During the past several years, aware of the importance of ancillary services and balancing of the power system, the State Electricity Regulatory Commission in cooperation with the Independent System Operator (ISO) and other power utilities conducted a range of activities which resulted in a new method of providing ancillary services and balancing of the BIH power system.

*A Concept of Ancillary Services for the balancing of the power system of Bosnia and Herzegovina*, as defined in March 2014, specified the basic solutions, illustrated a considerable number of procedures which had to be developed and paved the way for further trends in completion of the existing regulatory framework for the provision of ancillary services for balancing of the power system.

A number of activities of SERC and the ISO BIH, which were described in detail in the previous Report on Activities of the Regulatory Commission, resulted in a set of rules and decisions whereby on 1 January 2016 the market principles had been introduced in the formerly fully regulated method of providing ancillary services and balancing the BIH power system. In this manner, the functionality of open wholesale and retail electricity markets was enhanced in Bosnia and Herzegovina (please see Section 3.8).

In 2016, the balancing electricity market in Bosnia and Herzegovina operated successfully and it sets an example of a successful model in South-East Europe. However, taking into consideration the early phase of implementation and dynamic nature of this market, throughout the year SERC closely monitored its operation and modified the documents regulating its operation as appropriate.

After five months of implementing the new BIH power system balancing model, there arose the need to adapt the tariff for system service taking into account the scope of costs for purchase of ancillary services during this period and an estimate for the remaining period. The costs of purchasing ancillary services of secondary and tertiary reserve and energy for covering of losses in the transmission system were lower than the projected ones as well as the cost of compensation for unintended deviations of the BIH regulation



area, which cannot be reliably projected in practice. The consequence of this was an increase in the account balance for all services which was the reason for SERC to reduce the tariff for system service in June 2016 from 2.5636 €/MWh to 1.9230 €/MWh with the implementation starting on 1 July 2016. In this manner, a ratio of incomes based on the tariff for system service and expenditures incurred due purchase of ancillary services was balanced.

In June 2016, a *Decision on amendment to the Decision on determination of coefficients and price caps for ancillary services* was passed with a view to further improving the balancing market operation and eliminating the observed imbalances as far as certain financial values and their tendency in practical implementation are concerned. The most relevant segment of the amendment pertains to an increase in the price cap for the provision of secondary control capacity from 11.5 €/kW on a monthly basis to 15.3 €/kW on a monthly basis, all with the aim of objectively valorising this service and encouraging providers to increase provision thereof.

In November 2016, SERC initiated activities on amendments to the Tariff pricing methodology for services of electricity transmission, operation of independent system operator and ancillary services to improve the provision of tertiary reserve. A general public hearing on a draft document was held at the end of November, while in the middle of December 2016 a *Decision on amendments to the Tariff pricing methodology for services of electricity transmission, operation of independent system operator and ancillary services* was adopted. In addition to the innovated standardisation of tertiary control, the ISO BIH was enabled to independently make decisions on procurement of missing volumes of ancillary services in the market, without a separate SERC decision which was previously required, which in practice expedited decision-making and additionally improved the balancing market operation.

In order to implement the Decision on amendments to the Methodology, it was necessary to define a coefficient of charge for non-provided tertiary control capacity; therefore, a *Decision on amendment to the Decision on determination of coefficients and price caps for ancillary services* was adopted in the middle of December 2016.

During 2016, on a regular basis SERC passed decisions on provision of missing volumes of ancillary services for the upcoming calendar month. These decisions pertained to those ancillary services the necessary volumes of which could not be provided through annual and monthly public procurements, thus requiring to determine providers in a regulated manner. With the successful balancing market development, the offer of services increased significantly and the needs for all ancillary services in 2017 had already been met through annual bids organised by the ISO BIH at the end of 2016.

## ***Connection Rules***

*Connection Rules* prescribe the procedures for connection of new generators' or customers' facilities to the transmission network at 400, 220 and 110 kV voltage level, connection of facilities to 35, 20, 10 and 6 kV medium voltage level at 110/x kV substations of Elektroprenos BIH (the Company for Transmission of Electric Power in BIH), as well as connection of the existing facilities in case of an increase in granted capacity, upgrade or reconstruction of facilities. The Rules regulate the procedures of issuance of conditions for connection of the user, development of surveys and issuance of connection permits, define the grounds of contractual relationships between the transmission network users and regulate connection fees to be paid by the users. The applicable Rules, adopted in 2008, were amended in 2010 and 2012.

Instigated by the changes in the sector, SERC launched the preparation of new connection rules. Using a working text prepared by Elektroprenos BIH, in April 2016 SERC defined a Draft of new connection rules which essentially keep the procedures, concepts and solutions as defined by the Connection Rules of 2008 but also harmonise them with the practical needs, or supplement them following the initiatives launched in order to give more room for the more efficient implementation of power infrastructure projects to which this rule is of utmost importance.

Representatives of several entities which may be affected by the new rules participated in a general public hearing held in May 2016, during which they assisted through a two-way process in preparation of an innovated text of the Draft Rules. The hearing conducted indicated the necessity to obtain expert opinion of some technical matters, which was the reason why a technical public hearing was organised subsequently. This approach took into consideration the fact of parallel process for adoption of a new Grid Code, acknowledging the benefit of synchronising the activities between the developers of both documents in order to reach mutually compatible standardised solutions.

The technical public hearing was held in the middle of November 2016 to which the relevant experts of the competent ministries, regulatory commissions, Elektroprenos BIH, ISO BIH, distribution system operators and competent authorities in the field of renewables had been invited. The activities on finalising a Proposal of Connection Rules, the adoption of which is expected next year, were ongoing at the time of the creation of this Report.

### **3.2 Documents Approved by SERC**

#### ***Indicative Generation Development Plan for Period 2017–2026***

An *Indicative Generation Development Plan* is developed for a ten-year period every year. The goal of the plan is to inform the



current and future users of the needs and existing projects for construction of new generation capacities. At the same time, this plan is used as one of the bases for the development of a *Long-Term Transmission Network Development Plan in Bosnia and Herzegovina*, which is also developed every year covering a ten-year period including the issue of new cross-border lines.

The main objective of the Indicative Generation Development Plan is to analyse the balance of capacity and energy in the transmission network for the following ten years. The development of this document is also in the function of fulfilling obligations towards ENTSO-E.

The Independent System Operator in BiH, as all other system operators within ENTSO-E, is obligated to provide its contribution to the development of the European Ten-Year Network Development Plan (TYNDP), which is prepared on a biannual basis pursuant to Regulation (EC) No 714/2009 on conditions for access to the network for cross-border exchanges in electricity.<sup>2</sup> In this context, the ISO BiH is obligated to submit BiH power system development plans, which are based on consumption and generation including new sources, and planned reinforcements of the internal transmission network and interconnections. These activities presume and imply full coordination at the regional level with the analysis of potential congestion in the internal network and cross-border lines.

An electricity consumption forecast for the period from 2017 to 2026 was developed using the experience gained in preparation of this type of plans, taking into consideration the existing trends as well as assessments of various international and national institutions. Furthermore, the trend in gross domestic product was an important factor while forecasting electricity consumption, for which data and projections of international financial institutions were used.

For the development of the *Indicative Generation Development Plan for the Period 2017 – 2026*, qualitative input data were provided, although some transmission system users do not provide data in accordance with the Grid Code provisions, primarily in the field of electricity. Furthermore, it is evident that some investors make unrealistic projections concerning the year when a facility would be put into operation, in which case the ISO BiH provides its own projection. In terms of providing information on the dynamics of connecting new generation facilities to the transmission network, the need for the more significant contribution by the relevant entity ministries and regulatory commissions was recognised.

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<sup>2</sup> TYNDP 2016, that is, the latest *European Ten-Year Transmission Network Development Plan* was revised following public consultation and published on 20 December 2016. ACER's opinion is expected in spring 2017.

A public hearing on the document, held in April 2015, focused on generation forecasts, new generation facilities and balances of capacity and energy in the transmission network. The balances of capacity and energy for the following ten years indicated the necessity to construct some new generation capacities. Furthermore, the necessity to amend the Grid Code and Connection Rules was highlighted.

SERC communicated its comments and recommendations on the first version of this document to the ISO BIH, in particular regarding integration of renewable energy. An innovated version of the Plan was approved by the State Electricity Regulatory Commission through adoption of a *Decision on approval of the Indicative Generation Development Plan for the Period 2017 – 2026* in June 2016.

### ***Long-Term Transmission Network Development Plans***

In 2014 the State Electricity Regulatory Commission approved the first Long-Term Transmission Network Development Plan covering the period 2014 – 2023.

The Long-Term Development Plan ensures that obligations towards the European Network of Transmission System Operators for Electricity (ENTSO-E) concerning contributions to the development of the European Ten-Year Network Development Plan are met more adequately.

Pursuant to applicable legal provisions, a long-term transmission network development plan is developed on an annual basis and covers the forthcoming ten-year period. The Long-Term Plan for the forthcoming ten-year period should be submitted to SERC for approval by the end of October. The relevance of the long-term plan is reflected in the fact that based on this plan Elektroprenos BIH prepares its annual investment plan and submits it to SERC for approval by the end of November for the following year.

*The Long-Term Transmission Network Development Plan for the Period 2015 – 2024* was submitted to SERC only in December 2015, with a 13-month delay. Although this document was submitted in the period when the planning documents for the upcoming period (2016 – 2025) and the related Investment Plan for 2016 should have been reviewed, SERC started to review the submitted Long-Term Plan and approved it at the beginning of 2016. The Plan envisaged an investment activity amounting to €432.41 million. An amount of €180.09 million was earmarked for construction of new facilities (substations, transmission lines and interconnectors amounting to €75.34 million, €41.73 million and €63.02 million respectively), while for reconstruction an amount of €245.32 million was allocated (high- and middle- voltage facilities and transmission lines amounting to €171.81 million and €73.51 million respectively).



At the beginning of July 2016, this time with a seven-month delay, the *Long-Term Transmission Network Development Plan for the Period 2016 – 2025* was submitted for approval. The mentioned Plan was approved by SERC on 30 August 2016. The Plan envisaged spending of funds in an amount of €461.33 million. The amounts of €180.13 million, 274.19 million and €7.01 million were earmarked for construction of new facilities, reconstruction and refurbishment of the existing infrastructure, and installation of shunt reactors respectively.

The *Long-Term Transmission Network Development Plan for the Period 2017 – 2026* was submitted for approval in the middle of December 2016, this time with a considerably shorter delay. This planning documents, which was prepared the same as the previous ones by *Elektroprenos BiH* and subsequently revised by the Independent System Operator in Bosnia and Herzegovina, defines the required reinforcement of the existing transmission network facilities and construction of the new ones to ensure timely commencement of activities with regard to designing, constructing and putting into operation of infrastructure necessary for the continuous supply and system stability. The total value of investments as projected by the Long-Term Plan amounts to €422.04 million.

The Long-Term Plan envisages the construction of new substations and transmission lines the value of which amounts to €105.39 million and new interconnectors the value of which amounts to €46.01 million. The Plan also includes the reconstruction and expansion of substations (€169.26 million), reconstruction of transmission lines (€71.88 million), refurbishment of the SCADA system (supervisory control and data acquisition) and telecommunication equipment (€22.50 million), and installation of shunt reactors to improve voltage regulation in the power system (€7.00 million). The State Regulatory Commission plans to pass a decision on the submitted document in January 2017.

The approved long-term plans are published on the ISO BiH and SERC internet sites.

### **Grid Code**

SERC closely monitored the process and progress of activities on developing a new *Grid Code* which were initiated by the ISO BiH in April 2016. All electricity market stakeholders were able to provide their comments on the working materials through activities of the Technical Committee which was formed for that purpose. Information on Technical Committee's meetings was publicly announced giving any interested party the possibility to participate.

The Grid Code is one of the key documents for functioning of the power system and electricity market in Bosnia and Herzegovina. It regulates the method of planning and developing the transmission system, connection requirements (procedures, contracts, criteria),



the method of operational planning (demand forecast, network constraints management) and operational work (dispatching, procedures, communications), measures in unexpected situations (consumption control, operational restoration of the system after total or partial breakdown), metering code in the power system and other necessary technical measures for quality and reliable transmission system operation.

The aim of the Grid Code is to define elements relevant for secure and reliable functioning of the BIH power system, enable development, maintenance and operation of the transmission network in compliance with the applicable rules and existing European practice.

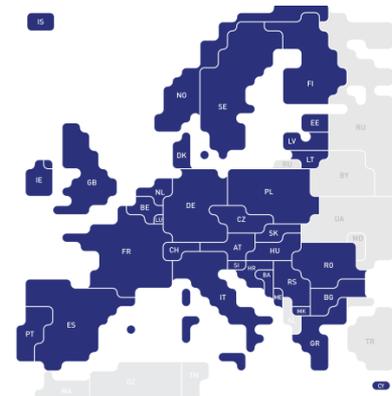
The new Grid Code represents a quality step forward in structural and normative terms, additionally defines the preparation of planning documentation and connection procedures and takes over the standards as defined by the European network codes including innovated scopes of voltage levels for normal and contingency operation.

The new Grid Code was approved by SERC at the session held on 15 December 2016.

Harmonisation, that is, unambiguous regulation of a whole set of rules for network operation was recognised in the Third Energy Package of the EU. In line with this, the EU Member States, with full participation of the European Network of Transmission System Operators for Electricity (ENTSO-E) and the Agency for the Cooperation of Energy Regulators (ACER) conduct a complex activity of developing rules for operation of networks (*Network Codes*). The set of these rules in the field of electricity initially comprised three groups:

- *System connection codes*
  - Network Code on Requirements for Generators (RfG),
  - Network Code on Demand Connection (DCC),
  - Network Code on High Voltage Direct Current Connections (HVDC),
- *System operation codes*
  - Network Code on Operational Security (OS),
  - Network Code on Operational Planning and Scheduling (OPS),
  - Network Code on Load Frequency Control and Reserve (LFCR),
  - Network Code on Emergency and Restoration (ER),
- *Market codes*
  - Network Code on Capacity Allocation and Congestion Management (CACM),

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- Network Code on Forward Capacity Allocation (FCA),
- Network Code on Electricity Balancing (EB).

The content of all network codes becomes part of European Union legislation and directly applicable in the Member States following adoption of regulations by the European Commission.

In line with the defined procedure, in the Energy Community Contracting Parties transposition of regulations should be done by national regulators following the adoption of relevant decisions by the Permanent High Level Group of the Energy Community (PHLG).

The following three regulations were adopted in the European Union by 31 December 2016 with a three-year implementation deadline:

- Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management (CACM),
- Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators (RfG),
- Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection (DCC),
- Commission Regulation (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules (HVDC), and
- Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (FCA).

On 4 May 2016, the Member States of the European Union gave a favourable opinion of the Draft Regulation establishing a guideline on electricity transmission system operation,<sup>3</sup> merging Network Codes on Operational Security (NC OS), Operational Planning and Scheduling (NC OPS), and Load Frequency Control and Reserve (NC LFCR).

In 2017, the European Commission, ACER and ENTSO-E will conduct intensive activities on completing the remaining network codes while in the Energy Community activities on adopting decisions for transposition of these codes into to the Energy Community *acquis* will be carried out. Therefore, the issue of network codes is imposed as one of the key activities in the work of relevant institutions in Bosnia and Herzegovina, primarily the State Electricity Regulatory Commission and Independent System Operator in BIH.

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<sup>3</sup> At the time of the creation of this report, the Draft Regulation is undergoing scrutiny by the European Parliament and Council in order to check its compliance with the main principles of the European Union and Third Package. The adoption of Regulation is expected in 2017.

## ***Rules for Allocation of Cross-Border Transmission Capacities***



The Coordinated Auction Office in South East Europe (SEE CAO) with the seat in Podgorica was formally established on 27 March 2014 commencing its operational activities on 27 November 2014 when annual auctions on the borders BIH – Montenegro and BIH – Croatia were organised.

During 2016, SEE CAO organised its activities in line with *Auction Rules for Capacity Allocation*, which were approved in September 2015 by the competent national regulators in the region at the request of the operators. In 2016, new versions of Auction Rules were prepared following the necessary consultation with stakeholders in the sector and the Energy Community Regulatory Board (ECRB). Taking into account the joint position of the ECRB on Auction Rules, on 28 September 2016 SERC adopted a *Decision on approval of Auction Rules for Capacity Allocation* (version 1.4 from August 2016), which the Independent System Operator submitted for approval.

On several occasions at national and international gatherings, SERC expressed its support to the successful operation of SEE CAO and welcomed the joining of the Macedonian electricity transmission system operator (MEPSO) in November 2006 and also expressed its expectation that the geographic scope would include operators from all countries of South East Europe in the near future.

As Serbia does not participate in activities of this Office, there is still a need to regulate rules for allocation of cross-border capacities on the joint border between BIH and Serbia on an annual, monthly and daily basis. Consequently, on 16 November 2016, at the request of the Independent System Operator in Bosnia and Herzegovina, SERC approved:

- *Rules for annual and monthly auctions for allocation of transmission capacities on the border between regulation areas of the Public Utility Elektromreža Srbije (EMS) and the Independent System Operator in Bosnia and Herzegovina (ISO BIH) in 2017, and*
- *Rules for daily auctions for allocation of transmission capacities on the border between regulation areas of the Public Utility Elektromreža Srbije (EMS) and the Independent System Operator in Bosnia and Herzegovina (ISO BIH) in 2017.*

As SEE CAO does not cover intraday allocation of cross-border transmission capacities, at the request of the ISO BIH the following documents were also approved by same SERC decision:

- *Rules for intraday allocation of transmission capacities on the border between regulation areas of the Independent System Operator in Bosnia and Herzegovina (ISO BIH) and the Public Utility Elektromreža Srbije (EMS) in 2017,*

- *Rules for intraday allocation of transmission capacities on the border between regulation areas of the Independent System Operator in Bosnia and Herzegovina (ISO BIH) and the Montenegrin Electric Transmission System (CGES) in 2017, and*
- *Rules for intraday allocation of transmission capacities on the border between regulation areas of the Croatian Transmission System Operator (HOPS) and the Independent System Operator in Bosnia and Herzegovina (ISO BIH) in 2017.*

Also in 2017, the allocation of transmission capacities on the border with Serbia through annual and monthly auctions is conducted by EMS while daily and intraday auctions are conducted by the ISO BIH. Intraday auctions on the borders with Croatia and Montenegro are conducted by HOPS and the ISO BIH respectively.

