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STATE ELECTRICITY
REGULATORY COMMISSION

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STATE ELECTRICITY REGULATORY COMMISSION

**REPORT ON ACTIVITIES
OF THE STATE ELECTRICITY REGULATORY COMMISSION
IN 2019**

Tuzla, December 2019

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

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Contents

1.	INTRODUCTION	1
2.	COMPOSITION AND ORGANISATION OF WORK OF THE COMMISSION	3
3.	KEY ACTIVITIES	7
3.1	SERC Rules and Documents.....	7
3.2	Documents Approved by SERC	14
3.3	Licensing Proceedings	20
3.4	Monitoring of Activities of Licensed Entities.....	22
3.5	Dispute Resolution.....	25
3.6	Technical Aspect of Transmission System Operation	26
3.7	Tariff Proceedings.....	30
3.8	Electricity Market	34
3.9	Energy Statistics.....	43
3.10	Other Key Activities	47
4.	ACTIVITIES IN INTERNATIONAL INSTITUTIONS	55
4.1	Energy Community	55
4.2	Energy Regulators Regional Association – ERRA.....	59
4.3	Mediterranean Energy Regulators – MEDREG.....	60
4.4	Council of European Energy Regulators – CEER	61
4.5	International Confederation of Energy Regulators – ICER.....	62
4.6	Cross-Regional Cooperation	64
5.	AUDITING REPORT	65
6.	MAIN ACTIVITIES IN 2020	67
ANNEXES		
A:	Basic Data on the Electric Power System of Bosnia and Herzegovina	71
B:	Map of the Electric Power System of Bosnia and Herzegovina	73
C:	Balance Values of the Electric Power Sector of Bosnia and Herzegovina	75
D:	Electric Power Indicators of Bosnia and Herzegovina	77
E:	Energy Community <i>Acquis</i>	79

1. INTRODUCTION

At the global and local level the energy sector goes through the period of significant changes designed to promote its sustainable development. The decisions passed both at national and European level by policy makers, regulators, companies and customers 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 both on the present situation and on the future generations. Energy transition is a challenge and an opportunity for a new impetus to the development of the energy sector, economy and society as a whole.

The State Electricity Regulatory Commission is an independent institution of Bosnia and Herzegovina, which acts in accordance with the principles of objectivity, transparency and non-discrimination, 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.

The alignment of energy legislation with the European Union (EU) *acquis*, integrated development of energy and climate policies and implementation of the energy sector reform will be continued in the forthcoming period in Bosnia and Herzegovina (BIH) at all administrative levels in line with respective constitutional competences.

During 2019, the State Electricity Regulatory Commission (SERC) continued its regulatory mission in the sector creating the 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 market principles in the segment of ancillary services and power system balancing have become fully operational in BIH and set an example of a successful model in South East Europe. Although the wholesale market has not been institutionalised yet it shows an impressive scope of trading. On the retail market, the customers for whom the prices are not regulated accounted for 39.97% of final energy consumption. Furthermore, tens of thousands of customers changed the supply conditions by modifying contracts with their previous traditional suppliers, thus choosing on the open market supply offers that suited them best.

The BIH electric power system operated steadily and without any bigger problems throughout 2019. All system users were able to operate functionally in line with the defined quality standards. On 20 September 2019, a new 110 kilovolts (kV) transmission line (TL) Gacko – Nevesinje was connected to the transmission system, which for the first time ensured supply of substations SS 110/x kV Gacko and SS 110/x kV Nevesinje from two sides, thus significantly improving the quality of supply in this part of Bosnia and Herzegovina. A new cross-border transmission line TL 400 kV Trebinje – Lastva (Montenegro) was put into trial operation on 2 April 2019. With this the new Lastva substation was connected to the transmission

network with the entry/exit system to the existing transmission line TL 400 kV Trebinje – Podgorica 2. The construction of this substation is in the function of connecting a high voltage direct current (HVDC) transmission submarine cable between Montenegro and Italy.

At the beginning of January 2019, the first synchronisation of generators to the power system was conducted at the Jelovača wind farm with installed capacity of 36 megawatts (MW), thus starting its trial operation. After all functional tests were completed at the end of 2019, this power plant, which is connected to the transmission network through the substation SS 110/33 kV Jelovača, obtained approval of the Independent System Operator in Bosnia and Herzegovina for regular operation.

In the previous year, generation reached 16,074 gigawatt hours (GWh), which is 1,799 GWh, or 10.1% less than in 2018. An average year in hydrological terms resulted in generation of 5,650 GWh by hydropower plants, or 10.3% less in comparison to the previous year. Generation by thermal power plants also decreased amounting to 9,613 GWh, which is 10.2% less than in 2018. In 2019, the first two wind farms connected to the transmission system – Mesihovina and Jelovača, injected into the network 254 GWh. Small-scale renewable generation (small hydropower plants, wind farms connected to the distribution system, solar and biofuel plants) recorded a 7.8% increase amounting to 536.94 GWh. Industrial power plants produced 20.82 GWh.

Total electricity consumption amounted to 12,330 GWh, or 7.3% less than in the previous year. Consumption of customers connected to the transmission system decreased by 32.8% amounting to 1,751 GWh, while consumption of customers connected to the distribution network slightly increased amounting to 10,143 GWh.

The maximum load of the power system in the past year amounting to 1,945 MW was reported on 5 January 2019 at the 18th hour, which is less than the historic maximum of 2,207 MW reported at the same hour on 31 December 2014.

Total electricity in the transmission network amounted to 18,258.9 GWh, which is 10.17% less than in 2018. Transmission losses amounted to 323.9 GWh, or 1.77% of total energy in the transmission network. The trend of reducing distribution losses continued and they amounted to 933.3 GWh, or 9.2% in relation to gross consumption by customers connected to the distribution network, which is the lowest level in the history of the BIH power sector.

In 2019, a total of 5.879 GWh, or 9.2% less than in the previous year, was exported, while electricity imports amounted to 2,133 GWh, which is 14.4% more than in the previous year.

2. COMPOSITION AND ORGANISATION OF WORK OF THE 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.

The 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).

It is evident that the first five-year term of the Commissioner from the 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 operates with a full complement of the Commissioners and makes decisions by a unanimous vote, Mr. Milorad Tuševljak will perform this function until the completion of the procedure for the appointment of the Commissioner from the Republika Srpska for a new term.¹

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 2019, this function was performed by Mr. Milorad Tuševljak. Mr. Suad Zeljković is the current Chairman of the Commission until 30 June 2020.

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 non-discrimination. 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*. 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 dimensions.

The European Union (EU) energy acquis, which becomes mandatory for Bosnia and Herzegovina in line with the mechanisms established under the Treaty establishing the Energy Community, especially highlights the correlation between the regulatory indepen-

¹ At the time of the creation of this Report, the procedure for the appointment of the Commissioner from the Republika Srpska is in process before the Council of Ministers of Bosnia and Herzegovina. It was preceded by a proposal put forward by the Republika Srpska Government which was then confirmed by the Republika Srpska National Assembly. The Council of Ministers of Bosnia and Herzegovina proposes the appointment of the Commissioner to the Parliamentary Assembly of Bosnia and Herzegovina.

dence 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.

Pursuant to the Law, the basic provisions on competence, organisation and method of work, financing, transparency and the protection of confidential data are regulated by the *Statute of the State Electricity Regulatory Commission* adopted in 2003, immediately after the establishment of SERC followed by amendments in 2004 and 2009. In December 2017, the *Decision on amendments to the Statute* was adopted which clearly prescribed the exclusive organisational and formal role of the Chairman of the Commission without any additional powers in presenting, representing or decision-making of SERC in relation to the other two Commissioners. Consequently, any excessive formalism has been avoided with regard to registration of any modification of data in statistical, tax and other registers on an annual basis during the rotation of the Commissioners in the position of the Chairman.

The work of SERC is organised within four departments:

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

With the aim of performing tasks in a more efficient manner, 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 methods to improve its knowledge and experience, that is, to strengthen its professional capacities. The improvement of knowledge is achieved by participation in different professional symposiums, 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 the needs and expectations of the institution is provided by specialised workshops of the Energy Community Secretariat, training programs of the Energy Regulators Regional Association (ERRA), the Mediterranean Energy Regulators (MEDREG) and the Council of European Energy Regulators (CEER), 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 2019 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 Co-operation) through the project *Promoting Renewable Energy in*





Report on Activities of the State Electricity Regulatory Commission in 2018 was submitted to the Parliamentary Assembly of Bosnia and Herzegovina and the Ministry of Foreign Trade and Economic Relations of BIH on 4 April 2019.

BIH, under which several educational workshops were organised covering different topics.

SERC will remain dedicated to ensuring continuous professionalism of human resources through the well-established as well as new training methods and the use of modern communication tools. The justification of this approach is 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 informed and shared its 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 wider public, with special training organised for public media representatives.

Large volumes of different documents are created as a result of SERC activities. The number of documents and information has been constantly increasing. SERC, as the creator, organises the 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 recommendation and through mutual familiarisation of the two institutions.

In the reporting period, SERC used the possibility of applying a modern method of organising records management in its work, and in compliance with the prescribed standards and rules of the BIH Council of Minister, continued using an electronic records management system. In addition to the efficient entry and search of data as well as archiving a large number of documents in the digital form, the introduced system created the prerequisites for modern business process management and the integration with other business systems. In this process, good practice as recommended by the Office for Auditing of the Institutions of Bosnia and Herzegovina in their performance audit reports was taken into consideration.

Acknowledging the importance of free access to information as a fundamental characteristic of transparent and accountable action by any public authority, and remaining committed to acting along these lines on a permanent basis, SERC allows the wider public to have an insight into its work and decision-making processes, going beyond the mandatory framework in this field stipulated by the *Law on Freedom of Access to Information in Bosnia and Herzegovina*. SERC fulfils these commitments by publishing all relevant information on its official website in a timely manner, including also print media, through the presentation of SERC drafts documents, and notices and invitations to the public to participate in the creation thereof.

In addition to a proactive approach as the generally accepted standard in its activities, SERC also acts reactively, handling submitted requests for access to information in a timely manner, starting from the position that in any concrete case the public interest must prevail over the constraints stipulated by the mentioned Law and any private interest. SERC received two requests of this kind in 2019. In the first one, the information on average salaries in 2018 for SERC, Elektroprenos BIH and the ISO BIH was requested. After the applicants were given the information at SERC disposal accompanied by the relevant decision, the decision was neither challenged by an appeal nor did the applicant approach SERC again regarding the same issue. In the second request submitted, SERC was asked to release its Rules on salaries and allowances and provide answers to some questions which SERC did not have at its disposal as complete and existing information. Acting upon this request, the release of SERC's Rules on salaries and allowances was allowed while the remaining part of the request was rejected as in the request the information was not requested in line with the definition thereof stipulated by law, that is, SERC did not have the requested data in a material form or any form of data records. Irrespective of the fact that this part of the request was rejected, the applicant was provided with answers and positions of SERC with regard to the questions asked, independently from the decision-making procedure concerning the request for access to information. An appeal was lodged against this decision, which was rejected in the second-instance procedure.