### ***Agreement on Common Control Reserve in the SHB Control Block***

The initial Agreement on common control reserve in the SHB Control Block among transmission system operators of Slovenia (ELES), Croatia (Croatian transmission system operator – HOPS) and Bosnia and Herzegovina (Independent System Operator in BIH – ISO BIH) was signed in January 2014, following approval by SERC in December 2013.

This significantly improved already successful cooperation of the operators in the joint SHB Control Block (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 this trilateral Agreement enabled the use of available sources to meet the needs for activating capacity reserves in a more efficient manner. All participating system operators reduced the required volume of leased capacity reserve taking advantage of synergy effects of constructive cooperation within the joint Control Block.

During 2016, the activities on concluding an innovated Agreement were carried out, which took into consideration the commencement of operation of Thermal Power Plant Stanari, the installed capacity of which was higher than 250 MW, which was previously used in calculation of required reserve volumes. Required volumes of negative tertiary reserve ('downward' reserve) were updated in the new text while some technical aspects of implementing the Agreement were elaborated in more detail including engagement, calculation and payment of control reserves.

At the end of December 2016, the State Electricity Regulatory Commission gave its approval for conclusion of the innovated *Agreement on common control reserve in the SHB Control Block*.

### ***Operation of Transmission System Users during Functional Testing and Trial Operation***

With regard to completion of construction works at the Thermal Power Plant Stanari, the first constructed facility of this kind in the past 28 years in Bosnia and Herzegovina, at the proposal of the Independent System Operator in BIH, at the end of 2015 SERC gave its approval to the method of operation of the Company EFT – Rudnik i Termoelektrana Stanari (EFT – Stanari Coalmine and Thermal Power Plant Company) during functional testing and trial operation.

As an exception to the Market Rules, the Company as a transmission system user was permitted to provide reserve capacity for a six-month period, that is, energy to cover its own imbalances and compensate for all unintentional deviations through compensation programs as defined by the ISO BIH.

As all functional tests had not been completed in this period, in practice SERC approved an extension of this mode of operation for three more months having regard to the positive effects of implementing its initial decision on the BIH power system operation and being ware of ENTSO-E standards with regard to duration of functional tests.

Functional testing in the electricity transmission network lasted from 4 January 2016 when the power plant was first synchronised with the BIH power system until 20 September 2016 when Thermal Power Plant Stanari officially started its commercial operation.

### **3.3 Licensing Proceedings**

In 2016, SERC granted five licenses for the international electricity trading activity. Due to the expiration of the term of the previously issued license for the international electricity trading activity, the proceedings were conducted and five-year term licenses were renewed to the following entities:

- GEN-I d.o.o. Sarajevo (January 2016),
- Alpiq Energija BH d.o.o. Sarajevo (April 2016).

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

- Vitol Adriatik d.o.o. Sarajevo (March 2016),
- Prvo plinarsko društvo d.o.o. Sarajevo (June 2016),
- G-Petrol d.o.o. Sarajevo (July 2016).

The licences for the international electricity trading activity issued after January 2016 are used pursuant to the *Standard licence conditions for performance of the international electricity*

*trading activity.* By adoption of these conditions as a standard set of rules on the right and obligations of the licensee known beforehand (the acceptance of which is confirmed by submitting a written statement to that effect already with the licence application), SERC further simplified and expedited the procedure for granting this type of licences, which is most common in practice. This also considerably reduced the number of documents which circulated so far both within SERC and in communication with the applicant and interested third parties due to formal and procedural reasons.

LE Trading BH d.o.o. Banja Luka, that has not been granted a SERC licence in the previous period, filed an incomplete licence application for the international electricity trading activity. The procedure for granting of the licence is still ongoing as the applicant has not removed the presented shortcomings.

In February 2016, by the SERC Decision the license for performance of the international electricity trading activity granted to Repower Adria, d.o.o. Sarajevo was revoked at the request of the licensee.

After notification of changes of the seat, that is, address by two licensees, decisions on an extension of use of the licence were adopted for the following companies at their newly registered addresses: Proenergy d.o.o. Sarajevo (October 2016) and HEP-Trade d.o.o. Mostar (December 2016).

In addition to the Companies already mentioned in this Report as the licensees, in the previous period the same status was registered for the following entities: HSE BH d.o.o. 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, Energy Financing Team d.o.o. Bileća, Ezpada d.o.o. Mostar, Comsar Energy Trading d.o.o. Banja Luka, Axpo d.o.o. Sarajevo, Petrol BH Oil Company d.o.o. Sarajevo, EFT – Rudnik i Termoelektrana Stanari d.o.o. Stanari, Interenergo d.o.o. Sarajevo and Danske Commodities BH d.o.o. Sarajevo.

The Independent System Operator in Bosnia and Herzegovina Sarajevo and Elektroprenos Bosne i Hercegovine a.d. Banja Luka are holders of the license for performance of the activity of independent system operator and the license for the electricity transmission activity respectively. The Public Utility Komunalno Brčko d.o.o. Brčko holds the license for electricity distribution in the Brčko District of BIH and the license for electricity trading and supply in the territory of BIH.

Every year, including this one, the Company Elektroprenos Bosne i Hercegovine updated and reported changes in overviews of the facilities used by the Company for performance of the electricity transmission activity as well as overviews of the

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 April 2016.

With the market and regulatory framework development, enhancement of competition and, in particular, increase in a number of traders in the electricity market, there was no longer any reason for certain industrial consumers to be engaged in international trading – import of electricity for self-consumption to meet their own needs by using a special license. Therefore, as of 1 January 2017, the international electricity trading licences for self-consumption granted pursuant to the previously applicable rules will no longer be active.

### **3.4 Monitoring of Activities of Licensed Entities**

As part of its regular activities, throughout the year the State Electricity Regulatory Commission monitors operations of the licensed entities and their compliance with the licence conditions, primarily by monitoring regulated companies – the ISO BIH, Elektroprenos BIH and JP Komunalno Brčko. Monitoring is performed by an analysis of regular and special reports submitted by the licensed entities as well as by announced or unannounced visits to licensees. Licensees submit annual, semi-annual, monthly and daily reports on individual activities of a financial, technical and organisational character. In addition, licensees' reports on contingency events in the system are available.

Visits of SERC experts to the regulated entities enable a direct insight into their documents and activities, which is of great relevance in particular when analysing the financial position of an entity from the aspect of application of approved tariffs.

In November 2016, the following regulated entities were visited in the function of regulatory monitoring:

- Independent System Operator in Bosnia and Herzegovina,
- Elektroprenos Bosne i Hercegovine, and
- JP Komunalno Brčko.

After a visit in the function of regulatory monitoring, SERC called on the ISO BIH to demonstrate responsibility with regard to the framework and structure of approved costs and expenditures. The obligation to comply with deadlines for review and submission of a long-term transmission network development plan was highlighted (until the end of October in the current year for the upcoming ten-year period).

The ISO BIH was instructed to monitor voltage quality pursuant to EN 50160 standard and impact of large consumers on voltage quality at transmission network connection points.



It was emphasised that it was necessary to report timely and fully on international activities of the ISO BIH including activities within the Security Coordination Centre (SCC), the Coordinated Auction Office in South East Europe (SEE CAO), the European Network of Transmission System Operators for Electricity (ENTSO-E) and the current status and implementation of the agreement at the level of the SHB Control Block (Slovenia – Croatia – BIH).

Regarding the issue of connection and putting of new generation facilities into operation, the need was recognised to transform the experiences gained into rules and regulations dealing with these matters. In the forthcoming period, it would be useful to prepare and make available to all potential investors descriptive informative materials with necessary steps to be undertaken in the phase of connecting and commissioning trial operation of any new generation facility. The ISO BIH should be in charge of the mentioned activities, in consultation with *Elektroprenos BIH*, the competent regulators and ministries. With regard to maximum integration capacity of unmanageable energy into the BIH power system, the ISO BIH had been asked on several occasions to prepare a new estimation of maximum integration capacity of unmanageable energy including solar and wind power plants. With regard to this matter, it was requested again to submit to SERC a proposal with a reasoned estimation which would be used by SERC as the basis for an appropriate decision.

With a view of increasing transparency, including information sharing and quality interaction of market participants, it was stressed that it was important to publish rules, regulation, forms and other documents in a timely manner and update power indicators and other information on the ISO BIH website.



As part of regulatory monitoring, SERC asked *Elektroprenos BIH* to provide reports on the implementation of approved Long-Term Transmission Network Development Plan and Investment Plan in tabular form and reminded it to adhere to the prescribed schedules for submission of new planning documents for approval.

Taking into consideration the long-lasting problem concerning voltage levels in the transmission network, *Elektroprenos BIH* was asked to find an optimum solution for BIH in cooperation with the ISO BIH and neighbouring operators. As the level and duration of voltage deviations lead to degradation of equipment and operational problems affecting not only consumption but also generation, it was underlined that it was needed to implement the relevant investments from the approved Long-Term Transmission Network Development Plan.

It was suggested to the Company to resolve the issue of outstanding receivables with other business entities in the country as soon as possible and pursuant to the relevant laws.

The necessity to constantly improve the quality of service was highlighted in particular, primarily by enhancing operational readiness of the facilities and lines and building new infrastructure in the function of reliable supply and connection of new users.

JP Komunalno Brčko was once again requested by the State Electricity Regulatory Commission to conduct unbundling of accounts for non-energy activities and fulfil the obligation to adequately register the incomes of the Work Unit *Elektro distribucija*, separately from the 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).

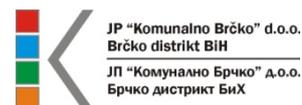
SERC reminded the regulated entity of the obligation to define ownership relationships over the fixed assets in the function of electricity distribution and supply, which are registered as fixed assets of the Government of Brčko District BiH, with JP Komunalno Brčko having a servitude right. The necessity to resolve the issues of depreciation of these assets was pointed out, in particular in terms of investment maintenance.

The licensee was requested to prepare a long-term investment plan which would include necessary funding as well as a method to ensure it. The obligation to update annexes to the electricity distribution licence was highlighted, namely, an *Overview of Facilities* used for this activity.

Having noted a significant share of labour costs when analysing expenses of the Company, SERC pointed to the need for proper acting in this segment, in particular with regard to staff recruitment, highlighting on this occasion operation of competitive suppliers in the market.

The following international traders were visited in the function of regulatory monitoring in December 2016: Proenergy d.o.o. Sarajevo, Prvo plinarsko društvo d.o.o. Sarajevo and G-Petrol d.o.o. Sarajevo.

The visits were conducted with a view of inspecting the licensed activity and establishing facts on fulfilment of the prescribed licence conditions. On this occasion, the necessity to permanently fulfil general and specific criteria was emphasised (in case of performing other activities, the licensee is obligated to ensure unbundling of accounts for the licensed activity and other activities).



The obligations of complying with tariffs, Market Rules and Grid Code, including the right to participate in the work of technical committees, were pointed out. Furthermore, during the visit other business documents of international traders were also inspected, information on problems encountered by some entities was collected and it was suggested to pay more attention to some aspects of performing the licensed activity which may violate the compliance with the prescribed licence conditions.

The current financial standing of the entities was inspected with regard to compliance with the prescribed conditions regarding the amount of registered capital and the licensees' financial stability.

Increased interest in the retail electricity market operation was noticed during the monitoring activities.

### **3.5 Dispute Resolution**

Dispute resolution among transmission system users falls under the regular SERC authorities and powers. *Elektroprenos Bosne i Hercegovine* and *Elektroprivreda Hrvatske zajednice Herceg Bosne* are the first two entities that asked SERC to act in this capacity and resolve their multiannual dispute. The dispute occurred due to different views on the existence of obligation by one party to pay costs of the fee for connection of HPP Mostar-sko blato to the transmission network.

Having assessed that both parties provided sufficient evidence to be used for the correct and complete establishment of facts, SERC decided to resolve the dispute using the shortened procedure of which the parties to the dispute and the public had been previously informed. There was no objection to this intention of SERC.

The passing of a decision on justification of the arguments offered by both parties is expected by the end of January next year. It will be the first SERC decision of this type. What makes it serious is its specific nature and the value of the claim, appearance of the regulatory authority in the new capacity, its possible impact on economic interests of both parties. It will be particularly important for the building and enhancing of confidence in SERC to process disputes between interested parties in the future.

A decision of the State Regulator is binding but it does not preclude the right of any party to the dispute to initiate proceedings before the relevant court.

### 3.6 Technical Aspect of Transmission System Operation

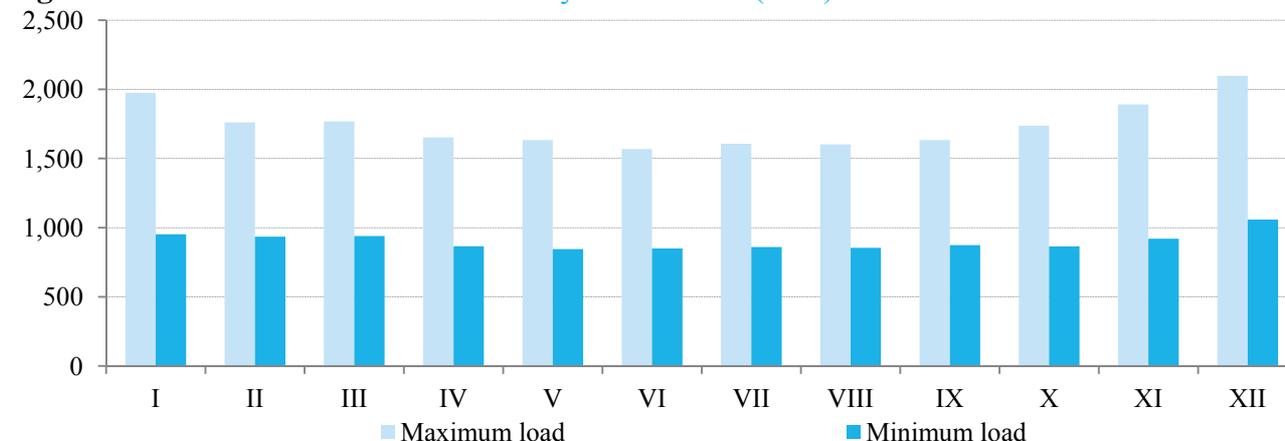
The BIH power system operation was stable and without bigger problems throughout the year. Functional operation was enabled for all system users in accordance with the defined quality standards. The planned works as well as those additionally requested in the transmission network were completed in the function of the current and investment maintenance.

After the successful completion of testing during trial operation, Thermal Power Plant Stanari with 300 MW of installed capacity started its regular production during 2016.

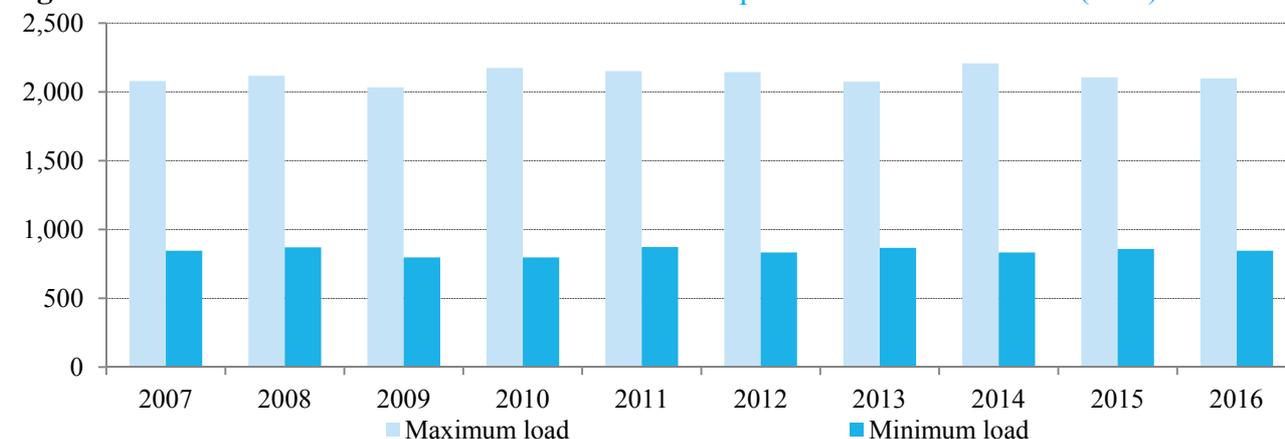
A maximum load of the power system in 2016 was recorded on 31 December at the 18<sup>th</sup> hour amounting to 2,098 MW, while maximum daily electricity consumption of 40,340 MWh was achieved on 23 December 2016.

A minimum load of 845 MW was recorded on 23 May 2016 at the 16<sup>th</sup> hour, while minimum daily electricity consumption of 27,296 MWh was achieved on 19 June 2016. Maximum and minimum loads in 2016 and over the past ten years are presented in Figures 1 and 2 respectively.

**Figure 1. Maximum and minimum monthly load in 2016 (MW)**



**Figure 2. Maximum and minimum annual load over the period from 2007 to 2016 (MW)**

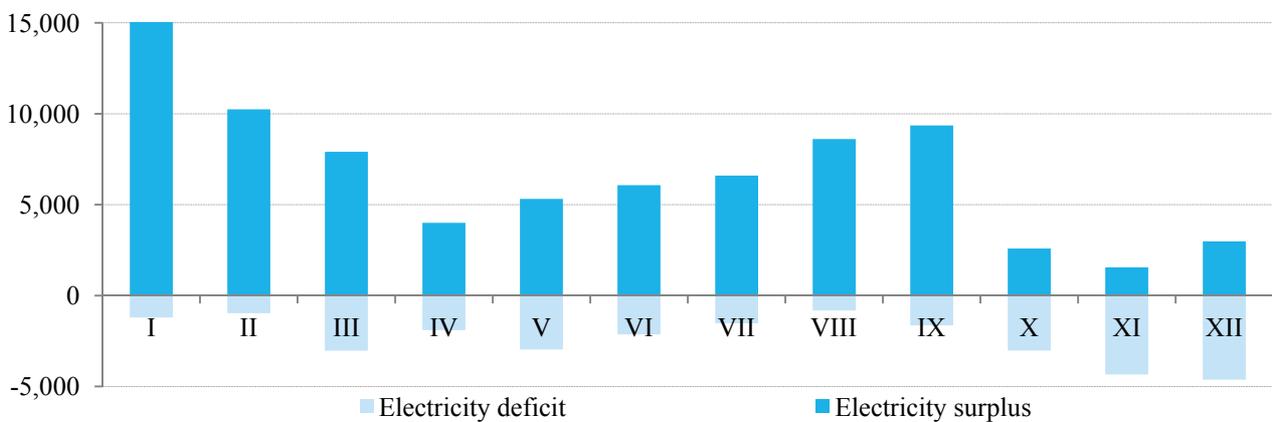


Unintended deviations from declared exchange schedules in the SHB Control Block during the whole 2016 amounted to 28 GWh in total at hours at which an electricity deficit was registered in the BIH control area, and 80 GWh at hours at which an electricity surplus was registered. Monthly deviations of the BIH power system towards the SHB Control Block in 2016 are presented in Figure 3. A maximum hourly electricity deficit (shortage) was recorded in December amounting to 313 MWh/h, while a maximum surplus (overspill) was recorded in September 2016 amounting to 239 MWh/h.