SERC also meets other obligations stipulated by the *Law on Freedom of Access to Information in BIH* and submits required reports to the Institution of Human Rights Ombudsmen of BIH.

Communication with the public plays a key role in creating perceptions, that is, the ways for the public to understand how institutions function. Communication is of particular importance in the period of reforms and structural changes. In the process of sector liberalisation, deregulation and market opening it is necessary both to inform the public in a timely manner of the major phases and to continuously communicate with all key stakeholders about the reform and educate them about the way the sector as a whole functions.

It is good practice of regulatory commissions in the energy sector to implement public outreach activities to explain and clarify the changes brought by the liberalisation of the sector and market opening. In line with this, the regulatory commissions in BIH, which as unbiased organisations protect the interests of customers by regulating relationships in the sector and electricity market, have a key role in raising awareness of the changes in the sector and regulators' activities in the liberalisation process.

In this context, SERC plans to develop a coherent Communication and Public Outreach Plan, thus making an additional step to clarify very complex issues in the energy sector to all interested stakeholders in a simple and comprehensible manner.

3. KEY ACTIVITIES

In 2019, the State Electricity Regulatory Commission held 19 regular sessions, 30 internal meetings and organised eight public hearings, of which five were of general and three of formal nature.

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 comments 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 licences, and carried out other activities of which the most important ones are grouped in the clusters provided below.

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

3.1 SERC Rules and Documents

Connection Network Codes

Harmonisation, that is, unambiguous regulation of a whole set of rules for network operation was recognised in the Third Energy Package of the EU.² In line with this, the EU Member States, with full participation of the European Network of Transmission System Operators for Electricity (ENTSO-E), the European Network of Transmission System Operators for Gas (ENTSO-G) and the Agency for the Cooperation of Energy Regulators (ACER) conducted a complex activity of developing codes and guidelines for operation of networks (*Network Codes*). The set of these codes in the electricity sector includes codes on market, system operation and connection:

Market Codes

- Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management (CACM),
- Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (FCA), and
- Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (EB).

Documents under regulatory competences are reviewed and defined 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.

² Establishment of network codes is defined in Article 6 of Regulation (EC) 714/2009, that is, of Regulation (EC) 715/2009.

System Operation Codes

- Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (SO), and
- Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration (ER).

Connection Codes

- Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection (DCC),
- Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators (RfG), and
- 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).

Network codes and guidelines are technical rules adopted with the aim of establishing joint rules for the reliable system operation, and market functioning and integration. These legal acts supplement the existing *acquis* of the European Union and are directly applicable in the EU Member States. They are the key element for efficient functioning of a pan-European market which puts electricity customers at the forefront.

In the Energy Community, activities on adopting decisions by the Permanent High Level Group (PHLG) for transposition of these codes into the *acquis* were carried out in the previous years. On 12 January 2018, PHLG adopted the decisions transposing the connection codes into the Energy Community *acquis*, that is, Commission Regulation (EU) 2016/631, Commission Regulation (EU) 2016/1388 and Commission Regulation (EU) 2016/1447. For this reason, the issue of transposition and implementation of the network codes and guidelines was imposed as one of the key activities in the work of the relevant institutions in BiH, including SERC and the ISO BiH.

In this context, in June 2018, the State Electricity Regulatory Commission adopted the *Decision on transposition of network codes on connection*, which defined the terms and conditions for transposition of the three aforementioned European Commission Regulations as adapted to the Energy Community legal framework by the PHLG decisions in the electricity sector of Bosnia and Herzegovina. On that occasion, these Regulations were published in the languages officially used in Bosnia and Herzegovina on the SERC website (www.derk.ba).

In this Decision the Independent System Operator in Bosnia and Herzegovina was called upon to submit without delay the Grid



Code and innovated rules which ensure the application of the provisions of these Regulations with shorter deadlines for implementation, and to ensure the compliance of its rules with all requirements under these Regulations in the forthcoming period. In its Decision SERC called upon the Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina, the Regulatory Commission for Energy of the Republika Srpska and other relevant authorities to ensure the compliance of their relevant acts with the requirements under the connection codes.

Respecting the Energy Community requirements regarding the deadlines for transposition and implementation of the provisions of the regulations which have been prioritised by the Permanent High Level Group decisions and required the implementation without delay, following a general public hearing, in coordination with the ISO BIH in February 2019 SERC adopted the *Rules on Connection Network Codes*. In line with the competences of the State Electricity Regulatory Commission defined pursuant to Article 4.2 of the Law on Transmission of Electric Power, Regulator and System Operator of Bosnia and Herzegovina, by these Rules one part of the Energy Community network codes was transposed into the legal system of Bosnia and Herzegovina. This pertains to the provisions which, pursuant to the relevant Permanent High Level Group decisions, are to be implemented without delay. At the same session, a new *Grid Code* was approved by which a part of the connection network codes under ISO BIH competence had been transposed.

The provisions to be implemented without delay include, *inter alia*, Article 61(1) of Commission Regulation (EU) 2016/63151, Article 51(1) of Commission Regulation (EU) 2016/1388 and Article 78(1) of Commission Regulation (EU) 2016/1447. In accordance with the aforementioned Articles of the adapted Regulations, each regulatory authority will specify, after consulting relevant system operators, power-generating facility owners, demand facility owners and other stakeholders, the criteria for granting derogations in accordance with the relevant provisions of the Regulations. Subsequently, pursuant to the *Rules on Connection Network Codes*, at the SERC session held on 27 March 2019 the following decisions were passed:

- *Decision specifying Criteria for granting derogations from application of rules for connection of generating modules*
- *Decision specifying Criteria for granting derogations from application of rules for connection of demand facilities, and*
- *Decision specifying Criteria for granting derogations from application of rules for connection of new and existing high voltage direct current systems and direct current-connected power park modules.*

SERC published the specified criteria on its official website and notified the Ministry of Foreign Trade and Economic

Relations of BIH and the Energy Community Secretariat on 10 April 2019 thereof, as the only regulatory authority in the region which fulfilled its part of the obligations within the defined timeframe. With this, transposition of the provisions which are under SERC competence and which are to be implemented without delay was completed.

Taking into consideration that mentioned rules regulate the substance which is also under competence of other authorities, it is necessary to ensure the coordination of activities of all competent institutions, including the Entity Regulatory Commissions and all distribution system operators, besides the ISO BIH and Elektroprenos BIH. Furthermore, the complexity of the content of connection network codes as well as the complex administrative structure in the BIH energy sector impose the need for an active role and concrete support of the state and entity line ministries and the Directorate for European Integration of the BIH Council of Ministers in further activities on the complete and efficient fulfilment of obligations of Bosnia and Herzegovina before 12 July 2021, that is, the deadline for full implementation of the connection network codes.

Wholesale Energy Market Integrity and Transparency

Electricity produced by power plants is often bought and sold several times on the wholesale market before delivery to the end customer. These transactions in electricity normally take place in large quantities and include electricity producers, traders, suppliers, large customers and even investment banks. Gas is traded in a similar manner. In Europe several hundreds of companies are included in wholesale trading in electricity and gas conducting tens of thousands of transactions on the market on a daily basis.

Wholesale prices are very sensitive to the availability of production and transmission because energy has to be generated when needed. Prices may be affected by spreading false information on availability or reduced generation.

Given that large quantities of energy are traded across borders, traditionally it is difficult to discover possible price manipulations of this kind as national regulators did not have access to cross-border data. As a response to these facts, *Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency (REMIT)* was adopted in the European Union. This Regulation introduces a common European framework on wholesale markets for:

- Definition of market abuse with regard to market manipulation, attempts to manipulate the market and insider trading,
- Introduction of the explicit prohibition of market abuse,

“SERC ranks amongst those regulators that partly transposed the Network Code Regulations within the limits of its competences and is the only regulator that adopted exemption criteria, as foreseen by the Codes.”

From Annual Implementation Report of the Energy Community Secretariat, Vienna, 1 November 2019

- Establishment of a new framework for the registration of market participants and wholesale market monitoring with the aim of detecting and preventing market manipulation and insider trading, and
- Definitions of prohibitions and the application of penalties at national level if market abuse is detected.

REMIT is applied to all market participants whose activities affect wholesale energy markets, that is, all natural or legal persons (including transmission system operators) carrying out or conducting transactions on one or several wholesale energy markets. All market participants with the seat in any EU country as well as those with the seat outside the EU if trading or placing orders on one or several EU markets are subject to this Regulation.

The Ministerial Council Decision of 29 November 2018 expanded the Energy Community *acquis* by including *Regulation (EU) on wholesale energy market integrity and transparency* with required adaptations to the Energy Community legal framework and defining the obligation to implement it by 29 May 2020.

With regard to the obligations under REMIT specified for national regulatory authorities, it should be pointed out that SERC competences include creation and maintenance of competitive markets, and prevention and punishment of any predatory or anti-competitive conduct. Starting from the obligations of national regulatory authorities defined by this Regulation and on the basis of the aforementioned SERC competences, in 2019 SERC launched activities on transposition and implementation of REMIT in the electricity sector. In this context, the translation of the adapted Regulation in the languages officially used in Bosnia and Herzegovina was prepared and published. On 18 December 2019, a *Draft decision on transposition of the Regulation on wholesale energy market integrity and transparency* was passed, defining the terms and conditions for transposition and implementation of the part of the Regulation which is under SERC competence.

Acknowledging the competences of the Ministry of Foreign Trade and Economic Relations of BIH, and the need to coordinate activities between the Competition Council of BIH and SERC in particular due to their complementary competences in the field of electricity market, the State Regulatory Commission called upon these institutions to provide their observations and comments on the Draft decision by the end of January 2020.

Following the adoption of this Decision, SERC plans to transpose through an implementing act only those provisions of the Regulation which may be regulated through secondary legislation and which pertain to the electricity sector exclusively.

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 ISO BIH 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 strategically paved the way for further trends to finalise the existing regulatory framework for the provision of ancillary services for the power system balancing. The Concept includes solutions for energy and financial calculation of imbalances, i.e. daily schedule deviations by balance responsible parties, while with the introduction of a system service tariff the financial settlement is enabled between the ISO BIH as the balancing market operator and the market players who provide their services on that market.

A number of activities of SERC and the ISO BIH, which were described in detail in the previous Reports 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 into the formerly fully regulated method of providing ancillary services and the BIH power system balancing. In this manner, the functionality of open wholesale and retail electricity markets in Bosnia and Herzegovina was enhanced (please see Section 3.8).

In the past four years, the electricity balancing market in BIH 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, SERC closely monitored its operation and modified the documents regulating its operation as appropriate.

In this context, the ISO BIH also amended the supporting documents of the Market Rules several times (*Procedures for Ancillary Services and the Rules on Daily Balancing Energy Market Operations*). In 2019 some details of *the Rules on Daily Balancing Energy Market Operations* were finalised in the sections referring to submission of bids in intraday activities. The innovated Rules, which are applicable as of September 2019, further encourage ancillary services providers to nominate bids for balancing energy (various types of bids were introduced, minimum time for bid engagement was shortened to 30 minutes, modifications were made within intraday activities etc.).

With the aim of further improving the market, a Study on the improvement of the balancing mechanism, balancing market and



preparation of the Market Rules revision was developed. The Study is the result of joint activities of SERC and the ISO BIH which were actively supported by USAID through the *Energy Investment Activity* in 2018 and 2019. A detailed analysis of the balancing mechanism implementation and BIH balancing market functioning focused in particular on legal-regulatory, organisational, technical and financial aspects with the aim of preparing proposals to improve the existing solutions. Having regard to the commitment to continuously improve rules and procedures under its competence, SERC continues activities on the development of organised functioning of the balancing market, and further improvement, efficiency, cost-effectiveness and stability of the BIH power system operation. SERC will closely cooperate with the ISO BIH on the implementation of recommendations and conclusions of the mentioned Study to harmonise required amendments to the acts under competences of both institutions which define the balancing mechanism.

With the successful balancing market development, the offer of services increased significantly and the needs for ancillary services in 2020 had already been met to a significant extent through annual bids organised by the ISO BIH at the end of 2019 (electricity to cover loss in the transmission system as well as reserve capacity for upward and downward tertiary control is fully provided, while secondary control in the peak and off-peak periods is provided in full and in an amount of 67.6% respectively). The missing volumes of secondary control reserve capacity in the off-peak period will be purchased on a monthly basis.

The results of ancillary service purchases for 2020 indicate that the price increase has stopped while a certain decrease in purchase prices of some ancillary services has also been noticed. An average price of energy for covering of losses in the transmission system reached at the bid for 2020 amounts to 64.34 EUR/MWh, which is 7.44% lower than the same value for 2019. Furthermore, prices of secondary and tertiary capacity stagnate or decrease, so, for example, tertiary reserve was purchased at an average price of 1.80 EUR/MW/h, which is 0.74% lower than in the previous year.

Integration of Capacity from Intermittent Energy Sources

The integration of renewable energy sources from the aspect of the possibility to control the system, and the maximum capacity for their integration have been central to the work of the State Electricity Regulatory Commission for years.

At SERC request, the Independent System Operator in BIH prepared a study titled *Integration of Wind and Solar Energy Sources in the Power System of Bosnia and Herzegovina*. Having reviewed and analysed the study, SERC called upon the ISO BIH to make concrete proposals in line with the Study in terms of

defining the maximum capacity for integration of renewable energy sources and inform the interested expert community of these activities. In this context, on 16 January 2019 a public presentation of the Study was made where the expert community had an opportunity to be informed of the approach, method and methodology and input data used in the development of this document.

At the end of February 2019, the ISO BIH made a proposal for maximum capacity for the integration of intermittent energy source into the electric power system of Bosnia and Herzegovina taking into consideration the possibility of control of the transmission system of Bosnia and Herzegovina.

On 14 March 2019 SERC passed a *Decision on approval of maximum capacity for the integration of intermittent energy sources*, approving the submitted proposal according to which these values amount to:

- 460 MW for wind power plants, and
- 400 MW for photovoltaic power plants.

SERC called upon the competent authorities of the Federation of Bosnia and Herzegovina and the Republika Srpska to agree upon the mutual allocation in accordance with the existing practice leaving the possibility to trade-off one technology for the benefit of the other, but in compliance with the amounts defined by this Decision.

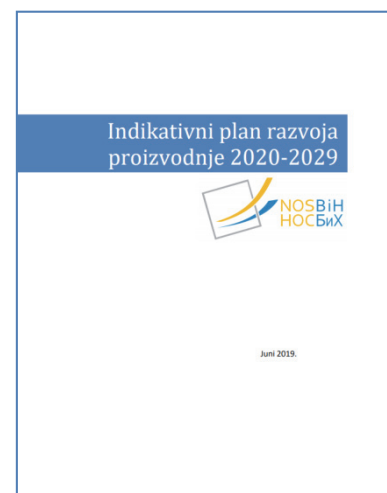
In accordance with the sector and electricity market developments in Bosnia and Herzegovina and the region, the Independent System Operator in Bosnia and Herzegovina is obligated to continuously make necessary analyses and provide SERC with modified well-grounded proposals for maximum capacity for the integration of intermittent energy sources.

3.2 Documents Approved by SERC

Indicative Generation Development Plan

An *Indicative Generation Development Plan* is developed for a ten-year period every year. The purpose 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 the European Network of Transmission System Operators for Electricity (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.³ 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.

For the development of the *Indicative Generation Development Plan for the Period 2020 – 2029*, 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 consumption. 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 a more significant contribution by the relevant entity ministries and regulatory commissions was recognised.

The ISO BIH organised a public hearing on the Draft document on 12 April 2019 after which, on 30 April 2019, the ISO BIH submitted the *Indicative Generation Development Plan for the Period 2020 – 2029* to SERC for approval. On 16 May 2019 the State Regulatory Commission reviewed the submitted text and informed the proponent of its observations accordingly, calling upon it to submit a revised document for approval. The revised Indicative Plan was submitted for approval on 20 June 2019.

The State Electricity Regulatory Commission adopted a *Decision on approval of the Indicative Generation Development Plan for the Period 2020 – 2029* in July 2019 with a Conclusion in which SERC emphasised its positions on the method and procedure for the development of the Indicative Plan, on which SERC would also insist in the forthcoming period. It was pointed out in the Conclusion that there was a lack of an analytical approach to new generation capacity balancing and consumption estimates, and underlined the obligation of the ISO BIH to update the Indicative Plan with all up-to-date and relevant data and information available during its preparation.

³ TYNDP 2018, that is, the latest *European Ten-Year Transmission Network Development Plan* was revised following public consultation and after the Agency for the Cooperation of Energy Regulators (ACER) released its opinion pursuant to Regulation 714/2009 and published in October 2019.

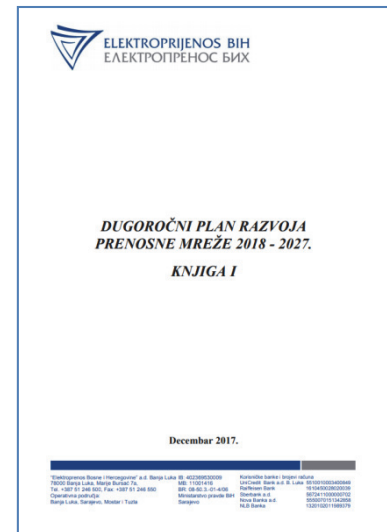
Long-Term Transmission Network Development Plan

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 development of a Long-Term Development Plan also 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.

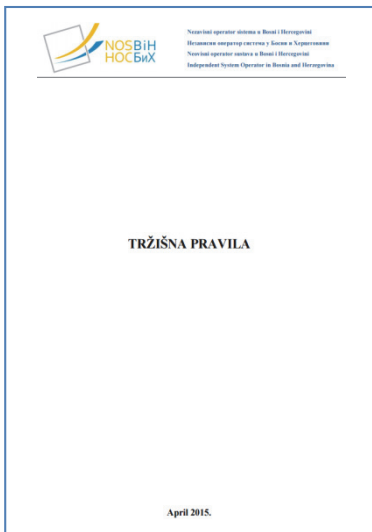
The Long-Term Transmission Network Development Plan should define the required reinforcements of the existing transmission network facilities and construction of the new ones to ensure timely commencement of activities with regard to designing, constructing and putting into operation of infrastructure necessary for the continuous supply and system stability. The transmission network planned in this manner provides the same conditions for the users already connected and those to be connected to the transmission network. It implies uniform conditions related to the condition of the transmission network in terms of lifespan and refurbishment of equipment, construction of new facilities and operational readiness of facilities used for the transmission of electricity.

The latest *Long-Term Transmission Network Development Plan for the Period 2018 – 2027* was submitted to SERC for approval in the middle of February 2018, with a delay of several months. After completing the analyses, in March 2018 SERC passed a *Decision on approval of the Long-Term Transmission Network Development Plan for the Period 2018 – 2027*. On that occasion, a Conclusion was adopted comprising SERC observations and views stemming from the review of the Long-Term Plan as well as regulator's requirements towards the ISO BIH and Elektroprenos BIH as the regulated companies. However, no long-term plans for the forthcoming ten-year periods (2019 – 2028 and 2020 – 2029) had been submitted to SERC after that in spite of several reminders and notifications addressed to the regulated companies. The drafts of these documents were prepared technically by the relevant sectors of Elektroprenos BIH but the management bodies of the Company did not either adopt them or submit them to the ISO BIH for review and approval which is to be followed by final SERC approval.

Acknowledging the importance of this document, through the Licence Conditions for performance of the activity of an independent system operator SERC prescribed the obligation of holding a public hearing on a revised Long-Term Plan, thus enabling the public to have an insight into and give comments and observations on the prepared material.



Market and Grid Codes

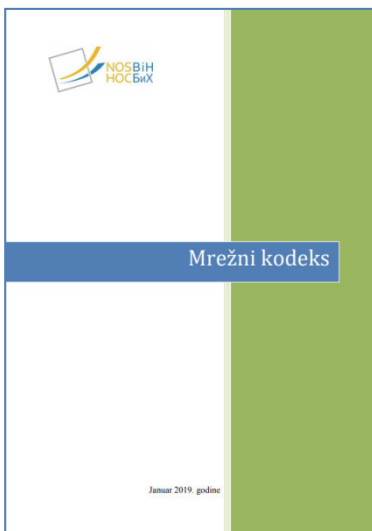


The State Electricity Regulatory Commission closely monitored the implementation of the Market and Grid Codes in 2019.

The *Market Code* regulates relationships between the ISO BIH and licensed players on the electricity market. The purpose of the Code is to create conditions for safe operation of the BIH power system, including efficient procurement of ancillary services and provision of system service, balancing of the BIH system at the lowest possible costs, and efficient functioning and further development of the wholesale and retail electricity markets in BIH.

The Market Code is an exceptionally demanding technical document which includes the basic concept of market design, legal and regulatory framework for market design, technical preconditions for market functioning and provides a number of procedures regulating technical and commercial relationships among market players.

The applicable Market Code was approved by SERC in May 2015 with the effective application commencing as of 1 January 2016.



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 activities (dispatching, procedures, communications), measures in unexpected situations (demand management, 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 purpose 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 good European practice.

The new Grid Code, approved in February 2019, represents a quality step forward in structural and normative terms, additionally defines the preparation of planning documentation and connection procedures and takes over to a significant extent the standards defined by the network codes and guidelines including the provisions of the connection network codes which are under competence of the system operator (Please see Section 3.1).

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 of Bosnia and Herzegovina with Montenegro and Croatia were organised.

During 2019 as well, SEE CAO organised its activities in line with auction rules for capacity allocation as approved by separate decisions of competent national regulators in the region, including the State Electricity Regulatory Commission. These rules include:

- Harmonised Allocation Rules for long-term transmission rights pursuant to Article 51 of Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation,
- Specific annex for the bidding zone borders serviced by the Coordinated Auction Office in South East Europe (CAO SEE) to the Harmonised Allocation Rules for long-term transmission rights,
- Rules for explicit daily capacity allocation on the bidding zone borders serviced by SEE CAO,
- Participation Agreement between the Coordinated Auction Office in South East Europe d.o.o. Podgorica (Allocation Platform) and the Registered Participant,
- Financial conditions for participation in procedures organised by the Allocation Platform pursuant to the Participation Agreement,
- SEE CAO Nomination Rules, and
- SEE CAO Information System Rules.