Total electricity withdrawn from the transmission network amounted to 19,070.1 GWh, which is a 6.8 % increase in comparison to 2015. Transmission losses amounted to 333.3 GWh, or 1.75 % of total energy in the transmission system. The trend of reducing distribution losses continued and they amounted to 1,024.8 GWh or 10.26 % in relation to gross distribution consumption, which was the lowest level recorded in the history of the BIH power sector. Percentage of transmission and distribution losses is presented in Figure 4.

In 2016, PHP Čapljina took over 46.2 GWh in the pumping mode.

**Figure 3. Monthly deviations of BIH power system towards SHB Control Block in 2016 (GWh)**



**Figure 4. Transmission and distribution losses**

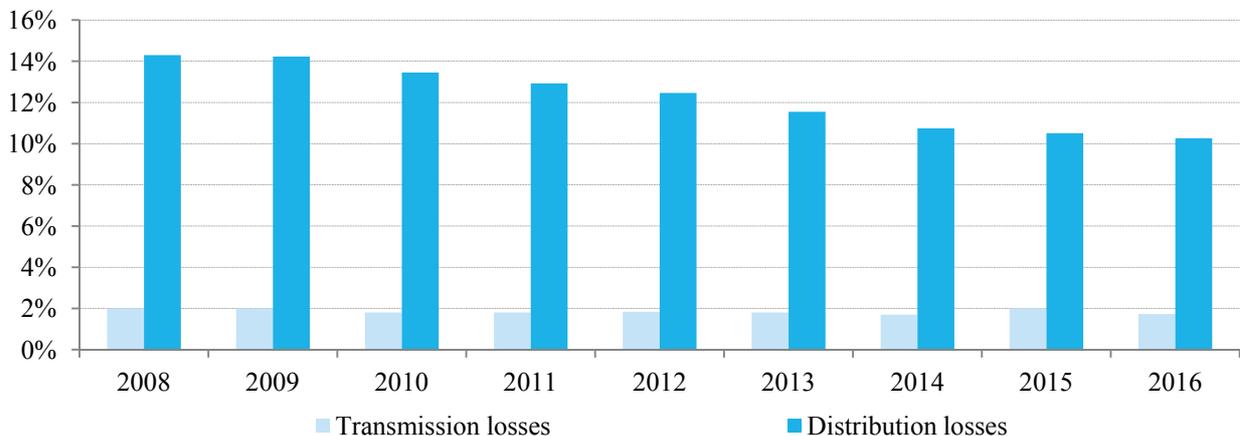


Table 1. Energy not supplied due to interruptions in the transmission network

	2012		2013		2014		2015		2016	
	MWh	min	MWh	min	MWh	min	MWh	min	MWh	min
ENS <sub>unpl</sub>	2,499.08	110,506	494.74	17,484	420.75	35,458	467.22	21,017	528.46	15,975
ENS <sub>pl</sub>	1,081.15	47,807	1,362.40	29,940	1,328.79	25,646	1,244.37	58,363	287.16	25,032
<b>Total</b>	<b>3,580.23</b>	<b>158,313</b>	<b>1,857.14</b>	<b>47,424</b>	<b>1,749.54</b>	<b>61,104</b>	<b>1,711.59</b>	<b>79,380</b>	<b>815.62</b>	<b>41,007</b>

Table 2. Average interrupted time in the transmission network by month (min)

Month	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
AIT <sub>2012</sub>	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 <sub>2013</sub>	4.4568	9.4367	6.2339	10.8451	3.5897	9.4802	8.9578	3.8633	10.8216	9.1419	3.4251	3.8644
AIT <sub>2014</sub>	4.0226	0.9460	7.6195	7.8256	1.4890	21.1840	4.1355	5.0214	14.1595	5.8988	7.6719	2.8193
AIT <sub>2015</sub>	0.3656	1.4387	9.7107	8.5098	12.3043	11.2509	5.9257	6.2781	6.6186	9.7405	5.1279	2.1100
AIT <sub>2016</sub>	0.3549	1.0903	0.1659	0.0799	0.9460	4.6876	13.4773	5.6841	5.9238	0.8767	1.8523	2.3055

Data on energy not supplied (ENS) due to unplanned interruptions (ENS<sub>unpl</sub>), as well as energy not supplied due to planned interruptions (ENS<sub>pl</sub>) in the BIH power system over the past five years are provided in Table 1. It is evident that total energy not supplied over the past five years has been continuously decreasing.

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

As far as investments in the transmission network are concerned, the Transmission Company's own funds available for investments in 2016 amounted to €138,852,559. The value of materials provided in the previous period amounted to €2,455,434, while transferred contractual obligations from the preceding years amounted to €35,036,638. In 2016 an amount of €29,636,782 was contracted, while earmarked funds amounted to €64,493,521.

In the course of 2016, several contracts on construction, reconstruction and rehabilitation of transmission facilities were implemented. The new transmission line DV 110 kV Visoko – Fojnica, and new substations TS 110/x kV Bužim, Fojnica, Laktaši 2, and Mostar 9 (Buna) with reconstructed or new connection transmission lines were put into operation. Furthermore, transformer TR3 220/110 kV with capacity of 150 MVA was put into operation at the substation TS Trebinje, while an old transformer TR1 at the substation TS Zenica was replaced by the new 220/110 kV transformer with capacity of 150 MVA. Substation TS Tuzla 4 110/x kV was partially reconstructed at all voltage levels while substation TS Bileća 110/x kV was fully reconstructed in addition to reconstruction and partial modifi-

cation of the route of 220 kV transmission line switchyard (RP) Kakanj – substation TS Tuzla 4.

Similar to the previous years, in 2016 voltage levels in the power system often exceeded their regular scopes. The main reasons for occurrence of high voltage in the BIH transmission network were as follows:

- under-loaded 400 kV transmission lines during low demand periods,
- periodically low reactive power consumption in BIH from the aspect of 110 kV network (situations with low operational load and increased reactive power consumption are exceptional occurring in summer when the increased use of air conditioners lead to lower voltage in the network),
- periodical and unplanned operation of generators in BIH in capacitive part of capability curve,
- very low level of operation of PHP Čapljina in the compensation regime,
- blocked positions of tap switching voltage regulators,
- unadjusted transmission ratios of transformers having the possibility of zero voltage switching,
- unfavourable impact of the power systems of Croatia and Montenegro, in particular of Croatia, where voltage levels in the southern part of 400 kV network almost half the time annually exceed the maximum of allowed upper limit (TS Konjsko),
- insufficient possibilities of voltage and reactive power regulation ( $Q/U$  regulation) at the voltage level of 400 kV.

In 2016, in order to lower high voltage levels, regulation of transformers was conducted, power plants were instructed to operate in sub-exciter mode, while 400 kV and 220 kV transmission lines were disconnected as a measure of last resort (47 times), taking into account the security of supply criterion, that is, meeting the so-called  $n - 1$  criterion. The highest voltage levels in the 400 kV and 220 kV network were registered at substation TS Trebinje – 451.41 kV and 259.57 kV respectively, while in the 110 kV network this was the case with substation TS Mostar 4 – 127.4 kV.

In 2016, 527 outages were registered in the transmission system, of which 210, 222 and 59 at 110 kV, 220 kV and 400 kV voltage level respectively. In addition, 13 failures of 400/220 kV transformers, six failures of 400/110 kV transformers and seven failures of 220/110 kV transformers were registered.

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

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

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

Table 3. SAIFI and SAIDI for the transmission network

	2012	2013	2014	2015	2016
Planned interruptions	0.87	0.83	0.72	0.65	0.55
SAIFI Unplanned interruptions	1.16	1.01	0.80	0.90	0.97
<i>Total</i>	2.03	1.84	1.52	1.56	1.52
Planned interruptions (min/customer)	146.62	124.36	143.84	108.53	92.92
SAIDI Unplanned interruptions (min/customer)	142.24	55.69	277.15	76.00	68.61
<i>Total (min/customer)</i>	288.87	180.05	421.01	184.52	161.53

Table 4. SAIFI and SAIDI for the transmission network including outages of middle voltage feeders caused by interruptions in the distribution network

	2012	2013	2014	2015	2016
Planned interruptions	4.27	4.52	3.99	4.12	3.53
SAIFI Unplanned interruptions	8.53	9.35	7.61	7.76	5.78
<i>Total</i>	12.80	13.87	11.60	11.88	9.31
Planned interruptions (min/customer)	393.93	404.33	671.60	365.77	399.12
SAIDI Unplanned interruptions (min/customer)	729.96	474.87	678.42	532.99	371.99
<i>Total (min/customer)</i>	1,123.89	879.20	1,350.02	898.76	771.18

The SAIFI and SAIDI indices are obtained by monitoring the number and duration of interruptions in the Transmission Company'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 transmission network, while Table 4 also includes interruptions in middle voltage feeders in the Transmission Company's substations caused by disturbances in the distribution network. The indices are significantly less favourable in Table 4, taking into consideration outspread connections and length of the distribution network which is in practice more prone to different types of failures.

The basic data on the BIH power system and the map of the system are provided in Attachments A and B respectively.

### 3.7 Tariff Proceedings

#### *Tariffs for Electricity Customers in Brčko District BIH*

The proceedings for setting of tariff rates for electricity distribution services and tariff rates for electricity supply within the universal service in the Brčko District of BIH were initiated in August 2016, following an application by the regulated company – *JP Komunalno Brčko*.

A formal public hearing within the proceedings was held on 31 August 2016. After the regulated company provided all information requested additionally including the electricity procurement costs, in December 2016 SERC passed the decisions on tariffs for distribution and electricity supply within the universal service in the Brčko District of BIH, the application of which will start on 1 January 2017 thus replacing the decisions applicable in the preceding two years.

The decisions passed did not change the prices the customers pay for the distribution network utilisation or average prices paid by all customers supplied within the universal service. The cross-subsidies between commercial customers and households were reduced from 20 % to 10 %. Thus, an average price for supply of commercial customers was reduced by 5.8 %, while the price for households increased by 2.8 %. This adjustment occurred due to the regulator's obligation to gradually allocate all associated real costs to the relevant category of customers.

In the first half of 2016, the households in Brčko District of BIH had the lowest average electricity price in Bosnia and Herzegovina (0.0645 €/kWh). The new prices for households are 10.4 % lower than those paid by customers of Elektroprivreda BIH, that is, 13.3 % lower than those paid to Elektroprivreda HZHB, and 2.6 % higher compared to households supplied by Elektroprivreda RS. Hence, the new prices for households are 5.6 % lower than an average price for households in Bosnia and Herzegovina.

A particular emphasis in the tariff proceedings was put on the distribution system operation in the Brčko District of BIH. Distribution losses in 2015 and 2016 amounted to 13.08 % and 12.38 % respectively in comparison to gross distribution consumption, which is higher than average values in Bosnia and Herzegovina, where these losses at the same time amounted to 10.51 % and 10.26 % respectively. With a view to cutting distribution losses and gradually reducing them to an average level in BIH, and taking into consideration operational measures implemented by JP Komunalno Brčko, SERC approved an amount of 12 % for distribution losses in 2017.

### ***Tariff Proceedings at Request of Independent System Operator in BIH***

Pursuant to the legal obligation to submit for consideration the application for revenues and expenditures in the following year as well as costs that the Company plans to include in the tariffs for system operation, the ISO BIH filed such an application in October 2016, in which it presented and explained planned revenues, expenditures and costs in 2017. The tariff for operation of independent system operator amounting to

0.3776 €/MWh was requested in the application, which would present a 24.75 % increase.

The tariff application is resolved pursuant to the criteria as laid down in the *Law on Transmission of Electric Power, Regulator and System Operator of Bosnia and Herzegovina and Tariff pricing methodology for services of electricity transmission, operation of ISO and ancillary services*. When deciding on the application, to the extent possible SERC adheres to the basic principles prescribing that tariffs will be fair and reasonable, non-discriminatory, established on objective criteria, based on justified costs and determined in a transparent manner.

A formal public hearing in the proceedings was held at the beginning of December 2016. On that occasion, the regulated company provided an addition explanation of planned expenditures and costs for the forthcoming year, while the interveners presented their interests and expectation for the tariff to remain at the current level.

The tariff proceedings at request of the Independent System Operator in Bosnia and Herzegovina will continue in 2017.

### ***Tariffs for Electricity Transmission Services***

In November 2016, *Elektroprenos Bosne i Hercegovine* filed the application for modification of the electricity transmission tariff in which the Company presented requests for revenues and expenditures as well as costs that the Company plans to charge for its services. The average tariff for electricity transmission amounting to 5.4095 €/MWh was requested in the application, which would be a 19 % increase.

SERC decides upon this tariff application also pursuant to the criteria and principles applied in the previous tariff proceedings. A formal public hearing at which facts in the tariff proceedings were determined was held at the end of December 2016.

With the electricity market development in Bosnia and Herzegovina, market participants' interest in participating directly in tariff proceedings in the capacity of intervener also increased. In addition to the regulated company, five more entities with intervener status granted by SERC actively participate in the proceedings, which is a record in the number of participants actively participating in the proceedings before the regulatory authority.

The passing of a final decision in the proceedings is planned for the end of February 2017. SERC is determined to ensure an equal approach and correlation in the assessment and approval of certain elements of the tariff applications of the Independent System Operator in BIH and *Elektroprenos BIH*.

### 3.8 Electricity Market

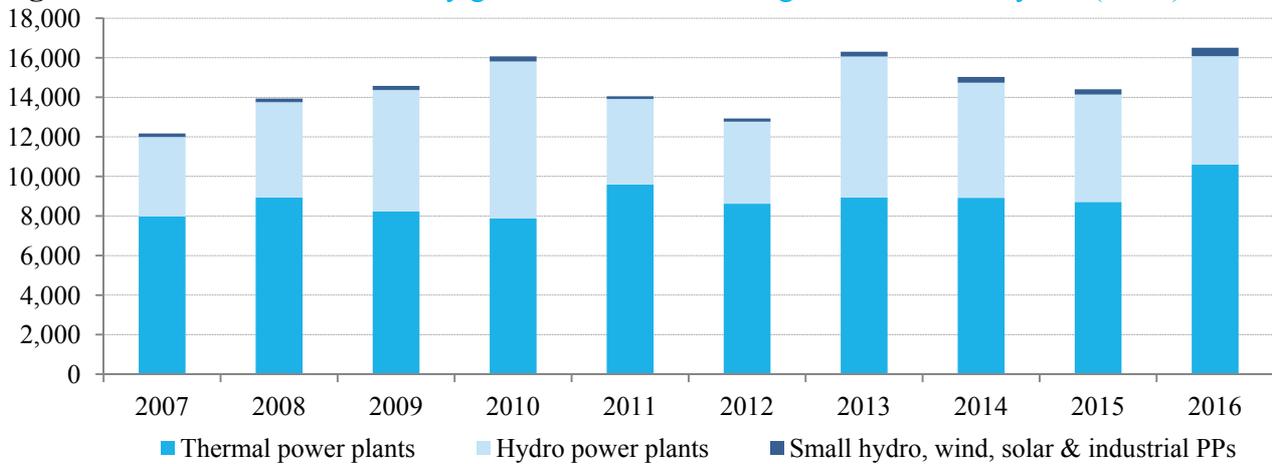
#### Power Indicators

A record in electricity generation was reached in Bosnia and Herzegovina in 2016 amounting to 16,509 GWh, which is 1,101 GWh, or 14.6 % more in comparison to the previous year. This increase is the direct consequence of construction and commencement of operation of Thermal Power Plant Stanari, the projected annual generation of which is higher than 2,000 GWh.

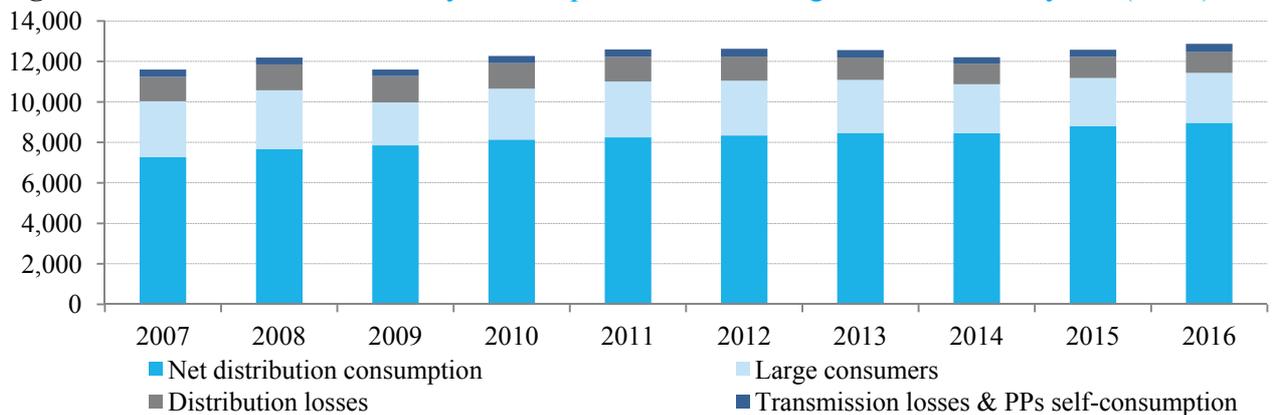
Hydro power plants produced 5,469 GWh or 0.8 % more than in 2015. Nevertheless, the last year, 2016, may also be described as moderately unfavourable in hydrological terms, during which realised inflows were lower than the multiannual average. Generation by thermal power plants reached a record of 10,608 GWh, which is 1,896 GWh, or 21.8 % more than in the previous year.