On several occasions at national and international gatherings, SERC expressed its support to the successful operation of SEE CAO and its expectation that the geographic scope would include operators from all countries of South East Europe.

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 13 November 2019, 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 control areas of EMS AD Beograd (EMS) and the and the Independent System Operator in Bosnia and Herzegovina (ISO BIH), and*
- *Rules for daily auctions for allocation of transmission capacities on the border between control areas of EMS AD Beograd (EMS) and the Independent System Operator in Bosnia and Herzegovina (ISO BIH).*

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 control areas of the Independent System Operator in Bosnia and Herzegovina (ISO BIH) and EMS AD Beograd (EMS),*

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

The allocation of transmission capacities on the border with Serbia through annual and monthly auctions will be conducted by Elektromreža Srbije (EMS) also in 2020 while daily and intraday auctions will be conducted by the ISO BIH. Intraday auctions on the borders with Croatia and Montenegro will be conducted by HOPS and the ISO BIH respectively.

Cross-Border Tertiary Regulation

In 2017, the ISO BIH initiated the activities with the neighbouring system operators on the establishment of a model enabling the cross-border exchange of tertiary control energy. After a virtual cross-border line was registered in this context, the ISO BIH submitted to SERC for approval the *Contract on mutual delivery of cross-border tertiary control energy for the provision of system services from abroad for the electric power systems of Bosnia and Herzegovina and Serbia*. The State Electricity Regulatory Commission approved this Contract on 11 October 2017. At the beginning of 2018, the *Contract on mutual delivery of cross-border tertiary control energy for the provision of system services from abroad for the electric power systems of Bosnia and Herzegovina and Montenegro* was prepared, which was approved by SERC on 13 March 2018.

The subject of the Contract is the provision of assistance in the form of mutual delivery of cross-border tertiary control energy in order to enhance secure and reliable operation of the neighbouring power systems. In this manner, the cross-border exchange of one of the products on the balancing market, formerly known as ‘emergency exchange’, is formalised. A virtual transmission line registered in the SCADA systems of the two operators for simulation of exchange is used for calculation of transactions, which is in line with *the ENTSO -E Continental Europe Operation Handbook*. For energy exchange in physical terms, the remaining available cross-border capacity will be used after the completion of intraday capacity allocation. A part of the obligations of Bosnia and Herzegovina regarding the measures under the *Road Map for the implementation of Western Balkans 6 Initiative* (the so-called *WB6 Initiative*) pertaining to cross-border exchange of balancing services is fulfilled through the implementation of these contracts.

In 2019 SERC monitored the cross-border exchange of tertiary control energy. In accordance with the signed contracts,

1,930 MWh was delivered to Elektromreža Srbije, while 140 MWh was purchased from them and 130 MWh was delivered to the Montenegrin Electric Transmission System. The values of delivered and purchased control energy amount to EUR 243,402 and EUR 17,897 respectively.

Furthermore, in 2019 the cross-border exchange of electricity was registered under the *Agreement on common control reserve in the SHB Control Block* (Slovenia – Croatia – Bosnia and Herzegovina) which defines the operation of the three system operators (ELES, HOPS and ISO BIH). In these transactions the ISO BIH delivered 20 MWh and purchased 535 MWh, with the values of delivered and purchased control energy amounting to EUR 1,932 and EUR 54,383 respectively.

The General Conditions for Electricity Supply in the Brčko District of BIH

With the aim of removing any shortcoming in the rules and procedures, and consequently, improving the interaction with the distribution system users in the Brčko District of BIH, at the beginning of January 2019 JP Komunalno Brčko submitted a Decision on amendments to the General Conditions for Electricity Supply to SERC for approval.

After the review of the submitted documentation it was established that no public hearing was held in the procedure for adoption of this Decision, which is a part of regular practice in the procedure for amendments to general conditions for electricity supply. Therefore, in its correspondence of 4 February 2019 SERC requested that a public hearing on the document be held with appropriate notification of all members of the public.

The public hearing with a view to collecting observations, comments and opinions in order to develop a better final version of the proposed document was held on 22 March 2019 in Brčko.

Following the submission of the revised text, on 16 May 2019 SERC passed *A Decision on approval of amendments to the General Conditions for Electricity Supply in the Brčko District of BIH*. On that occasion, JP Komunalno Brčko was called upon to prepare a consolidated version of the General Conditions and continue to improve this document in accordance with good practice in this field.

3.3 Licensing Proceedings

In 2019, SERC granted three licences for various activities, while at the time of creating this Report, it was intensively working on the applications filed by Petrol BH Oil Company d.o.o. Sarajevo and Inozemni centar trgovine d.o.o. Široki Brijeg.

In June 2019 a new licence for the activities of an independent system operator was granted to the Independent System Operator in Bosnia and Herzegovina which is valid until 30 June 2026.

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:

- Ezapada d.o.o. Mostar (March 2019), and
- Axpo BH d.o.o. Sarajevo (October 2019).

All 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 the adoption of these conditions as a standard set of rules on the rights 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 licence, 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.

After notification of change of the address by JP Elektroprivreda Hrvatske zajednice Herceg Bosne d.d. Mostar, a decision on an extension of use of the licence at the newly registered address was adopted for this licensee (July 2019). In December 2019 a decision on the same basis was adopted for Axpo BH d.o.o. Sarajevo.

At the request of the licensee, in March 2019 a decision on suspension of temporary licence for the international trading activity was adopted for Aluminij Trade d.o.o. Mostar. In May 2019, due to specific violations of the provisions of the licence conditions a decision suspending the temporary licence for performance of the international electricity trading activity was adopted for Vitol Adriatik d.o.o. Sarajevo. After the application for revocation of the licence was completed as the management structures adopted a decision on cessation of further business operations and bankruptcy of the Company, in June 2019 SERC adopted a decision revoking the temporary licence of Vitol Adriatik d.o.o. Sarajevo.

On 18 September 2019, Erdal d.o.o. Sarajevo filed an incomplete application for revocation of the licence for performance of the international electricity trading activity stating that the Company had financial problems as it was not able to collect receivables from its customers. As in the following period shortcomings of the application submitted were not removed, at its own initiative SERC suspended the licence of Erdal d.o.o. Sarajevo in October 2019 and then, after holding a general public hearing, revoked this licence at the end of November 2019. On this occasion it was pointed out that lack of financial stability of licensees may have a negative impact

on other entities in the sector, the functioning of the market and quality of electricity supply.

At the end of 2019, the following 16 companies were registered in the Register of valid licences: Petrol BH Oil Company d.o.o. Sarajevo, Interenergo d.o.o. Sarajevo, HEP Energija d.o.o. Mostar, Danske Commodities BH d.o.o. Sarajevo, GEN-I d.o.o. Sarajevo, Alpiq Energija BH d.o.o. Sarajevo, HSE BH Energetsko preduzeće d.o.o. Sarajevo, EFT – Rudnik i Termoelektrana Stanari d.o.o. Stanari, JP Elektroprivreda Hrvatske zajednice Herceg Bosne d.d. Mostar, MH Elektroprivreda Republike Srpske – Parent Company, a.d. Trebinje, JP Elektroprivreda Bosne i Hercegovine d.d. Sarajevo, Energy Financing Team d.o.o. Bileća, G-Petrol d.o.o. Sarajevo, LE Trading BH d.o.o. Banja Luka, Ezpada d.o.o. Mostar and Axpo BH d.o.o. Mostar.

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

Every year, including this one, comparing the previous year's status Elektroprenos BIH 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 May 2019. In March 2019, a Conclusion on update of annexes to the Licence Conditions for the electricity distribution activity was adopted, that is, overviews of facilities used for this activity.

3.4 Monitoring of Activities of Licensed Entities

The State Electricity Regulatory Commission continuously monitors operations of the licensed entities and their compliance with the licence conditions. Monitoring is performed through analysis of regular and special reports submitted by all licensed entities as well as by visits to the licensees. The licensees submit annual, semi-annual, monthly and daily reports on individual activities of a financial, technical and organisational nature. 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 September and October 2019, the following regulated entities were visited:



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

The compliance of the Independent System Operator in Bosnia and Herzegovina with the obligation to monitor voltage quality, which should be maintained within the prescribed limits through operational control, is of particular interest to SERC. Regarding the multiannual problem of high voltage levels in the BIH power system, SERC insists on cooperation between the ISO BIH and Elektroprivnos BIH with the aim of urgently finding and implementing a solution which would ensure that the voltage in the high-voltage network is within the allowed limits.

The ISO BIH prepares reports on emergencies in the power system. Practice of providing SERC with detailed reports on individual events resulting in zero-voltage of busbars should be expanded by the development of summary reports under reporting on the condition of the control system and quality of supply, which would include a statistical overview of the main values (number, duration and quantities of energy not supplied, i.e. not produced) and a proposal of measures to reduce these events. A particular attention should be paid to the operation of 110 kV network and the areas with radial supply.

In the function of the security of supply, the ISO BIH was called upon to start developing standardised procedures which are in the function of enhancing physical and cyber security of all ISO BIH information-communication systems.

SERC closely monitors all judicial proceedings involving the ISO BIH, and, in this context, insists on delivering all of the relevant information in a timely manner.

As part of regulatory monitoring, SERC pays particular attention to reviewing financial performance indicators of the ISO BIH, on which SERC gives its opinion during decision-making process in the proceedings for setting of the tariff for operation of an independent system operator and tariffs for system and ancillary services (Please see Section 3.7).



Under regulatory monitoring, the obligations of Elektroprivnos BIH to develop long-term transmission network development plans for a ten-year period and develop and adopt annual investment plans were pointed out in particular. SERC expressed its concerns over the multiannual failure to develop the mentioned plans, which prevents the implementation of necessary projects and endangers the reliable system operation and the quality of electricity supply. Of particular concern is the failure to inform the competent regulator of the reasons for non-compliance with these obligations as well as of the activities on removing the reasons which had caused this situation.

SERC has been pointing out for years that the voltage levels in the BIH power system are very often above the prescribed limits. In this context, the State Electricity Regulatory Commission insists on appropriate cooperation between the ISO BIH and Elektroprenos BIH with the aim of urgently finding and implementing a solution which would ensure that the voltage in the high-voltage network is within the allowed limits.

Furthermore, SERC closely monitors the course and outcomes of judicial proceedings involving Elektroprenos BIH, in particular those which may establish case law the result of which would have a negative financial impact on business operations of the regulated company. In this context, it was insisted on sharing the information with SERC in a timely manner and in full. In addition, it is necessary to duly inform SERC of non-collected receivables of Elektroprenos from holders of licences for electricity trading in order to prevent negative financial effects on the regulated company in a timely manner.

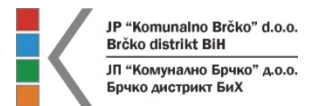
As part of regulatory monitoring, SERC pays particular attention to reviewing financial performance indicators of Elektroprenos BIH, on which SERC gives its opinion during decision-making process in the proceedings for setting of the tariffs for electricity transmission services (Please see Section 3.7).

SERC permanently insists on enhancing cooperation between the ISO BIH and Elektroprenos BIH and improving the coordination of their activities, in particular the international activities from which the BIH power system may have benefits.

As part of regulatory monitoring of JP Komunalno Brčko, on several occasions the State Electricity Regulatory Commission reiterated the necessity of developing the legal framework in the Brčko District of BIH, i.e., passing a new electricity law in accordance with the Third Energy Package as well as laws on renewable energy sources and efficient cogeneration and energy efficiency. The failure to pass the new legislation slows down and prevents further development of the sector to a significant extent and jeopardises the security of supply in the District area.

A particular problem is the failure to regulate mutual ownership relationships between the competent bodies of the Brčko District and JP Komunalno Brčko over the fixed assets in the function of electricity distribution and supply. In addition, it is necessary to finalise the procedure for the increase of Company's equity from the current EUR 1,000 to the minimum of EUR 500,000 as prescribed by SERC rules for the entities engaged in electricity trading and supply.

In 2019 as well SERC reiterated the necessity of full unbundling of accounts for distribution and supply activities as well of these activities and other non-energy activities (water production and distribution, landscaping and maintenance of public areas and collection, transport and disposal of waste materials).



The regulated company was informed of the need to continue its activities on the reduction of electricity loss in the distribution network taking into account that this loss in the Brčko District of BIH is higher than the BIH average. As part of regulatory monitoring, it was emphasised that all competent entities in the Brčko District of BIH should act continuously on the removal of observed shortcomings.

3.5 Dispute Resolution

One of the regulatory specifics is the adjudicative function of the regulator, that is, the competence to resolve disputes among the users and service providers in the regulated sector. Pursuant to the *Law on Transmission of Electric Power, Regulator and System Operator of BIH*, part of SERC competences and powers includes dispute resolution regarding the transmission system. Within this regulatory function, in the previous period SERC acted in two cases – the first case pertained to the dispute between Elektroprenos BIH and JP Elektroprivreda Hrvatske zajednice Herceg Bosne regarding the obligation to pay the regulatory fee for the connection of HPP Mostarsko blato to the transmission network while the other case pertained to the request of Prevent BH d.o.o. Sarajevo to acquire status of a customer directly connected to the transmission network.⁴ Both decisions of the State Regulatory Commission in these proceedings are *ex lege* final and enforceable. The decision pertaining to the payment of the fee for the connection of HPP Mostarsko blato to the transmission network was contested before the Court of Bosnia and Herzegovina. In July 2019 the case was closed by a final judicial ruling rejecting the appeal and confirming the SERC decision (Please see Section 3.10, under the title *Ongoing and Resolved Court Disputes*). The SERC decision ordering Elektroprenos BIH to connect Prevent BH d.o.o. Sarajevo to the transmission network at the location of Topuzovo polje was implemented by Elektroprenos within the given deadline and was not contested through an administrative dispute.

In 2019, there were no new dispute resolution requests under SERC competence. In addition to directly ensuring the right to fair and non-discriminatory access to the transmission network and the active protection of customers through dispute resolution, the State Regulatory Commission makes every effort to act in an educative and preventive manner and these efforts significantly prevent these disputes. The preventive activities are carried out in several ways – by monitoring the regulated entities and the services they provide, by collecting, analysing and processing data on rules and actions of the regulated entities with regard to access to the transmission network and the protection of customers and by the active participation of SERC representatives in various platforms and educative tools for users and consumers.

⁴ The dispute resolution procedures in these cases were described in SERC 2017 and 2018 Annual Reports.

3.6 Technical Aspect of Transmission System Operation

The BIH electric power system operation in 2019 was stable and without any bigger problems. All system users were able to operate functionally in line 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.

A maximum load of the electric power system amounting to 1,945 MW was recorded on 5 January 2019 at the 18th hour, which is also the day when a maximum daily consumption was recorded amounting to 38,951 MWh. A minimum load of 709 MW was recorded on 14 July 2019 at the 6th hour, which is also the day when a minimum daily electricity consumption of 23,721 MWh was recorded. Maximum and minimum loads in 2019 and over the past ten years are presented in Figures 1 and 2 respectively.

Unintended deviations from declared exchange schedules towards the neighbouring power systems in 2019 amounted to 42 GWh at hours when an electricity deficit was registered in the BIH control area and a total of 39 GWh at hours when an electricity surplus

Figure 1. Maximum and minimum monthly load in 2019 (MW)

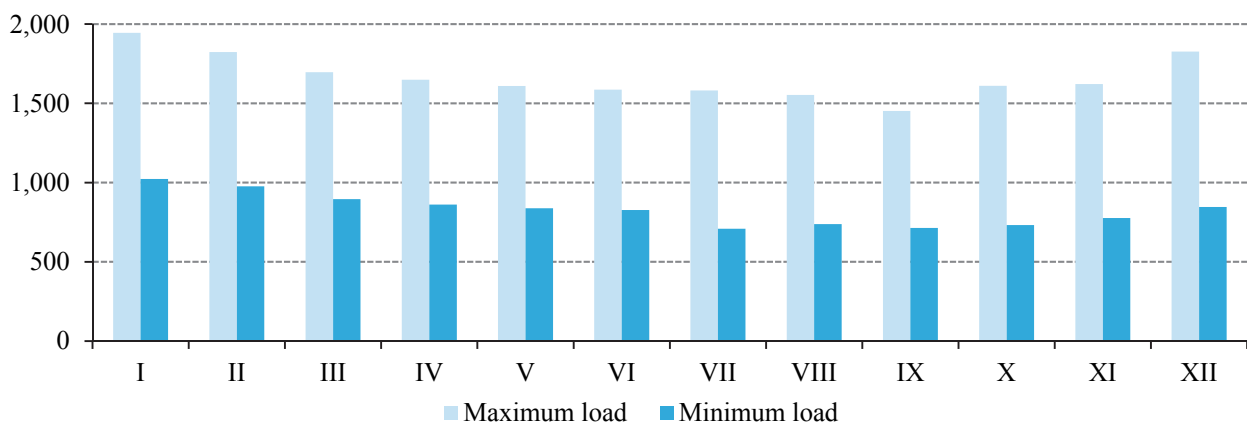
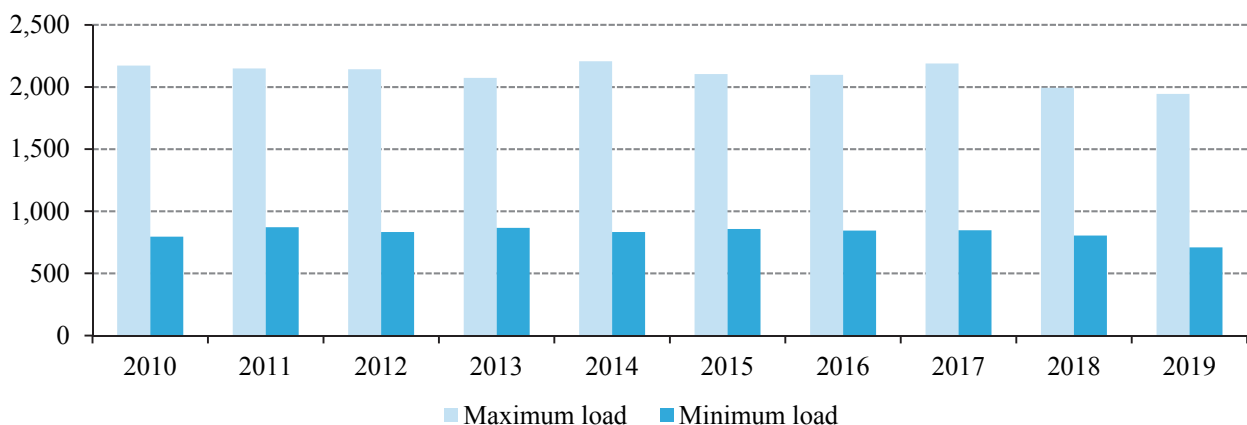


Figure 2. Maximum and minimum annual load in the period from 2010 to 2019 (MW)



was registered. Monthly deviations of the BIH power system in 2019 are presented in Figure 3. A maximum hourly electricity deficit (downward deviation) was recorded in April amounting to 186 MWh/h, while a maximum surplus (upward deviation) was recorded in September 2019 amounting to 171 MWh/h.

Total electricity in the transmission network amounted to 18,258.9 GWh, which is 10.17% less than in 2018. Transmission losses amounted to 323.9 GWh, or 1.77% of total energy in the transmission system. The trend of reducing distribution losses continued and they amounted to 933.3 GWh or 9.2% in relation to gross distribution consumption, which was the lowest level recorded in the history of the BIH electric power sector. Percentage of transmission and distribution losses is presented in Figure 4.

In 2019 PHP Čapljina withdrew 96 GWh from the transmission system, while total production of this power plant amounted to 945 GWh.

Data on energy not supplied (ENS) due to unplanned interruptions (ENS_{unpl}), as well as energy not supplied due to planned interruptions (ENS_{pl}) in the BIH power system over the past five years are provided in Table 1. Total energy not supplied, after last year's significant decrease, slightly increased in 2019.

Figure 3. Monthly deviations of BIH power system towards SHB Control Block in 2019 (MWh)