Small-scale renewable generation (small hydro, solar and wind power plants) also recorded a considerable increase of 62.3 % amounting to 400.8 GWh. A dominant share in this category is still held by small hydro power plants (374.27 GWh, or 93.3 %), solar power plants produced 26.5 GWh (6.6 %), while wind

**Figure 5.** Break-down of electricity generation in BIH during over the last ten years (GWh)



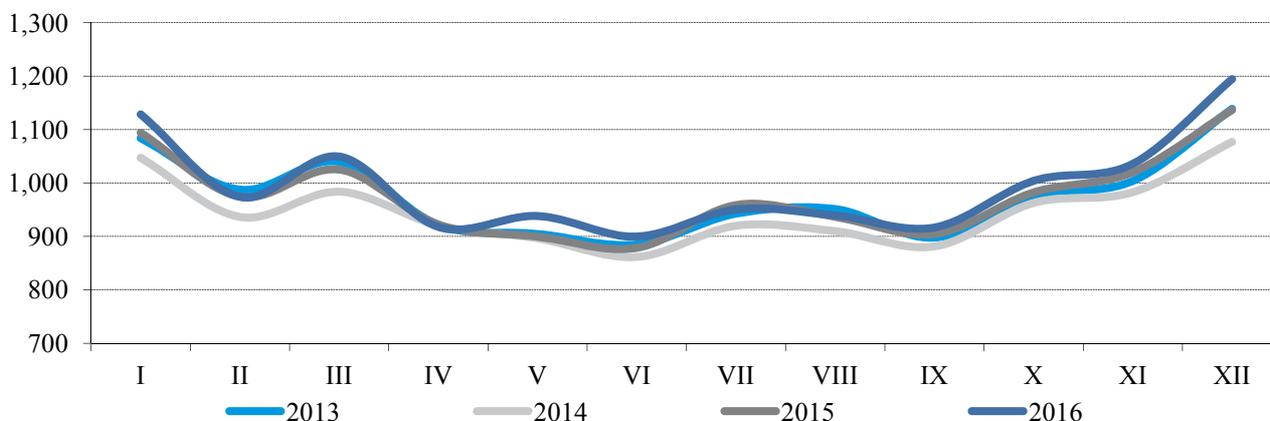
**Figure 6.** Break-down of electricity consumption in BIH during over the last ten years (GWh)



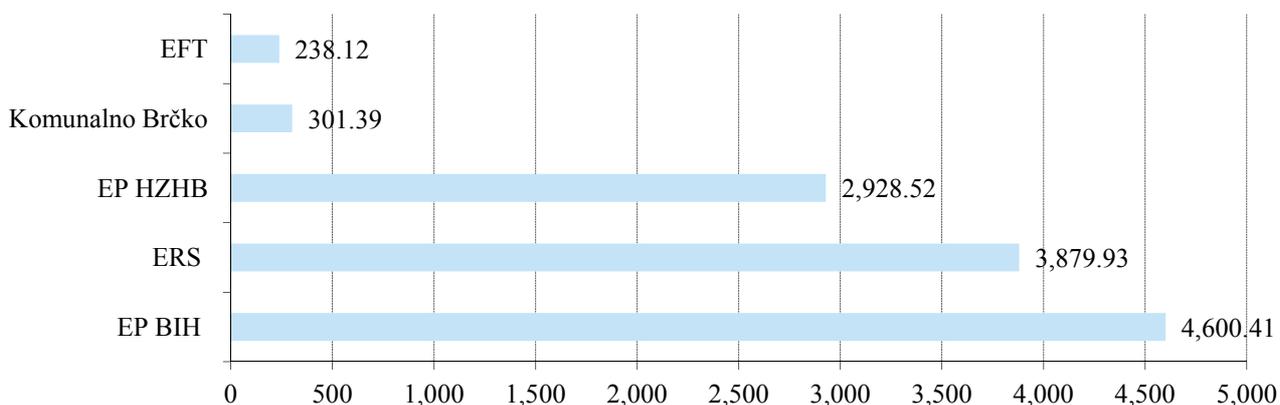
power plants produced only 0.03 GWh (0.007 %). Independent producers have ever more important share in small-scale renewable generation, the facilities of which produced 276.8 GWh. Industrial power plants produced 30.9 GWh. A break-down of generation over the last ten years is provided in Figure 5 while a break-down of total consumption in BIH is provided in Figure 6.

Total electricity consumption amounted to 12,865 GWh, so an annual upward trend in the previous year was reduced from 3.2 % to 2.1 %. Nonetheless, with this total consumption reached a historic maximum. Consumption of customers connected to the transmission network increased by 4.1 % amounting to 2,469 GWh, while consumption of customers connected to the distribution network amounted to 9,988 GWh, or 1.4 % more than in the previous year. The highest increase in consumption was noted among the customers connected to the 10 kV voltage level (6.5 %), followed by public lighting (3.7 %), while the customers falling under the category other consumers (commercial customers connected to 0.4 kV) increased their consumption by 2.3 %. Households reached almost the same level of consumption as the previous year (0.01 % increase) while the customers connected to 35 kV decreased their consumption by 2.5 %.

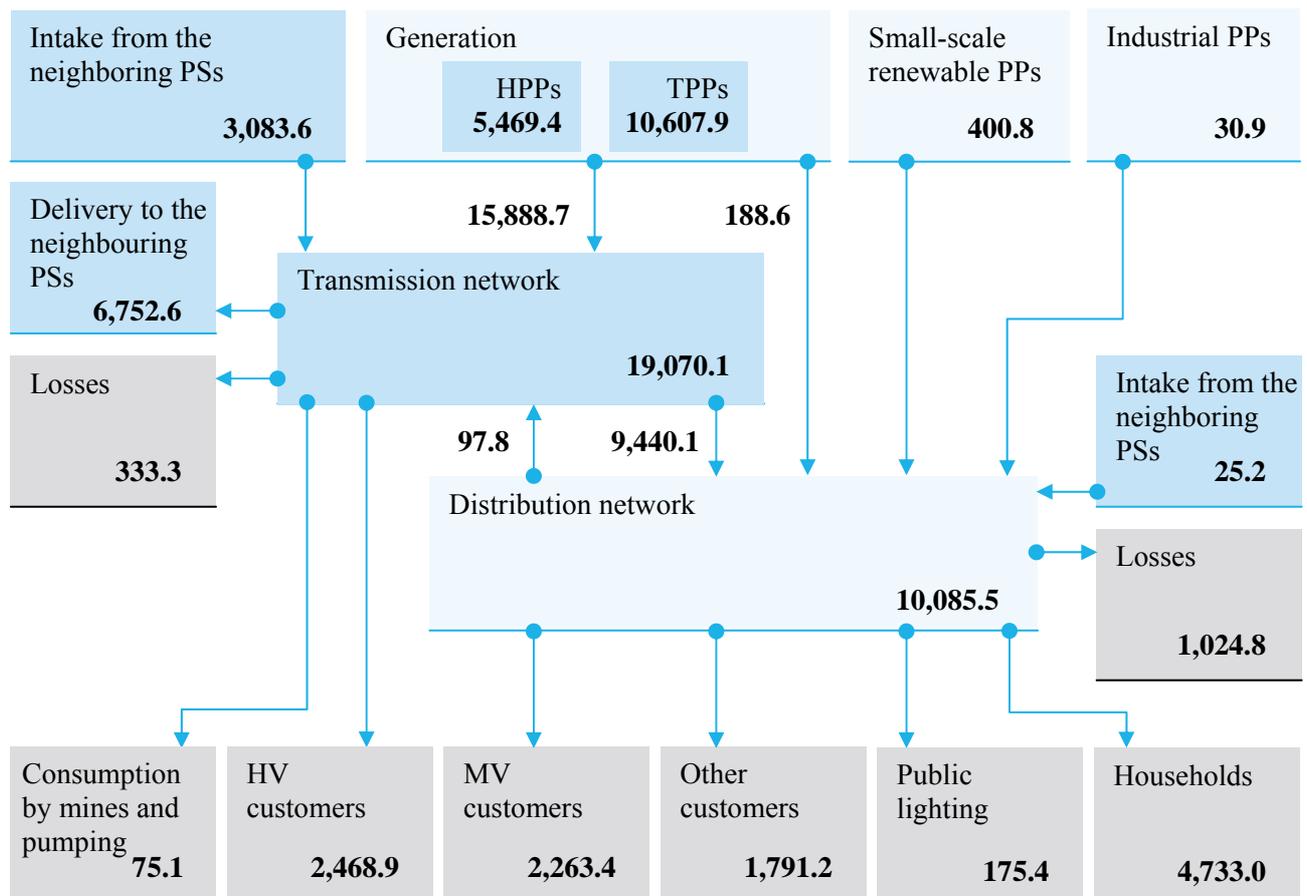
**Figure 7.** Energy taken over from the transmission network in BIH – monthly data (GWh)



**Figure 8.** Energy taken over from the transmission network in 2016 per supplier (GWh)



**Figure 9. Balance volumes realised in 2016 (GWh)**



Electricity taken from the transmission system amounted to 11,948 GWh which is a 1.4 % increase in comparison to 2015. In December 2016, a record in monthly withdrawal of electricity from the transmission network was registered amounting to 1,194.4 GWh (the previous record amounting to 1,163.3 GWh was registered in January 2012). Data on energy taken from the transmission network by months and suppliers are presented in Figures 7 and 8 respectively.

The difference between total generation and total consumption in BIH, that is, the balance surplus in 2016 amounted to 3,644 GWh, or 1,842 GWh more than in the previous year. A descriptive overview of power balance volumes realised in 2016 is provided in Figure 9. The basic power indicators of BIH are provided in Attachment C.

### ***Regional Electricity Market***

The same as in the previous years, the characteristic of the electricity market in South East Europe continues to be a downward trend in wholesale electricity prices. For most of the year, according to indices of the Hungarian power exchange (HUPX), which is most often taken as the reference PX for the region, wholesale electricity prices were below 40 €/MWh, with an

Table 5. Electricity prices at power exchanges (€/MWh)

<i>PX indices</i>	<i>Average price</i>	<i>Maximum price</i>	<i>Minimum price</i>
Phelix	28.94	60.06	-12.89
ELIX	29.79	76.02	-26.55
SIPX	35.58	65.76	1.45
HUPXDAM	34.16	62.20	6.25
OPCOM	33.28	62.20	6.99
SEEPEX	35.04	63.14	9.14
CROPEX	35.16	63.67	7.93

*Phelix – European Energy Exchange (EEX) index for Austria and Germany*

*ELIX – European Power Exchange index of EEX*

*SIPX – Slovenian Power Exchange index*

*HUPXDAM – Day-ahead index of Hungarian Power Exchange (HUPX)*

*OPCOM – Romanian Power Exchange index*

*SEEPEX – Serbian Power Exchange index*

*CROPEX – Croatian Power Exchange index*

annual average of 34 €/MWh, which is 15.9 % below the previous year's average. A significant increase was registered in December when prices exceeded the level of 60 €/MWh. Long-lasting low temperatures during the winter months changed the downward trend of wholesale prices on the continent, which, combined with the existing volatility of geopolitical events, brought certain expectations of an increase in wholesale prices in the forthcoming period. Table 5 presents electricity prices on the relevant power exchanges from the aspect of South East Europe.

### ***Electricity Market in BIH***

In 2016, total electricity consumption in BIH amounted to 12,865 GWh, or 2.1 % more than in the previous year. Customers connected to the transmission took over 2,469 GWh or 4.1 % more than in the previous year. 9,988 GWh was taken over from the distribution network, or 1.4 % more than in the previous year, of which 8,963 GWh pertains to take-over by end customers and 1,025 GWh to distribution losses. Total sale to customers in BIH increased by 2.2 % amounting to 11,432 GWh.

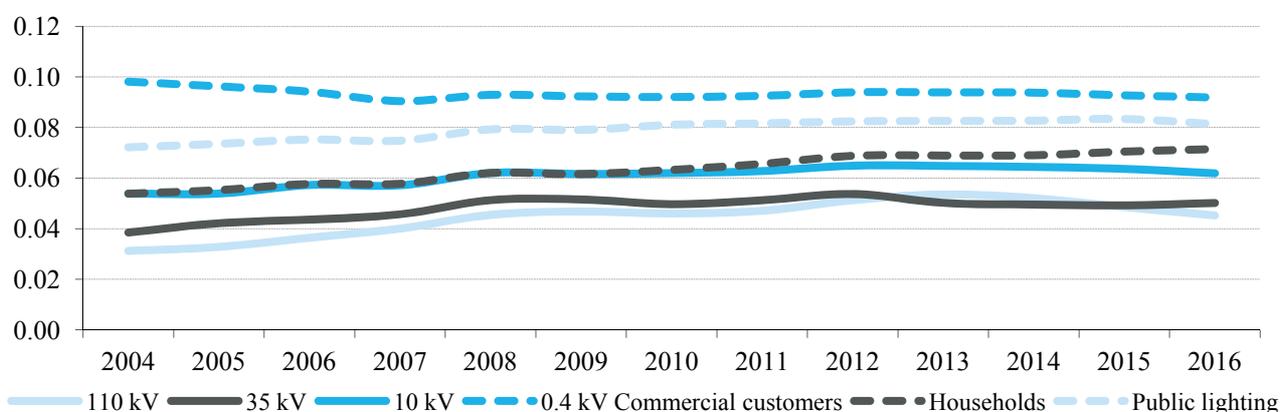
The average price for customers supplied by public suppliers amounted to 0.0672 €/kWh which is a 2.7 % increase compared to the previous year. Total value of sale to these customers amounted to €747 million, which is an increase of €33.59 million or 4.7 % more than in 2015. Thus, the financial scope of sale increased due to an increase in the physical scope whereby an average selling price decreased. The average price for households amounted to 0.0715 €/kWh, which is a 1.5 % increase compared to the previous year. An average 5.8 % decrease in average

selling price was observed among all other customers. The Regulatory Commissions work on the gradual elimination of inherited cross-subsidies among some categories of electricity customers, which is done in accordance with best international regulatory practice in order to avoid so-called ‘tariff shocks.’ Figure 10 presents this obvious trend of reducing the ratio of the average price between the category of other consumers and households in the past several years. The ratio between the customers belonging to the categories of other consumers and households, which in 2004 amounted to 1.823, was reduced to 1.284 in 2016. With further measures of the regulatory commissions and efficient electricity market functioning it is absolutely certain that the ratio of these prices will continue to converge thus complying with the basic regulatory principles of reflecting costs in price formation.

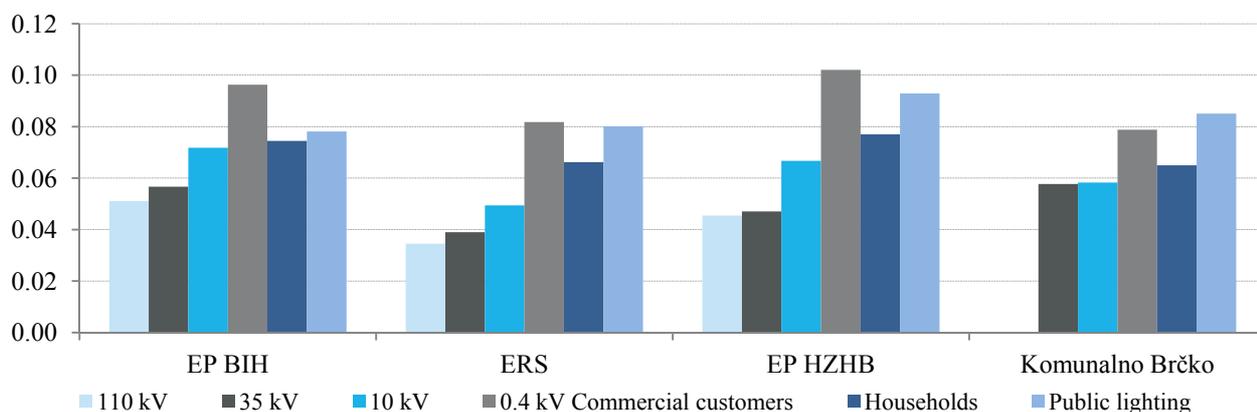
Trends of average selling electricity prices for end customers in Bosnia and Herzegovina are presented in Figure 10, while Figure 11 gives an overview of average electricity prices per public suppliers and customer category in 2016.

In addition to total sale to all end customers in BIH amounting to €764.9 million, including sale achieved by new suppliers in

**Figure 10. Average electricity prices by customer category, excluding VAT (€/kWh)**



**Figure 11. Average electricity prices by public utility excluding VAT (€/kWh)**



the market amounting to some €18.4 million, the companies in the sector made significant income through exports. According to data provided by the Agency for Statistics of BIH, the value of electricity exports in 2016 amounted to €164.8 million, so the total income reached approximately €930 million.

During 2016 there were no changes either of the regulated tariffs for electricity transmission services or the tariff for operation of the Independent System operator in BIH. As of 1 July 2016, the tariff for system services was reduced from 2.56 €/MWh to an amount of 1.92 €/MWh.

The competent regulatory commissions do not set tariff rates for those consumption categories which cannot be regulated any longer pursuant to the adopted and applicable legislation on market opening. Already with the expiry of 2014, regulation of supply tariffs for all customers was abolished except for households and small customers (commercial customers, that is, other customers at 0.4 kV), while practice of regulating tariffs for distribution services was kept. Since 1 January 2015, all customers in BIH have the possibility to choose their suppliers on the market. Customers that do not choose their supplier on the market, may be supplied by public suppliers at public supply prices, while households and small customers may be supplied within the universal service.

The number of electricity customers in BIH during the year increased by 14,340 thus reaching 1,531,501 at the end of the year with the highest increase pertaining to the category of households – 12,364 (Table 6).