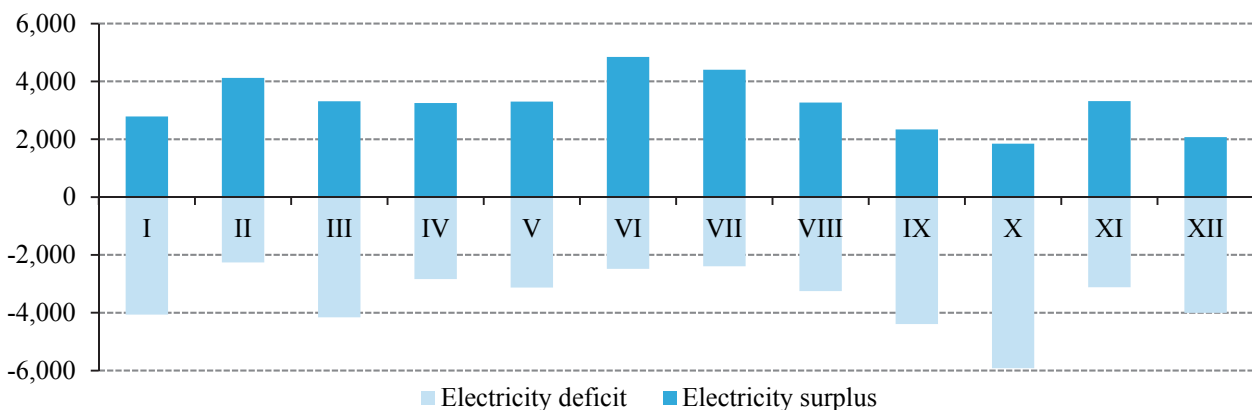


Figure 4. Transmission and distribution losses

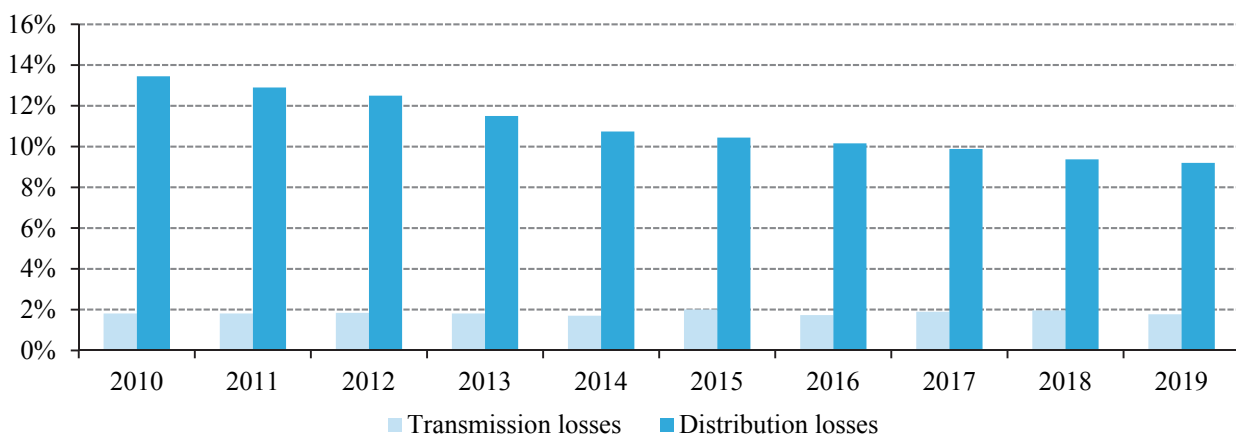


Table 1. Energy not supplied due to interruptions in the transmission network

	2015		2016		2017		2018		2019	
	MWh	min	MWh	min	MWh	min	MWh	min	MWh	min
ENS _{unpl}	467.22	21,017	528.46	15,975	1,362.35	16,594	1,181.83	13,661	1,095.03	21,370
ENS _{pl}	1,244.37	58,363	287.16	25,032	1,633.75	24,817	1,377.39	24,297	1,100.55	17,178
Total	1,711.59	79,380	815.62	41,007	2,996.10	41,411	2,559.22	37,958	2,159.59	38,548

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

Month	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
AIT ₂₀₁₅	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 ₂₀₁₆	0.3549	1.0903	0.1659	0.0799	0.9460	4.6876	13.4773	5.6841	5.9238	0.8767	1.8523	2.3055
AIT ₂₀₁₇	5.3071	2.7625	3.0089	11.4069	4.2718	10.4772	9.7140	4.2352	8.5023	15.9486	3.2145	4.8497
AIT ₂₀₁₈	0.2046	9.5267	3.2354	1.7183	2.2664	6.3035	3.0782	5.2013	3.3805	0.1153	3.1875	0.2781
AIT ₂₀₁₉	0.1233	14.0321	8.8927	10.0696	3.3278	9.0077	13.4418	3.6580	9.3859	6.2718	0.6274	0.9416

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

In 2019, several contracts on construction, reconstruction and rehabilitation of transmission facilities were implemented. In September 2019, a new 110 kV TL Gacko – Nevesinje was put into operation, which for the first time ensured supply of substations SS 110/x kV Gacko and SS 110/x kV Nevesinje from two sides, thus significantly improving the quality of supply in this part of Bosnia and Herzegovina.

A new cross-border transmission line TL 400 kV Trebinje– Lastva (Montenegro) was put into trial operation on 2 April 2019. With this the new Lastva substation was connected to the transmission network with the entry/exit system to the existing transmission line TL 400 kV Trebinje – Podgorica 2. The construction of this substation is in the function of connecting a high voltage direct current (HVDC) transmission submarine cable between Montenegro and Italy.

This HVDC cable was put into regular operation at the end of December 2019 while the use of its nominal capacity was planned for the beginning of 2020. The capacity flows projected up to 600 MW will have a significant impact on the capacity flows in the power system of Bosnia and Herzegovina. This is the reason why the ISO BIH actively participated in the development of the Power System Defence Plan of Montenegro.

At the beginning of January 2019, the first synchronisation of generators to the power system was conducted at the Jelovača wind farm with installed capacity of 36 MW (18×2 MW), thus starting its trial operation. After all functional tests were completed at the end of 2019, this power plant, which is connected to

the transmission network through the substation SS 110/33 kV Jelovača, obtained approval of the Independent System Operator in Bosnia and Herzegovina for regular operation.

The secondary control services in 2019 were provided by JP Elektroprivreda Bosne i Hercegovine d.d. Sarajevo, MH Elektroprivreda Republike Srpske, a.d. Trebinje and JP Elektroprivreda Hrvatske zajednice Herceg Bosne d.d. Mostar. During the year, tertiary control was activated 100 times, of which 83 times as upward tertiary control and 17 times as downward tertiary control, of which 21 times in March 2019. However, the nominated tertiary control volumes were often insufficient.

In 2019, 547 outages were registered in the transmission system, of which 80, 218 and 220 at 400 kV, 220 kV and 110 kV voltage level respectively, and nine failures of 400/220 kV, 400 MVA transformers, four failures of 400/110 kV, 300 MVA transformers and 16 failures of 220/110 kV, 150 MVA transformers were registered.

In the past year, 58 failures of thermal power blocks and 13 failures of hydro generators were registered. Missing energy in the system was compensated through the activation of tertiary control.

Similar to the previous years, in 2019 voltage levels in the power system often exceeded the values prescribed by the Grid Code, in particular in the 400 kV and 220 kV network. The highest voltage levels in the 400 kV network were registered at SS Mostar 4 in December when the measured voltage level reached 453.56 kV. In June, the highest voltage level in the 220 kV network was measured at the Trebinje substation (260.90 kV) while in June the highest voltage level in the 110 kV network was measured at the Sarajevo 10 substation (127.47 kV).

The main reason for occurrence and duration of high voltage levels was under-loaded 400 kV transmission lines during low demand periods which generate large volumes of reactive power. The occurrence of high voltage levels is a regional problem and, consequently, solutions to this problem are sought at regional level.

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 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 network under the responsibility of Elektroprenos BIH, while

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

	2015	2016	2017	2018	2019
SAIFI Planned interruptions	0.65	0.55	0.92	0.76	0.64
SAIFI Unplanned interruptions	0.90	0.97	0.81	0.69	0.99
<i>Total</i>	1.56	1.52	1.73	1.45	1.63
SAIDI Planned interruptions (min/customer)	108.53	92.92	114.66	94.68	73.71
SAIDI Unplanned interruptions (min/customer)	76.00	68.61	48.55	53.31	63.24
<i>Total(min/customer)</i>	184.52	161.53	163.21	147.99	136.95

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

	2015	2016	2017	2018	2019
SAIFI Planned interruptions	4.12	3.53	3.93	3.33	2.76
SAIFI Unplanned interruptions	7.76	5.78	7.01	4.96	4.93
<i>Total</i>	11.88	9.31	10.94	8.29	7.69
SAIDI Planned interruptions (min/customer)	365.77	399.12	324.97	255.11	239.55
SAIDI Unplanned interruptions (min/customer)	532.99	371.99	465.81	314.55	453.10
<i>Total (min/customer)</i>	898.76	771.18	790.78	569.66	692.68

Table 4 also includes interruptions in middle voltage feeders in the Transmission Company's substations caused by disturbances in the distribution network which are significantly less favourable, 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 electric power system and the map of the system are provided in Annexes A and B respectively.

3.7 Tariff Proceedings

Tariffs for Electricity Transmission Services

In November 2017, Elektroprenos Bosne i Hercegovine filed the application for modification of the electricity transmission tariffs 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 5.163 EUR/MWh was requested in the application, which would be a 13.6% increase.

Tariffs are set pursuant to the criteria 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*. In tariff setting proceedings, to the maximum 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 at which facts in the tariff proceedings were determined was held on 18 December 2018. With the electricity market development in BIH, market players' 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 participated in these proceedings, which enabled them to directly participate in the proceedings before the regulatory authority.

A final decision in this proceeding was passed on 8 May 2019. By this decision the tariff for electricity transmission services remained at the same level applicable since 1 May 2017. Consequently, the part of the transmission network charge pertaining to energy remains 2.955 EUR/MWh while the part of the transmission network charge pertaining to capacity amounts to 0.753 EUR/kW (an average transmission network charge amounts to 4.545 EUR/MWh).

On 11 November 2019 Elektroprenos Bosne i Hercegovine filed a new application for modification of the electricity transmission tariffs requesting an increase of the average tariff for electricity transmission services to 6.054 EUR/MWh, i.e., a 33.2% increase

A formal public hearing in these proceedings was held on 17 December 2019 in which five interveners actively participated in addition to the regulated company. At the end of December 2019 all participants received the *Presiding Officer's Report* for comments. The tariff setting proceedings for the electricity transmission services will continue in 2020.

Tariffs for Operation of Independent System Operator; Tariffs for System and Ancillary Services

Pursuant to the legal obligation to submit for consideration the applications for revenues and expenditures in the following year as well as costs that the Company plans to include in its tariffs, in October 2018 the ISO BIH filed such an application, in which it presented and explained planned revenues, expenditures and costs in 2019. The revenue requirement for 2019 amounting to EUR 4,937,717 was requested, the requested tariff for operation of an independent system operator paid by customers amounted to 0.359 EUR/MWh, while the tariff paid by producers amounted to 0.040 EUR/MWh. The proposed tariff for system service amounted to 3.308 EUR/MWh.

A formal public hearing in these tariff proceedings was held on 11 December 2018 in which the participation of six entities with intervener status was allowed. On that occasion, the regulated company provided an additional explanation of planned

expenditures and costs for 2019 making corrections in its application according to which the tariff paid by customers, the tariff paid by producers and the tariff for system service would amount to 0.369 EUR/MWh, 0.032 EUR/MWh and 3.063 EUR/MWh respectively. At the end of December 2018, the *Presiding Officer's Report* was distributed to the regulated company and all interveners for comments.

Based on the analyses of the applicant's required costs and expenditures and other available documents, the State Electricity Regulatory Commission passed a *Decision on tariffs for system and ancillary services* and a *Decision on tariff for ISO operation* on 24 January 2019 and 19 February 2019 respectively.

The tariff for ISO operation increased approximately 20%. The Decision sets forth that the tariff for ISO operation is paid by producers for energy injected into the transmissions system in the amount of 0.024 EUR/MWh while customers for energy withdrawn from the transmission network pay the tariff in the amount of 0.288 EUR/MWh.

While determining the tariff for system service its financial scope for 2019 was set to the amount of EUR 30,781,607. As energy withdrawn by customers from the transmission system in BIH in 2019 amounted to 11,982,680,000 kWh, the calculated value of the tariff for system service amounted to 2.5687 EUR/MWh, which is 57.6% higher than the previously determined tariff. With a view to avoiding price hikes, the Commission chose to gradually increase the tariff for system service and decided to increase this tariff by 30% to the amount of 2.1183 EUR/MWh, announcing that the adjustment of the tariff for system service would be initiated if required.