As of 1 January 2016, the first cases of supplier switching were registered among the customers connected to the distribution network. Over the months this number increased, so at the end of 2016, 56 customers that changed their traditional supplier were registered, of which 31 belonging to the consumption category at 10 kV and 25 in the category other consumers (commercial customers connected to 0.4 kV). They took over 83.65 GWh in total, of which 10 kV customers took over 82.68 GWh, while other consumers took over 0.97 GWh. These customers were supplied at the end of the year by *Proenergy d.o.o. Sarajevo*, *Petrol BH Oil Company d.o.o. Sarajevo* and *HEP-Trade d.o.o. Mostar*. Furthermore,

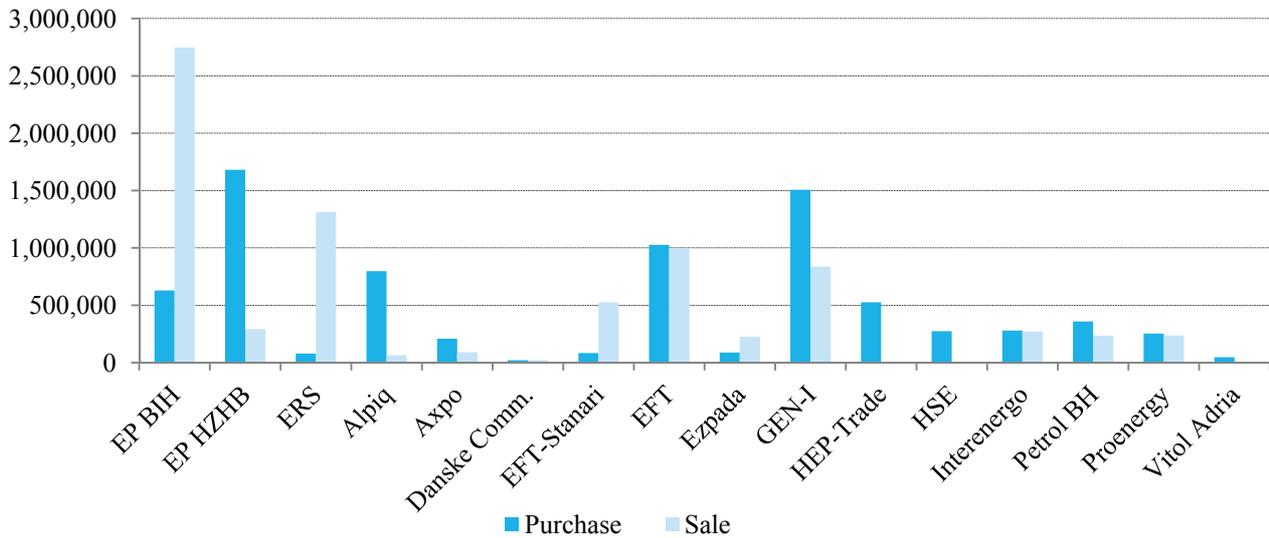
Table 6. Number of electricity customers in BIH

	110 kV	35 kV	10 kV	Other customers	Households	Public lighting	Total
Elektroprivreda BIH	5	66	817	62,438	683,051	4,120	750,497
Elektroprivreda RS	10	34	1,012	34,927	514,942	1,740	552,665
Elektroprivreda HZHB	2	1	178	14,954	176,394	1,622	193,151
Komunalno Brčko		1	36	3,851	30,811	431	35,130
Other suppliers	2		31	25			58
<b>Total</b>	<b>19</b>	<b>102</b>	<b>2,064</b>	<b>116,195</b>	<b>1,405,198</b>	<b>7,913</b>	<b>1,531,501</b>

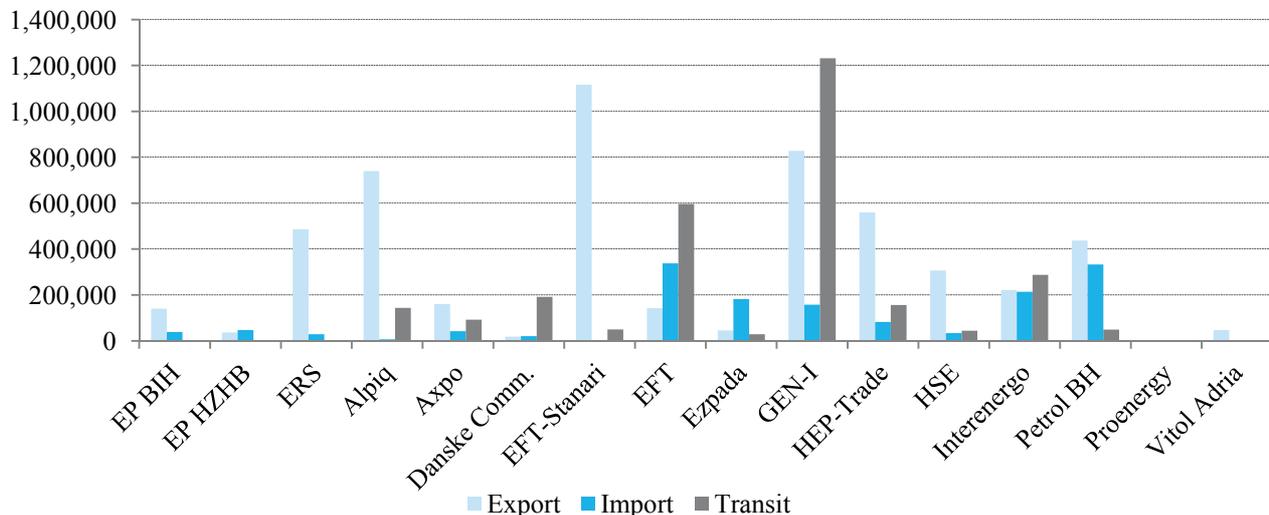
Energy Financing Team d.o.o. Bileća delivered 238.12 GWh to its two customers at the transmission system. To sum up these purchases in 2016, the suppliers that do not fall under the public service obligation provided 321.77 GWh or 2.81 % of total energy taken over by end customers in BIH. During 2016 more than a thousand customers changed the method of supply by changing the contract with their previous traditional suppliers (so-called ‘incumbents’), thus choosing in the open market the supply offer that suited them best. 6,523 GWh (57.1 % of total consumption) was delivered to the customers supplied within the universal service, while 4,909 GWh (42.9 %) was delivered to the customers for whom prices were not regulated.

Trading in the wholesale market in Bosnia and Herzegovina is significantly more dynamic. Although this market has not been institutionalised yet, the result of numerous bilateral contracts is impressive – 16 licensed entities (Figure 12) were active in this

**Figure 12. Overview of trading on the wholesale market in BIH in 2016 (MWh)**



**Figure 13. Overview of cross-border transactions by entities in 2016 (MWh)**



market and traded 7,861.59 GWh which is an increase of 1,403.7 GWh, or 21.7 % in comparison to the previous year. The level of average daily trading amounted to 21.5 GWh and it is considerably higher than a daily trading volume in the neighbouring power exchanges. The commencement of operation of Thermal Power Plan Stanari significantly contributed to an increase in wholesale trading, which produced 1,566 GWh already during the first year of operation.

In 2016 the electricity market was characterised by trends of increased volumes and decreased prices, both in the wholesale and retail markets. The full effects of market liberalisation and regulatory activities had been reflected in this manner.

### ***Cross-Border Trade***

Good connections of the BIH system with the neighbouring power systems enable a high level of electricity exchange with the neighbouring countries. In 2016, exports amounted to 5,287 GWh, which is 53.5 %, or 1,842 GWh more than in the previous year, and mostly a consequence of increased electricity generation. Sixteen entities exported electricity, among which *EFT – Rudnik i Termoelektrana Stanari* with 1,116 GWh was the leader in terms of the export scope, followed by *GEN-I*, *Alpiq Energija BH* and *HEP-Trade* with 828 GWh, 740 GWh and 560 GWh respectively (Figure 13).

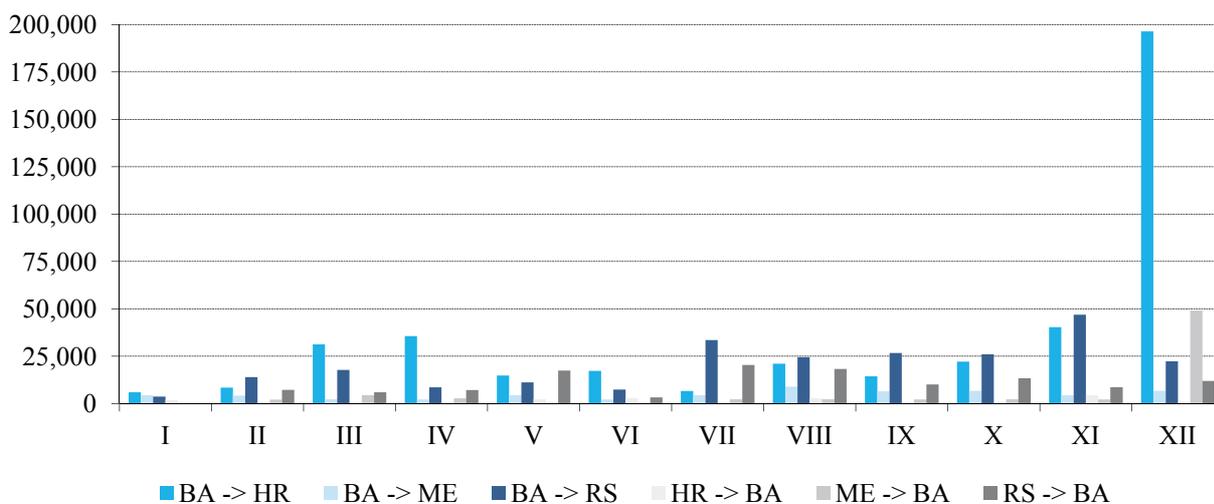
Electricity imports amounted to 1,525 GWh, which is a 16.6 % increase compared to the previous year. Among the 14 entities importing to BIH, the highest imports were achieved by *Energy Financing Team* (338 GWh), *BH Petrol Oil Company* (333 GWh) and *Interenergo* (214 GWh), Figure 13. The largest scope of electricity trading is traditionally achieved with Croatia followed by Serbia and Montenegro (Table 7).

In 2016, registered electricity transits through the BIH transmission system amounted to 2,871 GWh, which is an increase of 432 GWh or 17.7 % in comparison to 2015. Transit flows are of special importance because they are used as the basic element to determine revenues within the *Inter-TSO Compensation Mechanism* (ITC mechanism), which is described in more detail in earlier SERC Reports on Activities. Total revenue achieved by BIH on this basis in the first eight months of 2016 amounted to €538,607, which is

*Table 7. Cross-border trade per border, including registered transits (GWh)*

<i>Country</i>	<i>Export</i>	<i>Import</i>
Croatia	4,780.5	1,761.9
Serbia	1,907.8	1,526.3
Montenegro	1,470.1	1,107.7
<b>Total</b>	<b>8,158.4</b>	<b>4,395.9</b>

**Figure 14. Income on the basis of monthly auctions, per border and direction (€)**



considerably lower in comparison to the same period last year and came as a consequence of an increase of physical exports, which pursuant to the ITC calculation rules reduced total revenues.

In 2016, cross-border capacity allocation through auctions was organised by *the Coordinated Auction Office in South East Europe* (SEE CAO) on the BIH borders with Montenegro and Croatia borders while on the BIH border with Serbia joint auctions of the two operators were organised (Please see Section 3.2). The total revenue of BIH on the basis of cross-border transmission capacity annual auctions for 2017 increased to €1,033,461, thus changing its downward trend. As in the previous period, the highest price was reached on the border with Croatia in the direction from BIH to Croatia amounting to 4,029.5 €/MW, which is three times higher compared to the previous year.

Revenues achieved to date on the basis of auctions for allocation of cross-border transmission capacities on an annual basis are provided in Table 8 while Figure 14 provides an overview of revenues based on monthly auctions per border and direction. The user of all revenues from auctions for allocation of the right to use cross-border capacities as well as revenues achieved by the application of the Inter-TSO Mechanism is Elektroprivna BIH.

*Table 8. Revenues achieved from annual auctions*

<i>Year</i>	<i>Revenue (€)</i>
2012	2,541,570.59
2013	1,041,054.18
2014	1.485.637.81
2015	558,187.06
2016	486,765.21
2017	1,033,460.99

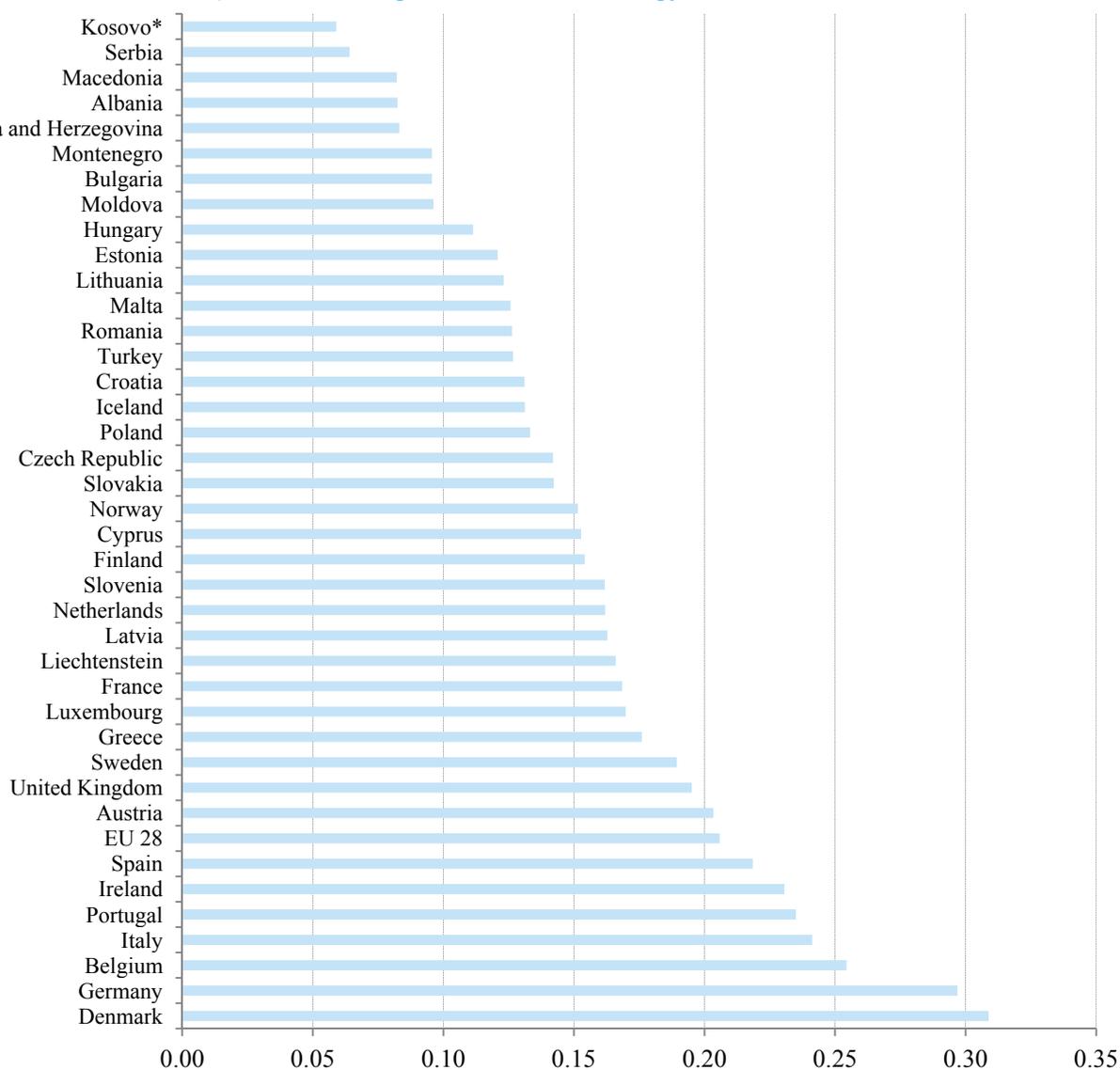
### 3.9 Energy Statistics

Aware of the relevance of objective presentation of data on energy volumes and electricity prices, in 2016 SERC continued to pay particular attention to enhancing its performance in the segment of energy statistics. The key partner in the exchange of energy volumes and data is the Agency for Statistics of Bosnia and Herzegovina, with which SERC has been cooperating for several years, in particular with regard to fulfilling the reporting obligation towards international bodies, in line with prescribed methodologies and reporting dynamics.

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

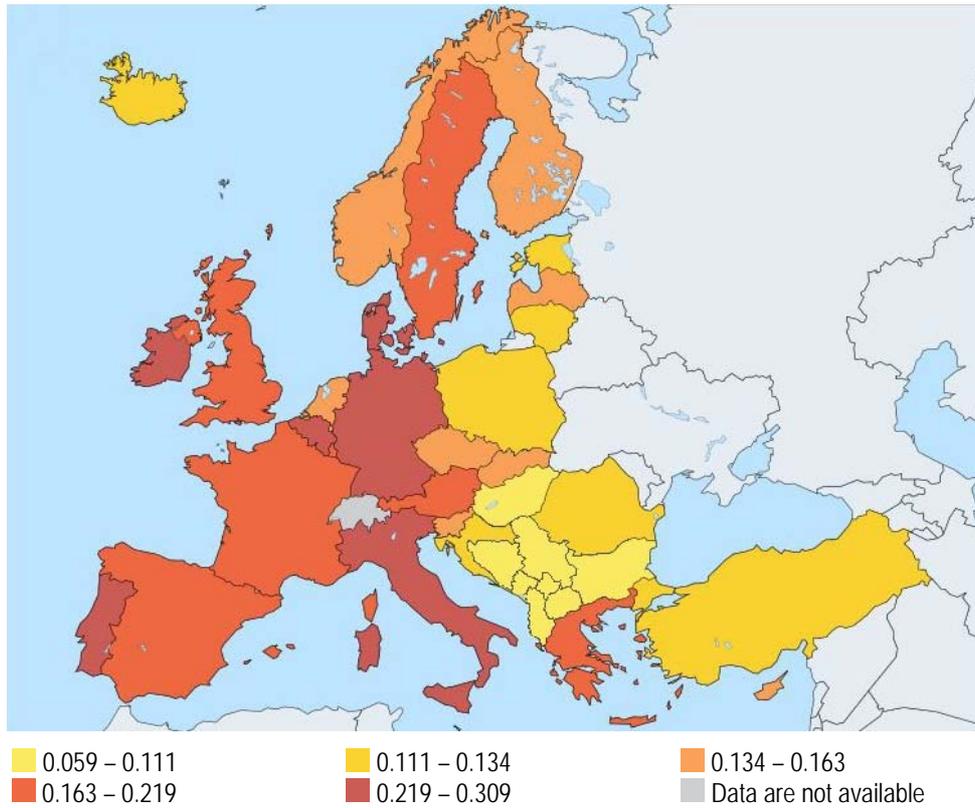


**Figure 15.** Electricity prices expressed in €/kWh for households (annual consumption from 2,500 to 5,000 kWh) in 2016, using Eurostat methodology

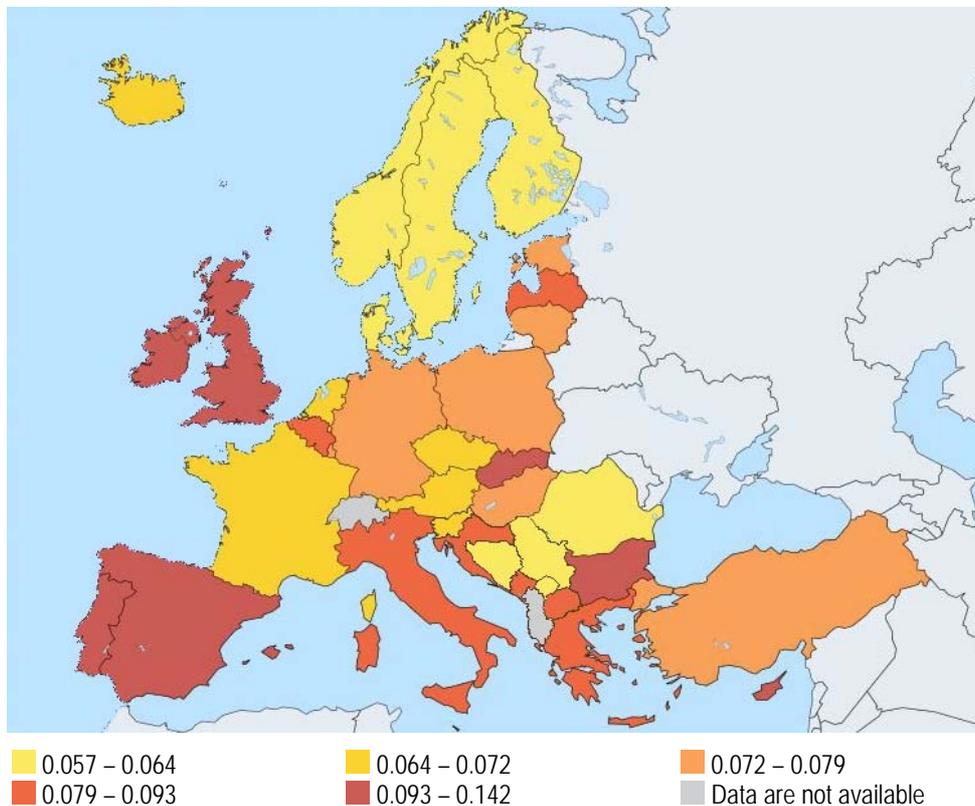


Note: The given amounts include VAT

**Figure 16.** A geographic overview of electricity prices for households (in €/kWh) in 2016, using Eurostat methodology



**Figure 17.** A geographic overview of electricity prices for industrial customers (in €/kWh) in 2016, using Eurostat methodology



The results of the cooperation between the two institutions are recognisable in Eurostat's reports, which include data on electricity prices in Bosnia and Herzegovina since 2011, thus enabling their comparison with EU countries and some countries that are in the EU accession process (Figures 15 – 18).