On 27 March 2019 a *Decision on amendment to the Decision on tariffs for system and ancillary services* was passed whereby this tariff increased by 11.8% amounting to 2.3683 EUR/MWh.

SERC continued to monitor developments on the balancing market throughout 2019, and as the need arose, on 31 December 2019 adopted a new *Decision on tariffs for system and ancillary services* whereby this tariff increased again, this time by 12% amounting to 2.6526 EUR/MWh.

On 31 October 2019, the Independent System Operator in Bosnia and Herzegovina filed a new application in which it presented and explained the planned revenues, expenditures and costs for 2020.

The requested tariff for operation of an independent system operator paid by customers amounts to 0.487 EUR/MWh (a 69.15% increase), while the tariff paid by producers amounts to 0.036 EUR/MWh (a 39.92% increase) with the revenue requirement for 2020 amounting to EUR 5,722,326. The proposed tariff for system service amounts to 3.7115 EUR/MWh

or 39.92% more than the tariff for system service set on 31 December 2019.

A formal public hearing in these tariff proceedings, in which five interveners actively participate in addition to the regulated company, was held on 16 December 2019. At the end of December 2019 the *Presiding Officer's Report* was distributed to all participants in the proceedings for comments. The proceedings for setting of the tariff for ISO operation and the tariffs for system and ancillary services will continue in 2020.

Tariffs for Electricity Customers in the Brčko District of BIH

The proceedings for setting of the tariff rates for electricity distribution services and electricity supply within the universal service in the Brčko District of BIH were initiated on 13 November 2019, following an application by the regulated company submitted on 8 November 2019.

JP Komunalno Brčko, as the public supplier in the Brčko District of BIH which purchases all the electricity for the supply of its customers on the wholesale electricity market requested an increase in the tariffs which had been applicable since 1 January 2018, i.e., the amendments to the decisions on tariffs which would enable the following:

- A 6.97% increase in the costs of distribution network charge,
- A 6.96% increase in an average price for the supply within the universal service for the category 'other consumers' (small customers, that is, commercial customers connected to 0.4 kV) and households by 5.6% and 7.4% respectively,
- A profit of the public supplier amounting to 2% of electricity purchase costs for the supply within the universal service, and
- A price increase in the tariff element 'active electric power' for the first tariff group under the category 'other consumers'.

A formal public hearing in these proceedings, in which there were no requests for intervener status, was held on 11 December 2019. At the end of the same month, the *Presiding Officer's Report* was distributed to the regulated company for comments. The proceedings for setting of the tariff rates for electricity distribution services and electricity supply within the universal service in the Brčko District of BIH will continue in 2020.

3.8 Electricity Market

In Bosnia and Herzegovina in 2019 electricity generation amounted to 16,074 GWh, which is 1,799 GWh, or 10.1% less in comparison to the previous year. Unlike in 2018 when hydrological conditions were very favourable, the situation in 2019 was within the limits of a ten-year average which resulted in generation by hydropower plants amounting to 5,650 GWh and a decrease in generation of 650 GWh, or 10.3% in comparison to the previous year.

Generation by thermal power plants was also reduced amounting to 9,613 GWh, which is 10.2% less in comparison to the previous year, with the highest decrease in generation recorded by TPP Kakanj (27.9%) and TPP Tuzla (13.7%).

After the Mesihovina Wind Farm with installed capacity of 50.6 MW was put into operation in 2018, which was the first facility of this kind connected to the transmission system, in 2019 the Jelovača Wind Farm with installed capacity of 36 MW was also put into operation. Total generation of these two power plants located in the south-west of BIH amounted to 254 GWh. Small-scale renewable generation amounted to 536.94 GWh, or

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

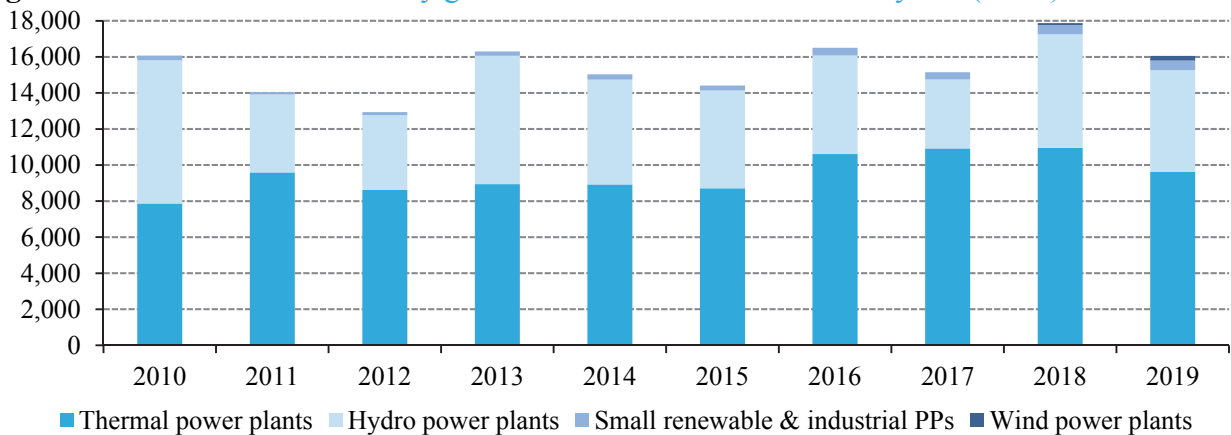
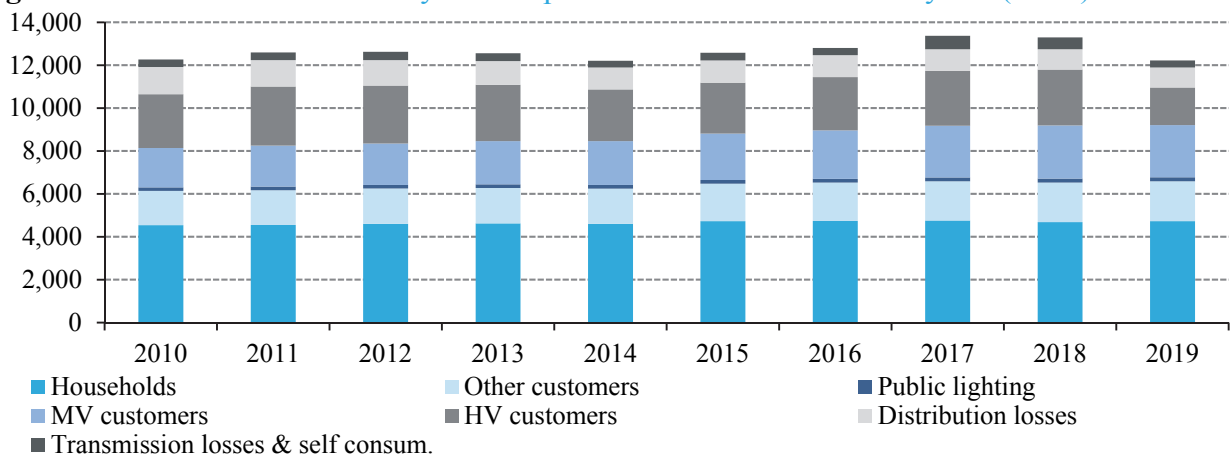


Figure 6. Break-down of electricity consumption in BIH over the last ten years (GWh)



7.8% more in comparison to 2018, when generation from these sources amounted to 498.21 GWh. A dominant share in this category is still held by small hydro power plants with 497.99 GWh (469.39 GWh in 2018) while solar power plants, biomass and biogas power plants and wind power plants connected to the distribution system produced 30.04 GWh (20.65 GWh in 2018), 8.84 GWh (8.15 GWh in 2018) and 0.07 GWh (0.02 GWh in 2018) respectively. Independent producers have a significant share in small-scale renewable generation, whose facilities produced 427.18 GWh (79.6%), while the remaining share (20.4%) was produced by power plants owned by the public utilities. Industrial power plants produced 20.82 GWh. A breakdown of generation over the last ten years is provided in Figure 5 while a break-down of consumption in BIH is provided in Figure 6.

Total electricity consumption in BIH in 2019 amounted to 12,330 GWh, or 7.3% less than in the previous year. Consumption of customers connected to the transmission network (HV customers) decreased by 32.8% amounting to 1,751 GWh, which is 853 GWh less in comparison to 2018. Consumption of customers connected to the distribution network slightly increased amounting to 10,143 GWh. Analysed by the end

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

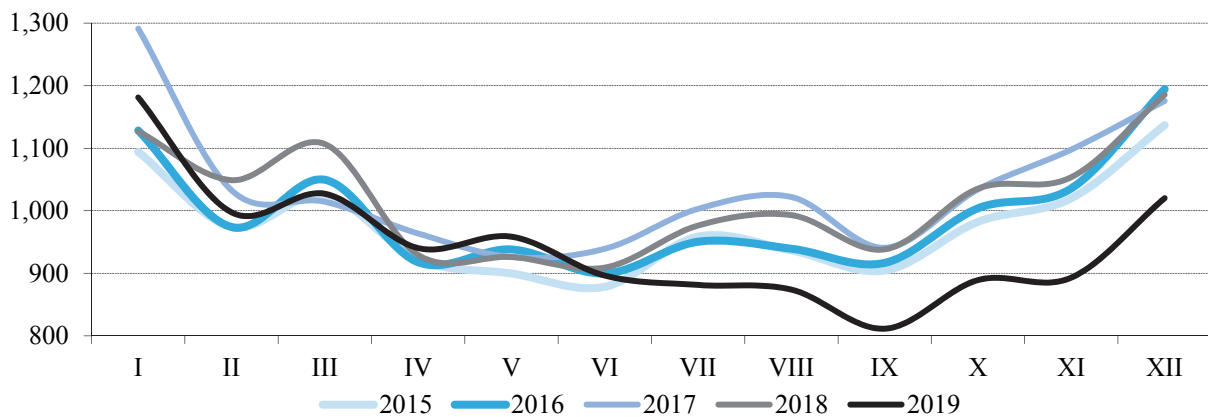
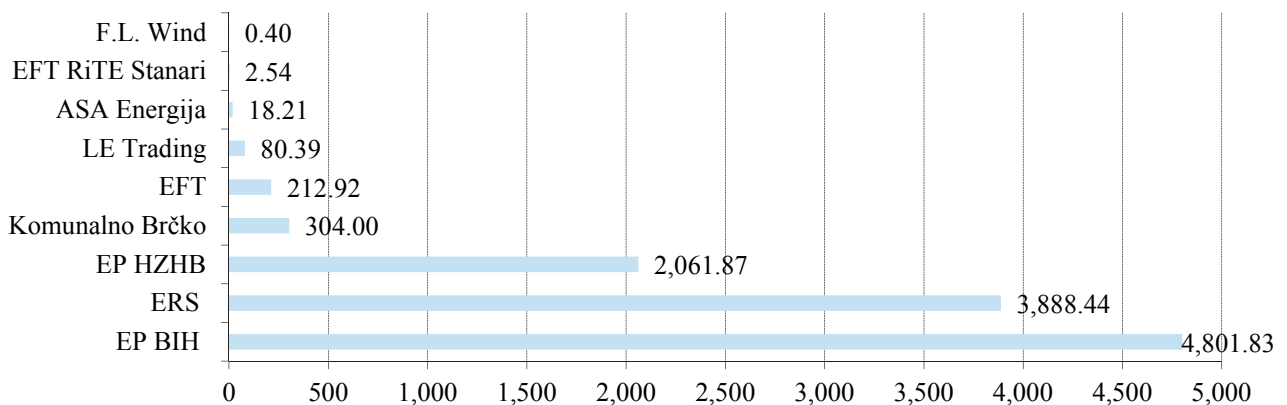