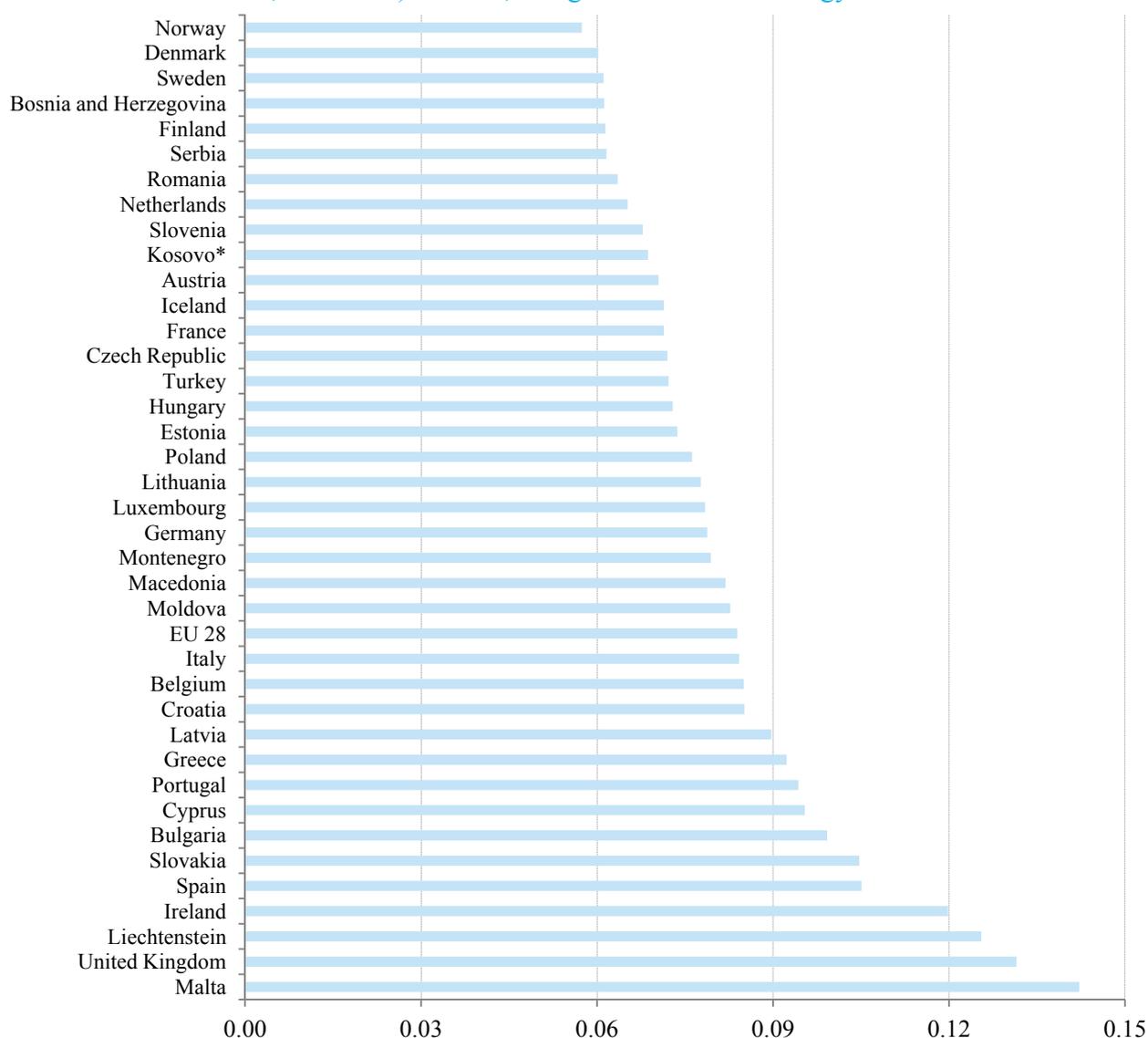
In addition to analysing data on the BIH power sector, SERC continuously collects and analyses data on regional markets, including data on the power exchanges seated in Leipzig, Budapest, Bucharest, Ljubljana, Belgrade and Zagreb (Table 5).

Based on a systematic approach to numerous power indicators, SERC provided quality answers to a number of inquiries by national and international institutions also in 2016 by presenting statistical data.



*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 18.** Electricity prices expressed in €/kWh for industrial customers (annual consumption from 500 to 2,000 MWh) in 2016, using Eurostat methodology



Note: The given amounts do not include VAT

### 3.10 Other Key Activities

In 2016 the State Electricity Regulatory Commission also exchanged data with a number of state institutions including the Council of Ministers of Bosnia and Herzegovina, Ministry of Foreign Trade and Economic Relations, Directorate for European Integrations of the BIH Council of Ministers, Council of Competition of BIH and BIH Agency for Statistics<sup>4</sup>, and prepared different types of information they needed. SERC gave a particular contribution to activities of the Stabilisation and Accession Committee and the Stabilisation and Accession Committee and a Subcommittee on Transportation, Environment, Energy and Regional Development. In line with its legal powers to act in the area of Brčko District BIH as a regulatory authority, through its activities SERC also cooperates with the District Government.

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

#### *Legislative Framework Development*

Bosnia and Herzegovina should have harmonised national legislation with EU legislation in the field of energy by 1 January 2015, with a focus on the content of the Third Energy Package (Please see Attachment D). In this context, from the end of 2012 to January 2014, the project *Development of an EU-acquis-compliant legislative framework in the field of electricity in BIH* was implemented through a technical assistance project of the European Commission.

The final result of the project is a harmonised set of working texts for new laws, and in some cases draft amendments to the existing laws at the national, entity and Brčko District BIH level. Transposition of the applicable EU legislation is organised so as to enable full harmonisation of legislation at all administrative levels in BIH (taking into account their separate competences and regulatory powers) with the EU *acquis* on electricity.

Since December 2015, using the results of the European Commission technical assistance project, a working group comprising experts of the relevant ministries, regulatory commissions and business entities with the significant support of the Energy Community Secretariat, intensively worked on preparing a working text of a new national law which would enable transposition of the Third Energy Package in Bosnia and Herzegovina.

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<sup>4</sup> The State Electricity Regulatory Commission signed Memoranda of Understanding with the BIH Agency for Statistics and Council of Competition of BIH on 19 April 2011 and 28 May 2014 respectively.

Following the mentioned activities, on 13 October 2016, the three relevant ministries and Director of the Energy Community Secretariat signed the *Agreement on the removal of serious and persistent breach of the Treaty establishing the Energy Community in the gas sector*. On the following day, the Ministerial Council of the Energy Community passed a decision on suspension of the previously imposed measures against Bosnia and Herzegovina until 31 March 2017, which is the deadline for adoption of the national law in accordance with the signed Agreement and an Action plan as defined by the Agreement, including the adoption of mutually harmonised entity gas laws.

### **Regulatory Bridge**

In the period June 2015 – October 2016, activities on implementation of regional project *Southeast Europe Regulatory Bridge* were carried out, which was financed by the *United States Agency for International Development (USAID)* and *National Association of Regulatory Utility Commissioners (NARUC)*. Beside the regulator from Bosnia and Herzegovina, regulatory authorities from the following countries also participated: Albania, Armenia, Georgia, Kosovo\*, Macedonia, Serbia and Ukraine.

Within the Project, the energy regulators were provided technical assistance and support to the energy regulators in regulating competitive electricity markets and supervising unbundling and functioning of distribution system operators and suppliers.

In the course of 2016, Regional Regulatory Guidelines were prepared, which identify best practices customised to various stages of market development for regulating the activities of both distribution system operators and competitive electricity suppliers, including the guidelines for efficient market information management and protection of consumer rights. In addition to the Regional Guidelines, draft National Road Maps were prepared, outlining specific regulations, rules or secondary legislation to be drafted or amended in each participant country.

### **Energy Investment Activity**

During 2016, activities were conducted within the project *Energy Investment Activity (EIA)* funded by *United States Agency for International Development (USAID)*. The Energy Investment Activity Project (EIA), with the planned duration from October 2014 to June 2019, is focused on cooperation with and support to all key actors in the energy sector (ministries, regulators, companies etc.). The EIA Project is organised through the following components:

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\* 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.



- Addressing impediments to investment in the energy sector,
- Addressing retail market deficiencies in BiH,
- Achieving energy savings in BiH, using regulatory incentives,
- Expediting progress towards EU integration, and
- Public outreach.

Representatives of the State Regulatory Commission follow activities organised within the Project and participate in implementation of some components, in particular those relating to the regulatory activities. In 2016 SERC expressed particular interest and directly participated in implementation of activities in the field of sector investments, ancillary services, balancing mechanism, integration of renewables, business processes of distribution system operators and data exchange in the sector as well as public relations.

After the successful organisation of the first Energy Summit in BiH in April 2015 whereby a new model of dialogue was established on topical issues in the energy sector, the EIA Project organised in April 2016 the second Energy Summit, this time jointly with GIZ.

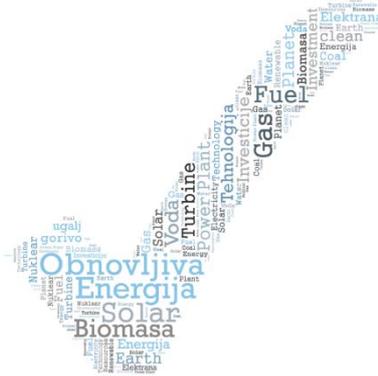
At the second Energy Summit, the focus of discussions was on the future energy path of Bosnia and Herzegovina, challenges of defining and implementing a strategic framework for energy efficiency and renewables, energy sector investment model, retail electricity market and energy efficiency and renewable energy sources.

More than 320 participants attended the interesting plenary sessions, panel discussions, presentations and interactive workshops. The second Energy Summit brought together a number of partners from the national and entity parliaments, ministries and regulatory authorities, power utilities, chambers of commerce, small and medium enterprises, non-governmental organisations and representatives of international organisations and donors active in the sector.

The Summit was held under the auspices of the Ministry of Foreign Trade and Economic Relations, State Regulatory Commission and Entity Regulators.

### ***Promoting Renewable Energy in BiH***

At the beginning of 2016, *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH* (German Agency for International Cooperation) launched the project *Promoting Renewable Energy in BiH* with a view to creating preconditions to increase the use of renewable energy.



The key partners in the project implementation, which will last until the end of 2019, are the respective national and entity ministries and regulators and operators for renewable energy, that is, incentive schemes.

The project provides technical assistance in the field of general improvement of the framework conditions for heat and electricity generation using renewable energy sources (RES), focusing on the use of bioenergy and improvement of technologies for small hydropower plants (up to 10 MW).

The concept of the project defines different areas of intervention, including strategic, legal and regulatory framework, administrative procedures and incentive schemes, innovative technology, capacity building and the development of specific tools. The project is conceived through four areas of intervention:

- General framework conditions for renewable energy sector,
- The development of the bioenergy sector and innovative technologies,
- Improvement of the sector of small hydropower plants,
- Incentive schemes and modes of financing for renewable energy projects.

The long-term nature of the project contributes to further sustainable development of renewable energy sources and necessary diversification of energy sources, thus increasing the national energy security.

The project is conceived so as to ensure full coordination with activities under the *Biomass Energy for Employment and Energy Security Project* of the United Nations Development Program (UNDP) and USAID's *Energy Investment Activity Project*.

### ***Outcomes 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 have been filed since 2009 by any person that has standing to commence an action.

## 4. ACTIVITIES IN INTERNATIONAL INSTITUTIONS

### 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.<sup>5</sup>

In accordance with the expression of interest, the following countries participate in the work of the Energy Community bodies: Austria, Bulgaria, the Czech Republic, Croatia, Cyprus, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, the Netherlands, Poland, Romania, Slovakia, Slovenia, Sweden and the United Kingdom. These twenty 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. Negotiations with Georgia on acquiring status of a Contracting Party were finalised in 2016. The Ministerial Council approved its accession to the Energy Community and it is expected that Georgia will acquire status of a Contracting Party in 2017, following the ratification of the Treaty. In 2016, Belarus filed an application for acquiring observer status.

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 environment, with the implementation of energy efficiency and the utilisation of renewable sources.

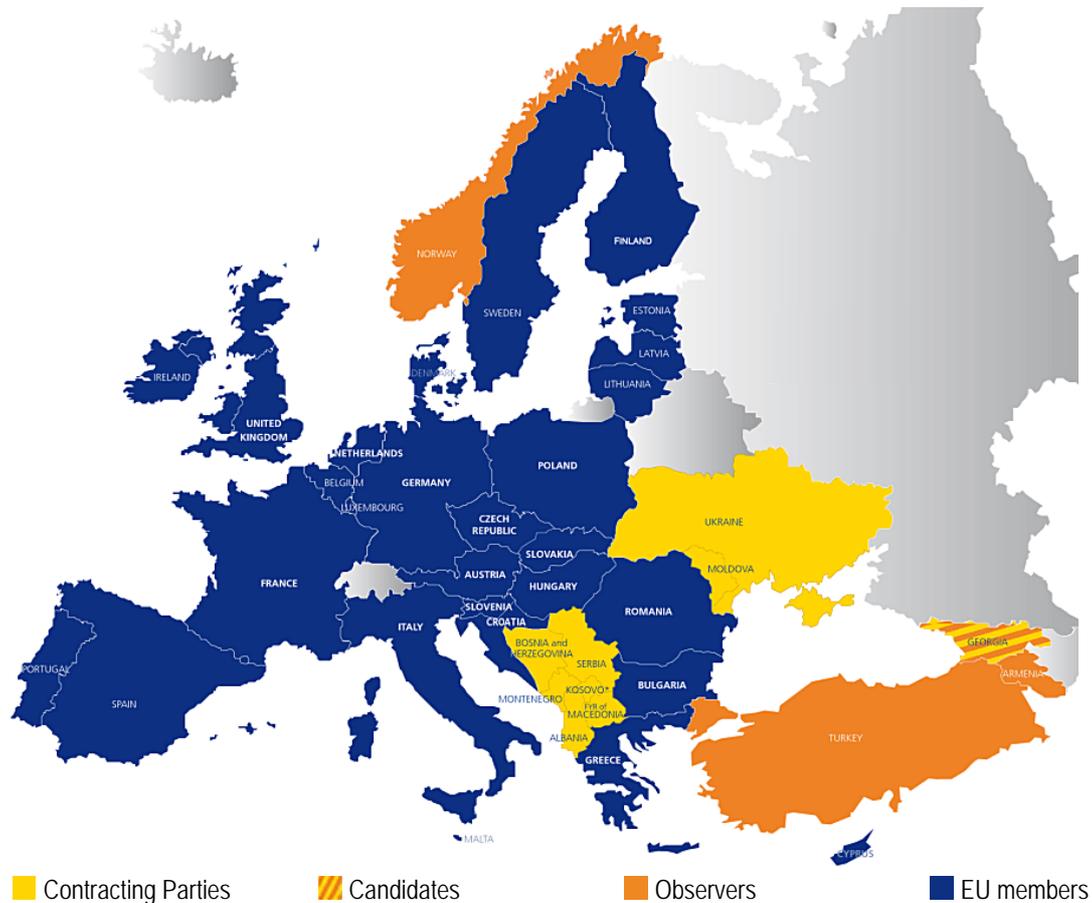
By signing the Treaty, the Contracting Parties from the region are obligated to establish a common electricity and gas market that will operate in accordance with the standards of the EU energy market into which it will integrate. It is to be achieved by gradual transposition of the EU *acquis*, which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

The Treaty establishing the Energy Community is valid until July 2026.

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<sup>5</sup> The list shows the Contracting Parties on December 31, 2015. Moldova and Ukraine have Contracting Party status as of 1 May 2010 and 1 February 2011 respectively.

**Figure 19. 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, Oil Forum and the Secretariat. The role, competence and activities thereof were described in detail in the previous reports of the State Electricity Regulatory Commission.

In 2016, the activities on the legal framework development were continued in the Energy Community, in particular on development and implementation of national laws pertaining to the energy markets. A pan-European character of the Energy Community has been recognised as imperative when defining its future and further enhancement and enlargement. The European Union, which carries out the reform and restructuring of its energy policy by creating the Energy Union, of which the Energy Community is an important part, has a significant impact on its development policy.

The adopted proposals of the report *An Energy Community for the Future* have been implemented. On 25 October 2016, the Secretariat established a *Dispute Resolution and Negotiation Centre*. The implementation of the legal framework and reduction of in-

*Mr. Mirko Šarović, BIH  
Minister of Foreign Trade  
and Economic Relations:  
“In 2016, while holding the  
Energy Community  
presidency-in-office, Bosnia  
and Herzegovina made some  
important steps forward on  
its path towards the  
European Union.”*

*From the opening speech at  
the 14<sup>th</sup> meeting of the  
Energy Community  
Ministerial Council,  
Sarajevo, 14 October 2016*



vestment risks were strengthened through improvement of implementing measures and dispute settlement rules. Furthermore, the establishment of a Parliamentary Plenum strengthened the role of national parliaments with parallel increase in transparency by strengthening the role of civil society and business undertakings in the Energy Community institutions. On 21 June 2016, the inaugural *Civil Society Day* brought together 24 non-governmental and civil society organisations from 11 countries at the premises of the Secretariat, with participation of academic and international financial institutions, government ministries as well as the European Parliament and Commission.

On 14 October 2016, the Ministerial Council updated the *acquis* on environment to ensure the application of its latest versions in the Energy Community. With this, the *acquis* included Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment amended by Directive 2014/52/EU, and Directive (EU) 2016/802 relating to a reduction in the sulphur content of certain liquid fuels with Commission Implementing Decision (EU) 2015/253. The *acquis* on environment has been extended to include Directive 2001/42/EU on the assessment of the effects of certain plans and programmes on the environment and Directive 2004/35/EU on environmental liability with regard to the prevention and remedying of environmental damage which was amended by Directive 2006/21/EC, Directive 2009/31/EC and Directive 2013/30/EU. As a first step towards its full application in the Energy Community, the Ministerial Council adopted a non-binding Recommendation on the implementation of Regulation (EU) 525/2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change. A list of priority infrastructure projects enabling integration of a pan-European energy market was adopted by a separate decision.

The significant support to the energy market development is provided by the measures adopted by the Prime Ministers of Albania, Bosnia and Herzegovina, Kosovo\*, Macedonia, Montenegro and Serbia on the second Summit on the Western Balkans in the framework of the ‘Berlin process’ (WB6) held on 27 August 2015. In the area of electricity, they primarily refer to removal of shortcomings in primary and secondary legislation, development of organised wholesale and balancing markets, market allocation of cross-border capacities, deregulation of prices, unbundling of commercial activities from those characterised by natural monopoly and strengthening the regulatory independence.

Within this process, representatives of transmission system operators, power exchanges, regulatory authorities and ministries signed a Memorandum of Understanding in Vienna on 27 April 2016 which set out general principles of cooperation as well as concrete actions to develop the regional electricity market.

The Third Summit, held in Paris on 4 July 2016, emphasised the need for closer cooperation at the regional level to allow integration of the West Balkans markets into the pan-European market. On this occasion, a Road Map on the electricity market was agreed and it was announced that the future EU financial support would depend on progress of the implementation of agreed measures. The focus is on the removal of the existing legislative and regulatory obstacles and enhancing the institutional structure necessary for the functioning of the market in line with the Treaty establishing the Energy Community. The regional measures consist of institutional organising of the markets (establishing power exchange) and their coupling, a regional balancing market and regionally coordinated capacity calculation and cross-border capacity allocation. At the national level the focus is on the removal of national obstacles by creating the appropriate market and regulatory framework.

The scope of the Berlin process (WB6) was extended at the Paris Summit by the signing of the *Sustainability Charter* by which the Western Balkans countries accepted to implement a range of measures in the field of energy efficiency, improvement of the sustainability of energy systems, fostering climate action and transparency of sustainable energy markets.

The Energy Community priorities in 2017 include:

- Enhancing integration of regional energy sectors and improving their sustainability based on the commitments under the Berlin process which are to be included in the Treaty establishing the Energy Community, and
- Promoting and finalising discussions on amendments to the Treaty, with a focus on better implementation, sustainability and truly integrated pan-European market based on equal rights and obligations.

### ***Bosnia and Herzegovina and the Energy Community***

By active participation in the Energy Community, Bosnia and Herzegovina confirms its commitment to the energy sector reforms, energy market liberalisation and harmonisation of its policies with those of EU member states.

Bosnia and Herzegovina held the Energy Community Presidency in Office in 2016, during which the reforms of the Community in line with the recommendations from the report *An Energy Community for the Future* continued while a number of activities were implemented regarding consistent implementation of the *acquis*, that is, legal framework of the Energy Community and the necessary improvement of security of supply and environmental protection.

It is obvious that in Bosnia and Herzegovina additional efforts should be made at different administrative levels to transpose and implement the Energy Community *acquis*. The deadlines for the

fulfilment of numerous obligations of Bosnia and Herzegovina have already expired, with a relatively short period of time left for the remaining obligations (Attachment D). This is also indicated by the infringement cases initiated by the Energy Community Secretariat (Attachment E). In this process it should be taken into account that the Secretariat closed Case ECS-4/14 in April 2016, after Bosnia and Herzegovina had submitted its National Renewable Energy Action Plan adopted at the 50<sup>th</sup> session of the BIH Council of Ministers held on 30 March 2016.

### ***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 implementation of different projects supporting the Energy Community development, and in particular, through proactive involvement in surveys which were planned and implemented by different groups with the wider thematic spectrum bringing together energy regulators from the region and the European Union.

SERC activities in the Energy Community continue to focus on the Energy Community Regulatory Board (ECRB), which was established on 11 December 2006 in Athens. Since then SERC actively participates in its activities, representing the interests of Bosnia and Herzegovina. The chairmanship of the ECRB Customers and Retail Markets Working Group since 2007 contributes to the affirmation of BIH.

In 2016, during which the Regulatory Board held three meetings, it gave a significant contribution to the creation of Energy Community policies in the field of regulatory initiatives in promoting network investments, treating interconnections between the Energy Community Contracting Parties and European Community Member States and enhancing regulatory independence. In the previous year, the ECRB continued the joint activities with the Agency for the Cooperation of Energy Regulators (ACER), the Council of European Energy Regulators (CEER) and the Mediterranean Energy Regulators (MEDREG) as well as the European Network of Transmission System Operators for Electricity (ENTSO-E) and the European Network of Transmission System Operators for Gas (ENTSO-G).

The ECRB organises a considerable part of its activities through several working groups (Electricity Working Group, Gas Working Group and Customers and Retail Markets Working Group), with the support of the relevant Energy Community Secretariat Section.



## 4.2 Energy Regulators Regional Association – ERRA



The *Energy Regulators Regional Association (ERRA)* is an organisation composed of independent energy regulatory bodies from the Central European and Eurasian region with affiliates from Africa, Asia, Middle East and America. Amendments to the ERRA Constitution made in 2015 removed barriers for joining of regulators from new regions and allowed active participation of all members. ERRA members come from 34 countries in addition to the Regional Regulatory Association of West Africa (Figure 20).

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 held in May 2010, the two entity regulatory commissions, the Regulatory Commission for Energy in the Federation of BiH and the Regulatory Commission for Energy of Republika Srpska, became ERRA associate members.

SERC representatives actively participate in the work of the General Assembly, Investment Conference and the ERRA Presidium in which a SERC Commissioner was elected a member for a two-year term in March 2014. Commitment of the representatives of the State Electricity Regulatory Commission was observed also in

**Figure 20. ERRA membership**



the work of standing committees and working groups with a particular emphasis on the Customers and Retail Markets Working Group, the Standing Tariff/Pricing Committee and the Standing Licensing/Competition Committee. The chairmanship of this Committee since 2010 contributes to the affirmation of Bosnia and Herzegovina in ERA.

In addition to active participation in ERA bodies, the State Electricity Regulatory Commission fulfils its role as a member of this regional Association by providing relevant information on the power sector and regulatory practice in BIH.

The historical evolution of topics of interest to the members is evident within the ERA institutions. The widely present restructuring of the energy sector and markets was the reason for choosing competition-oriented sustainable solutions as the topic in focus of regulatory authorities' interest and activities.

### 4.3 Mediterranean Energy Regulators – MEDREG

In 2016 the Mediterranean Energy Regulators (MEDREG) solemnly marked its 10th anniversary. MEDREG started in May 2006 as a voluntary working group to promote cooperation among energy regulators from the countries of the Northern, Southern and Eastern shores of the Mediterranean basin and became a permanent regional organisation in November 2007. The Association 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 (Figure 21).



**Figure 21.** Geographic scope of MEDREG



The main objective of the Association is the promotion of clear, stable and harmonised legal and regulatory frameworks in the Mediterranean region with the aim of facilitating investments in energy infrastructures and supporting market integration. Towards this goal, MEDREG promotes a permanent exchange of know-how, data collection and diffusion of expertise through comprehensive studies, recommendation reports and specialised training sessions in the field of energy regulation. Consumer protection remains at the heart of MEDREG's priorities with awareness-raising activities among members, with the aim of increasing access to information and addressing the particular situation of vulnerable consumers.

Its organisation is structured around the General Assembly, the Secretariat seated in Milan and five working groups: (1) on Institutional Issues, (2) on Electricity, (3) on Gas (4) on Environment, Renewable Energy Sources and Energy Efficiency and (5) Customer Issues.

The representatives of SERC directly participate in the work of the General Assembly, while the contribution to the activities of Working Groups is provided by the use of various communication tools and provision of required information and comments on draft documents.

#### **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 250 regulatory authorities on six continents are included in the ICER's membership through 11 regional regulatory associations and two national energy regulatory authorities (Figure 22). SERC is an ICER member through ERRA and MEDREG.

ICER's work is focused around several key areas, in line with the topics defined during each World Forum on Energy Regulation (WFER), the leading international conference on energy regulation, held once every three years. The sixth World Forum on Energy Regulation held in May 2015 in Istanbul identified security of supply, sustainability, competitiveness and good regulatory practices as the priorities over the following three-year period and established four separate virtual working groups accordingly. The next World Forum on Energy Regulation will be held in Mexico, in 2018.

ICER continues its activities in its *Women in Energy* initiative launched in October 2013. The goal of this global initiative of



**Figure 22. ICER Members**



energy regulators is to help the advancement of women in energy, through practical tools.

In 2013, ICER launched its Chronicle as a means to further promote ICER goals of enhanced exchange of regulatory research and expertise. Since then a SERC employee is engaged as a member of the Editorial Board of this professional magazine. The ICER Chronicle is a publication issued twice a year in electronic format, gathering articles on regulatory topics.

SERC participates in ICER’s activities and provides support in different ways, including the provision of responses regarding different activities and surveys, thus enabling an insight into and exchange of practice in the area of relevance to regulatory activities.

#### **4.5 Council of European Energy Regulators – CEER**



The Council of European Energy Regulators (CEER) is a non-profitable association bringing together energy regulators. Its members and observers are the independent statutory bodies responsible for energy regulation at national level. CEER brings together 35 national regulatory authorities from European Union Member States, European Free Trade Association (EFTA) and EU accession countries including Contracting Parties of the Energy Community Treaty. CEER is at the forefront of efforts to foster competitive energy markets and empower consumers. Working collectively through CEER, national regulatory

authorities develop forward thinking proposals at EU level, spreading best practice and delivering solutions back within NRAs.

In late 2015, the Council of European Energy Regulators opened its doors to the Energy Community Contracting Parties. In December 2016, the CEER General Assembly admitted SERC as an Observer, with effect from 1 January 2017.

As Observers, SERC staff would be welcome to participate in CEER's working groups and to attend the CEER General Assembly meetings. Furthermore, as a CEER Observer, SERC will have access to the CEER successful and established regulatory network and cooperation tools, and the possibility of a deep understanding of European Union energy policies and practices. In this regards, participation in the Council of European Energy Regulators is also helpful on the path towards EU membership, and the full obligations this will entail in terms of implementation of the *acquis* in the field of energy.

*Lord Mogg, CEER President: "As the European association of energy regulators, one of our strengths is that we are the regulatory practitioners of Europe's energy laws. We are delighted to share with SERC our expertise implementing EU energy laws and solving together regional energy market challenges."*

*From the welcome speech on the occasion of SERC admission to CEER, Ljubljana, 13 December 2016*

## 5. AUDITING REPORT

Pursuant to the *Law on Transmission of Electric Power, Regulator and System Operator of BIH*, SERC provides funding from its own revenues. The basic revenue of SERC in 2016 was the regulatory fee paid by holders of licences for performance of the activity of electricity transmission, independent system operator, international electricity trading and supply of customers with electricity and electricity distribution in the Brčko District BIH. 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 an excess of revenues over expenditures.

Financial dealings of the State Electricity Regulatory Commission cover 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,
- regular monitoring of the Financial Plan implementation 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, authorised institutions and the public.

The final outcome of the aforementioned activities and adopted decisions are financial reports presenting business results at the end of a business year. Financial reports are audited every year in order to have an independent and impartial audit of the stated business results as well as to check the compliance of these procedures with the applicable regulations.

The audit of SERC financial reports for the the first quarter of 2016 was performed by the Auditing, Accounting and Consulting Company REVIK d.o.o. Sarajevo with which a contract was concluded through a competitive request for quotations.

While performing an audit pursuant to the International Standards on Auditing, the auditors collected evidence on amounts and other data as published in the financial reports to be confident beyond doubt that they did not include any relevant material mistakes. In addition to determining the objectivity of the financial reports as a whole, the performed audit included concurrent evaluation of accounting policies applied and relevant estimates of the SERC management.

*“In our opinion, the financial reports show realistically and objectively the financial standing of the State Electricity Regulatory Commission (SERC) on 31 December 2015 in all materially relevant aspects as well as its business results and changes in permanent funds and cash flow for the year which ended at that point, in accordance with the International Financial Reporting Standards (IFRS).”*

*REVIK, 17 March 2016*

Based on the collected data, the independent auditor gave a positive assessment of SERC financial reports for 2015. It is the opinion of the independent auditor that the presentation of financial reports, recognising and measuring of transactions and business events, objectively and realistically present the state of assets, liabilities, capital and financial results of business performance.

With the mentioned opinion, SERC maintained the highest audit opinion for compliance of its financial reports with the international accounting standards and legal regulations, which SERC was given in the previous periods by external auditors, including the opinions by the Office for Auditing of the Institutions of Bosnia and Herzegovina.

No irregularities were found through *ex-post* controls of financial transactions. This confirmed the efficiency of the established financial management and internal control system enabling the prevention or identification of possible mistakes in order to protect the property from loss caused by negligence or poor management.

In accordance with the applicable legal regulations, at the end of 2016, SERC published a public invitation for bids for auditing of financial reports based on which a contract for the mentioned services was concluded for the forthcoming two-year period.

Through external auditing, SERC ensures an independent and reliable report on the use of property and management of incomes and expenditures. The revised annual financial report is published by the State Electricity Regulatory Commission on an annual basis with the aim of providing information on its financial standing and business results to interested persons and the general public. Audited financial reports for 2015 were published in the Official Gazette of BIH, 28/16 and on the SERC internet site.



## 6. MAIN ACTIVITIES IN 2017

The State Electricity Regulatory Commission will continue its activities on providing the conditions for free trade and unhindered electricity supply in accordance with the previously defined quality standard to the benefit of 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 2017, 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 harmonisation 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 BIH*.

All existing modalities of mutual follow up and harmonisation of activities will be used also in 2017 in relationships with the Regulatory Commission for Energy in the Federation of BIH and the Regulatory Commission for Energy of 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 energy data, SERC will remain a reference source and an active generator of these data. To this end, SERC will follow developments of EU rules and comply with the Energy Community agenda continuing its cooperation 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 focus on:

- Setting tariffs in line with SERC competencies,
- Issuance of licences,
- 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 acts,
- Monitoring the procurement of ancillary service and provision of system service and balancing of the BIH power system, and, on a needs basis, continuing the development of a model for these services,

- Fostering a higher degree of integration of the national electricity market with a particular emphasis on the efficient functioning of retail and wholesale and markets,
- Development of rules regulating connection of users to the transmission system,
- Capacity building in terms of the fulfilment of international obligations with regard to regulatory reporting,
- Approving and monitoring rules developed by the Independent System Operator in Bosnia and Herzegovina, Elektroprenos BIH and Komunalno Brčko,
- Approving the *Indicative Generation Development Plan for the Period 2018 – 2027* and approving the *Long-Term Transmission Network Development Plan* for a ten-year period as well as an *Investment Plan of Elektroprenos BIH*,
- Monitoring the implementation of the Inter-TSO Compensation Mechanism (ITC mechanism) and operation of the Coordinated Auction Office in South East Europe (SEE CAO),
- Regulatory activities regarding the European network codes,
- Sharing information on regulatory practice with the regulated entities and the public, and
- Performing other tasks within competences vested in 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 accordance with competences vested in SERC under law.

Taking into account the fact that under the *Treaty establishing the Energy Community* Bosnia and Herzegovina is obligated to transpose the new rules of the European Union on the internal energy market ('Third Package') into its national legislation and apply them in practice, SERC will contribute to the legal framework development in line with its competences and through optimal coordination with other stakeholders.

The implementation of the power sector reform in Bosnia and Herzegovina, harmonisation of secondary legislation and efficient coordination among the bodies participating in its drafting and development is in the interest of all stakeholders. The aim is to create a clear and stable legal framework based on the European directives and rules on the internal electricity market.

In this context, SERC is planning to continue 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 as specified in the *BIH 2016 Report of the European Commission*.

In line with its competences, the State Electricity Regulatory Commission will contribute to implementation of recommendations of meetings of the BIH Stabilisation and Association Committee and Subcommittee on Transport, Energy, Environment and Regional Development. As one of the institutions competent for transposition and implementation of the *acquis*, SERC will provide its contribution to the answers to the Questionnaire of the European Commission for the preparation of the Opinion on the BIH Application for the membership of the European Union, in particular to the questions from Chapter 15: Energy, Chapter 21: Trans-European networks, Chapter 28: Consumer and Health Protection and some issues under Economic Criteria.

SERC will 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 as specified in the Conclusions of the BIH Council and *Annual Implementation Report of the Acquis under the Treaty establishing the Energy Community*. Furthermore, SERC will fully contribute to the implementation of measures in the energy sector as agreed at the Third Western Balkans Summit within the Berlin process.

In 2017, the multiannual USAID project *Energy Investment Activity* (EIA) will continue and the State Electricity Regulatory Commission will follow its activities and participate in implementation of some components relating to the regulatory activities. The participation in the GIZ project *Promoting Renewable Energy in Bosnia and Herzegovina* will also continue. Furthermore, SERC plans to actively participate in the Third Energy Summit in BIH, which is planned in spring 2017 within the EIA and GIZ project.

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

- ECRB – the Energy Community Regulatory Board (including the Electricity Working Group, Gas Working Group and Customers and Retail Markets Working Group),
- ERRA – the Energy Regulators Regional Association (including the Standing Licensing/Competition Committee, Standing Tariff/Pricing Committee and the Customers and Retail Markets Working Group),
- MEDREG – the Mediterranean Energy Regulators (including working groups on institutional issues; electricity; gas; customers and environment, renewable energy sources and energy efficiency),
- ICER – International Confederation of Energy Regulators,
- CEER – Council of European Energy Regulators.

Furthermore, SERC will continue to follow up the work of the Agency for the Cooperation of Energy Regulators (ACER), and depending on the legal framework development in BIH consider the possibility to directly participate in activities of this body.



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

(Source: ISO BIH, Elektroprenos 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 4,351.88 MW, with 2,083.50 MW and 2,065 MW installed in major hydro power plants and thermal power plants respectively. Installed capacity of small hydro, wind, solar and biofuel power plants amounts to 112.15 MW, while installed capacity of industrial powers plants amounts to 91.23 MW.

Hydro power plants	Capacity of power unit (MW)	Total installed capacity (MW)
Trebinje I	2×54+63	171
Trebinje II	8	8
Dubrovnik (BIH+HR)	126+108	234
Čapljina	2×210	420
Rama	80+90	170
Jablanica	6×30	180
Grabovica	2×57	114
Salakovac	3×70	210
Mostar	3×24	72
Mostarsko blato	2×30	60
Peć-Mlini	2×15.3	30.6
Jajce I	2×30	60
Jajce II	3×10	30
Bočac	2×55	110
Višegrad	3×105	315
Ustiprača	2×3.45	6.9

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
STANARI	300	283

### Basic Data on the Transmission System

#### *transmission lines*

Nominal voltage of transmission lines	Length (km)
400 kV	864.73
220 kV	1,520.38
110 kV	3,903.75
110 kV – cable line	32.08

#### *interconnections*

Nominal voltage of transmission lines	Number of interconnectors
400 kV	4
220 kV	10
110 kV	23
<i>Total</i>	<i>37</i>

#### *substations*

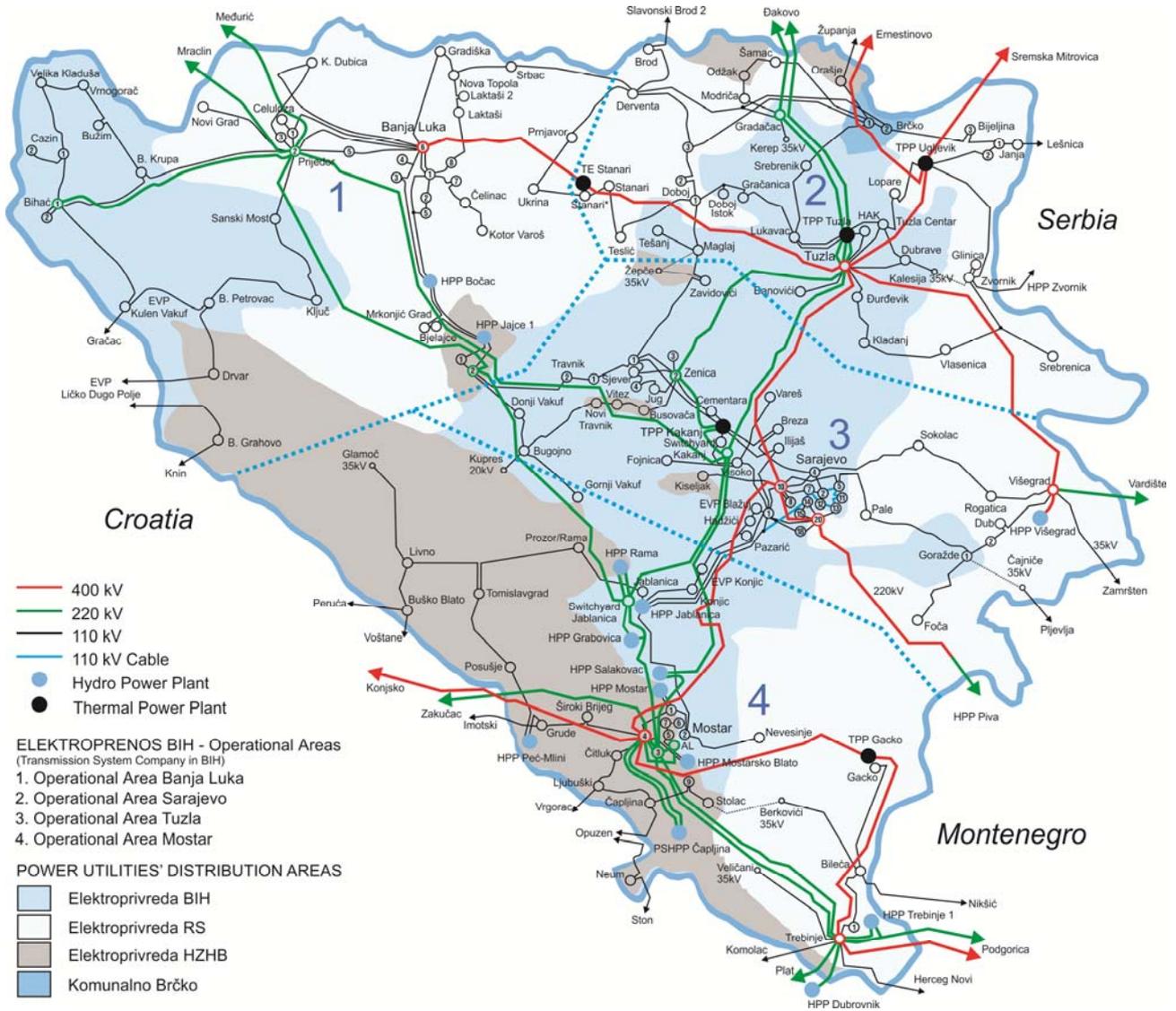
Type of substation	Number of substations	Installed capacity (MVA)
TS 400/x kV	10	6,087.5
TS 220/x kV	8	1,423.0
TS 110/x kV	132	5,248.0

#### *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	237	5,636.5



**ATTACHMENT B: Map of the Power System of Bosnia and Herzegovina with Operational Areas of Elektroprenos BIH and Distribution Areas of Public Power Utilities (31 December 2016)**





## ATTACHMENT C: Basic Power Indicators of Bosnia and Herzegovina

(GWh)

Year 2016	EP BIH	ERS	EP HZHB	Komunalno Brčko	Other entities	BIH
Generation in hydro power plants	1,395.40	2,498.19	1,540.38		35.41	5,469.39
Generation in thermal power plants	5,780.27	3,261.70			1,565.94	10,607.91
Generation in small and industrial PPs	68.99	55.02			307.63	431.64
<b>Generation</b>	<b>7,244.66</b>	<b>5,814.91</b>	<b>1,540.38</b>		<b>1,908.99</b>	<b>16,508.94</b>
Distribution consumption	4,548.29	3,721.07	1,364.62	270.08	83.65	9,987.72
Transmission losses						333.30
Large customers	458.05	281.29	1,503.02		226.59	2,468.94
PPs self-consumption and pumping		11.87	51.73		11.53	75.13
<b>Consumption</b>	<b>5,006.34</b>	<b>4,014.23</b>	<b>2,919.37</b>	<b>270.08</b>	<b>321.77</b>	<b>12,865.10</b>

Year 2015	EP BIH	ERS	EP HZHB	Komunalno Brčko	BIH
Generation in hydro power plants	1,436.28	2,166.12	1,823.14		5,425.54
Generation in thermal power plants	5,413.40	3,298.66			8,712.06
Generation in small and industrial PPs	160.68	93.55	16.03		270.26
<b>Generation</b>	<b>7,010.36</b>	<b>5,558.33</b>	<b>1,839.17</b>		<b>14,407.86</b>
Distribution consumption	4,542.81	3,661.53	1,376.42	265.38	9,846.14
Transmission losses					359.37
Large customers	449.56	159.31	1,763.43*		2,372.30
PPs self-consumption and pumping		13.96	13.90		27.86
<b>Consumption</b>	<b>4,992.37</b>	<b>3,834.79</b>	<b>3,153.75</b>	<b>265.38</b>	<b>12,605.66</b>

\* Including the amount of 861.86 GWh which Aluminij and B.S.I. purchased as eligible customers

Year 2014	EP BIH	ERS	EP HZHB	Komunalno Brčko	BIH
Generation in hydro power plants	1,542.61	2,522.09	1,755.81		5,820.52
Generation in thermal power plants	5,786.99	3,133.66			8,920.65
Generation in small and industrial PPs	188.97	82.39	17.31		288.67
<b>Generation</b>	<b>7,518.57</b>	<b>5,738.14</b>	<b>1,773.12</b>		<b>15,029.84</b>
Distribution consumption	4,392.55	3,526.02	1,310.79	251.65	9,481.01
Transmission losses					304.46
Large customers	442.76	155.87	1,811.57*		2,410.20
PPs self-consumption and pumping		14.12			14.12
<b>Consumption</b>	<b>4,835.31</b>	<b>3,696.01</b>	<b>3,122.37</b>	<b>251.65</b>	<b>12,209.79</b>

\* Including the amount of 755.93 GWh which Aluminij and B.S.I. purchased as eligible customers

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
<b>Generation</b>	<b>7,554.55</b>	<b>6,385.01</b>	<b>2,362.99</b>		<b>16,302.55</b>
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 and pumping		13.26	8.74		22.00
<b>Consumption</b>	<b>4,849.72</b>	<b>3,706.97</b>	<b>3,400.71</b>	<b>258.14</b>	<b>12,558.64</b>

\* Including the amount of 884.94 GWh, which Aluminij 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
<b>Generation</b>	<b>6,569.83</b>	<b>5,127.51</b>	<b>1,237.19</b>		<b>12,934.54</b>
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
<b>Consumption</b>	<b>4,786.52</b>	<b>3,683.94</b>	<b>3,583.10</b>	<b>262.54</b>	<b>12,624.24</b>

\* Including the amount of 910.54 GWh, which Aluminij purchased as an eligible customer



## ATTACHMENT D: Energy Community *Acquis*

The *acquis*, that is, the Energy Community legal framework focuses on directives and regulations from the Third Energy Package providing for common rules for internal electricity and gas markets and regulating cross-border trade. On several occasions, the initial set of the Energy Community rules from 2005 was innovated by new directives and regulations and supplemented by rules on cross-border trade, as well as rules in the areas of security of supply, environment, competition, renewable energy sources, energy efficiency, infrastructure, minimum oil stocks and statistics as well as transparency, that is, obligation to report data on electricity markets.

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, security of supply, environment, competition, renewable energy sources, energy efficiency, oil, statistics and infrastructure. The general deadlines for transposition into national legislation and implementation of EU regulations and directives are provided in brackets.

### *Acquis on Electricity*

- Commission Regulation (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council (deadline: 24 Dec 2015),
- Regulation (EU) No 838/2010 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 (deadline: 1 January 2014),
- 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 (deadline: 1 January 2015, except for Articles 9(1), 9(4) and 11 for which the deadlines are 1 June 2016, 1 June 2017 and 1 January 2017 respectively),
- Regulation (EC) No 714/2009 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 (EC) No 1228/2003 (deadline: 1 January 2015).

### *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 (deadline: 1 January 2015, except for Articles 9(1), 9(4) and 11 for which the deadlines are 1 June 2016, 1 June 2017 and 1 January 2017 respectively),
- Regulation (EC) No 715/2009 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 (EC) No 1775/2005 (deadline: 1 January 2015).

### *Acquis on Security of Supply*

- 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 (deadline: 31 December 2009),
- Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply (deadline: 31 December 2009).

### *Acquis on Environment*

- Directive (EU) 2016/802 of the European Parliament and of the Council of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels and Commission Implementing Decision (EU) 2015/253 of 16 February 2015 laying down the rules concerning the sampling and reporting under Council Directive 1999/32/EC as regards the sulphur content of marine fuels (deadline: 30 June 2018),
- Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU (deadline: 1 January 2019),
- 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) (deadline: 1 January 2018),
- Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, as amended by Directive 2006/21/EC, Directive 2009/31/EC and Directive 2013/30/EU (deadline: 1 January 2021),
- 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 (deadline: 31 December 2017),
- Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (deadline: 31 March 2018),
- Article 4(2) of the European Community Council Directive 79/409/EEC of 2 April 1979 on conservation of wild birds (deadline: 1 July 2006).

The *acquis* on environment shall be implemented insofar as they affect network energy. According to Article 13 of the Treaty, the Contracting Parties recognise the importance of the Kyoto Protocol and shall endeavour to accede to it.

*Continued on the next page* ⇨

⇒ Continuation from the previous page

#### *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 European Community:

- Prevention, restriction or distortion of competition,
- Abuse of dominant position,
- Any state 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 European 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 (deadline: 1 January 2014).

National targets for the share of energy from renewable energy sources in total gross consumption in 2020 were defined for the Contracting Parties by the Ministerial Council Decision of 18 October 2012 (2012/04/MC-EnC).

#### *Acquis on Energy Efficiency*

- Directive 2012/27/EU of the 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 (deadline: 15 October 2017),
- Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (deadline: 30 September 2012),
- Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products (deadline: 31 December 2011),
- 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 (deadline: 31 December 2011).

#### *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 (deadline: 1 January 2023).

#### *Acquis on Statistics*

- Commission Regulation (EU) No 431/2014 of 24 April 2014 amending Regulation (EC) No 1099/2008 of the European Parliament and of the Council on energy statistics, as regards the implementation of annual statistics on energy consumption in households (deadline: 31 December 2016),
- Commission Regulation (EU) No 147/2013 of 13 February 2013 amending Regulation (EC) No 1099/2008 of the European Parliament and of the Council on energy statistics, as regards the implementation of updates for the monthly and annual energy statistics (deadline: 31 December 2013),
- 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 (deadline: 31 December 2013),
- Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics (deadline: 31 December 2013).

#### *Acquis on infrastructure*

- Regulation (EC) No 347/2013 of the European Parliament and Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 (deadline: 31 December 2016).

When defining the *Acquis*, the Ministerial Council makes certain adaptations of EU rules to the institutional framework of the Energy Community, taking into account time limits in the region. The Ministerial Council also 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.

*Note: Texts of EU rules provided in this appendix are available on the internet site of the State Electricity Regulatory Commission ([www.derk.ba](http://www.derk.ba)).*

## ATTACHMENT E: Infringement Cases: Energy Community – Bosnia and Herzegovina

31 December 2016

### Case ECS-1/10

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 BIH was adopted and the State Aid Council established at the end of the same year, the position of the Energy Community Secretariat is that its effective implementation was still missing. The Secretariat announced that it would monitor the implementation of the Law while the infringement case would be closed with the commencement of implementation of state aid rules in the energy sector.

### Case ECS-8/11

Case ECS-8/11, initiated by an Opening Letter on 7 October 2011 for non-compliance 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 following a new reply submitted the case to the Ministerial Council for decision by way of a Reasoned Request on 21 May 2013. On 23 September 2014, the Ministerial Council of the Energy Community emphasised that breaches by BIH in implementing the binding EU directives were serious and persistent and tasked the Energy Community Secretariat to assist BIH in preparing the required legislation. On 21 October 2014, the Energy Community Secretariat submitted a *Draft Law on Transmission of Natural Gas, Regulator and Internal Market in BIH* which is in compliance with the 'Third Package.' As BIH had not legally regulated this area, on 16 October 2015, for the first time in its history the Ministerial Council of the Energy Community adopted measures against BIH as a Contracting Party for one year period. After the *Agreement on the removal of serious and persistent breach of the Treaty establishing the Energy Community in the gas sector* was signed on 13 October 2016, on 14 October 2016 the Ministerial Council passed a decision on suspension of the previously imposed measures against Bosnia and Herzegovina until 31 March 2017, which is the deadline for adoption of the national law in accordance with the signed Agreement and an Action plan as defined by the Agreement.

### Case ECS-2/13

Case ECS-2/13 initiated by an Opening Letter on 11 February 2013 for failure to transpose and implement requirements concerning the reduction of emissions of sulphur dioxide (SO<sub>2</sub>) resulting from the combustion of heavy fuel oils and gas oils. Taking into consideration factual circumstances, the Secretariat sent a Reasoned Opinion to Bosnia and Herzegovina on 21 December 2015 and a Reasoned Request on 13 May 2016. Following a reply by BIH on 31 August 2016, on 14 October 2016 the Ministerial Council of the Energy Community passed a Decision establishing a breach of the Treaty establishing the Energy Community due to failure to implement Articles 3(1) and 4(1) of Directive 1999/32/EC pursuant to Article 16 of the Treaty, inviting BIH to immediately implement the defined obligations.

### Case ECS-1/14

Case ECS-1/14, initiated by an Opening Letter on 3 March 2014 for non-compliance of obligations by BIH concerning transposition and implementation of Directive 2006/32/EC on energy end-use and energy services. The deadline for transposition and implementation of this Directive expired at the end of 2011.

### Case ECS-6/16

Case ECS-6/16 initiated by a Reasoned Request on 13 May 2016 for failure to transpose the Third Energy Package of the EU (Directive 2009/72/EC, Directive 2009/73/EC, Regulation (EC) No. 714/2009 and Regulation (EC) No. 715/2009) and failing to notify transposing measures to the Secretariat. The case follows an expedited procedure for non-transposition of the *acquis* pursuant to Article 11(3) of the amended Dispute Settlement Rules. On 14 October 2016, the Ministerial Council passed a decision inviting BIH to undertake all necessary measures to rectify failure to transpose the Third Energy Package and ensure compliance with the Energy Community legal framework until December 2016.

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*Additional information on the activities and procedures conducted by the State Electricity Regulatory Commission may be obtained on the internet at [www.derk.ba](http://www.derk.ba), by phone on +387 35 302060 and 302070, fax +387 35 302077, e-mail [info@derk.ba](mailto:info@derk.ba) or at the SERC seat in Tuzla, Đorđa Mihajlovića 4/II.*

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