Figure 8. Energy withdrawn from the transmission network in 2019 per supplier (GWh)

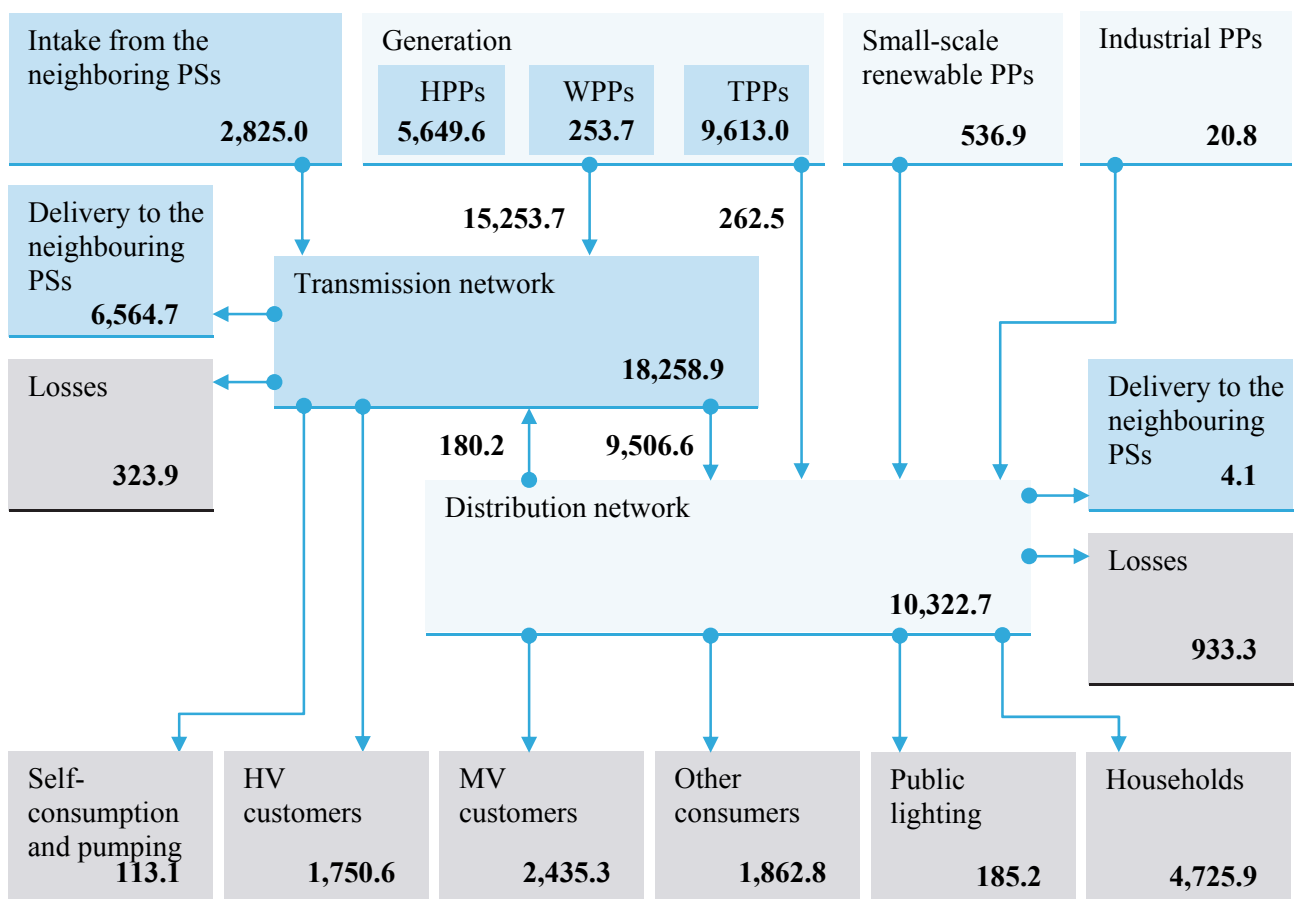


customer categories connected to the distribution system, a decrease was noted among customers at 35 kV (12.7%), while a modest increase was noted among other consumption categories as follows: 0.9% by households and customers connected to 10 kV, 1.0% by other consumers and 2.1% by public lighting. It is important to note that consumption by households in 2019 increased amounting to 4,726 GWh after a drop in 2018.

A total of 11,370 GWh of electricity was withdrawn from the transmission system, which is 860 GWh or 7.0% less in comparison to 2018. This result is mostly the consequence of the closure of the Aluminij Mostar factory which took place on 10 July 2019 and reduced operation of PHP Čapljina in the pumping mode of operation (96 GWh in 2019 in comparison to 137 GWh in 2018). Data on energy withdrawn from the transmission system 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 2019 amounted to 3,744 GWh, which is 835 GWh less than in the previous year. A descriptive overview of electric power balance volumes realised in 2019 is provided in Figure 9. The detailed balance volumes and electric power indicators of BIH are provided in Annexes C and D respectively.

Figure 9. Balance volumes realised in 2019 (GWh)



Regional Electricity Market

On the electricity market in South East Europe, which is of direct interest to electric power entities in BIH, a downward trend in wholesale electricity prices was present for several years. In 2017 this trend was discontinued while in 2018 electricity prices increased significantly. In 2019 these prices did not increase significantly, but they reached the very European top. The underlying reason is the energy deficit which has been increasing over time due to high carbon dioxide emission allowances (ranging from 23 to 27 EUR/t in 2019) which are paid in the EU member states for generation by coal-fired thermal power plants. Consequently, generation by thermal power plants is reduced or shut down, which is not followed by investments and construction of renewable sources, which leads to even higher deficit in the region and maintains the wholesale prices at a significantly higher level in comparison to the rest of Europe. Table 5 provides an overview of electricity prices on the power exchanges of relevance for the region of South East Europe.

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

<i>PX indices</i>	<i>Average price</i>	<i>Maximum price</i>	<i>Minimum price</i>
EPEX Germany	37.70	85.80	-42.24
EPEX Austria	40.09	85.84	-7.27
SIPX	48.72	133.18	8.23
HUPXDAM	50.31	106.94	20.66
OPCOM	50.25	122.10	7.01
SEEPEX	50.48	120.74	21.01
CROPEX	49.31	133.18	8.24

EPEX Germany – European Energy Exchange (EEX) index for Germany

EPEX Austria – European Energy Exchange (EEX) index for Austria

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

Electricity Market in BIH

In 2019, total electricity consumption in BIH amounted to 12,330 GWh, or 7.3% less than in the previous year. Customers connected to the transmission system withdrew 1,751 GWh, or 32.8% less, while customers connected to the distribution system withdrew 10,143 GWh, which is a slight increase in comparison to the previous year. Of this amount 9,209 GWh pertain to the withdrawal by end customers and 933 GWh to losses in the distribution network. Total sale to end customers amounts to 10,960 GWh, which is a decrease of 832 GWh, or 7.1%.

Table 6. Number of electricity customers in BIH

Supplier	110 kV	35 kV	10 kV	Other consumers	Households	Public lighting	Total
Elektroprivreda BIH	6	62	925	64,657	701,439	4,586	771,675
Elektroprivreda RS	4	36	1,067	33,839	528,076	865	563,887
Elektroprivreda HZHB	1		225	15,319	179,132	1,844	196,521
Komunalno Brčko		1	31	4,319	30,915	423	35,689
Other suppliers	2	1	9	2			14
Total	13	100	2,257	118,136	1,439,562	7,718	1,567,786

The number of electricity customers in BIH continues to grow – during the year it increased by 14,347, thus reaching 1,567,786 at the end of the year (Table 6). The number of household customers increased by 12,631.

The competent regulatory commissions do not to 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 end of 2014, regulation of supply tariffs for all customers was abolished except for households and customers belonging to the category of ‘other consumers’ (small customers, that is, commercial 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 chose 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 at regulated prices.

In 2019, the option of being supplied within the universal service was used by all households in BIH and most of the customers belonging to the category of ‘other consumers’ (small customers, that is, commercial customers connected to 0.4 kV). An average electricity price for these customers amounted to 77.870 EUR/MWh and it was slightly higher than in 2018 when it amounted to 77.614 EUR/MWh. An average price for households amounted to 72.501 EUR/MWh (a 0.2% decrease), while an average price for customers belonging to the category of ‘other consumers’ was 91.521 EUR/MWh, or 1.2% higher in comparison to 2018.

These data also clearly show that the Regulatory Commissions in BIH 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.’ The evident trend of reducing the ratio of the average prices between small commercial customers and households in the past several years in BIH is clearly visible in Figure 10. According to the 2019 data, cross-subsidies between commercial customers and households amount to 26.3% on average, with the lowest values recorded among the customers

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

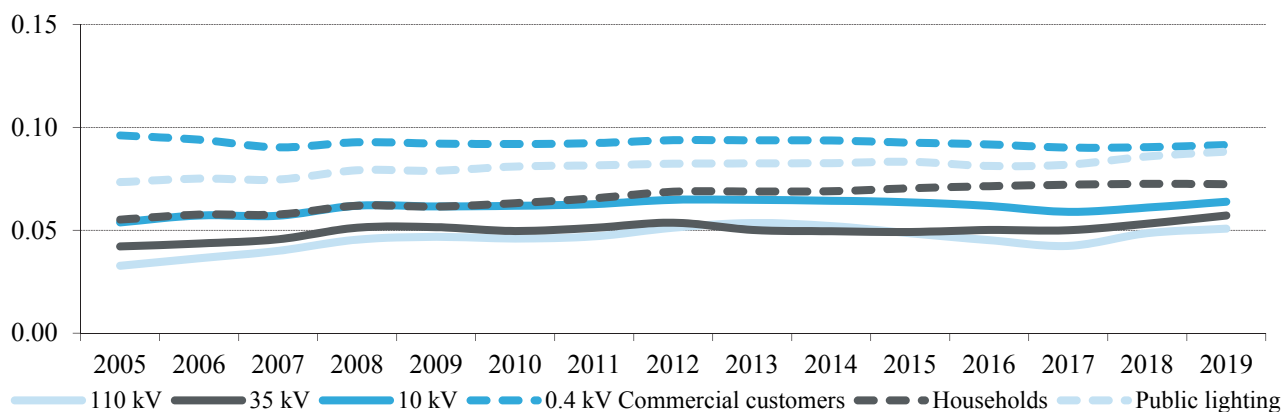
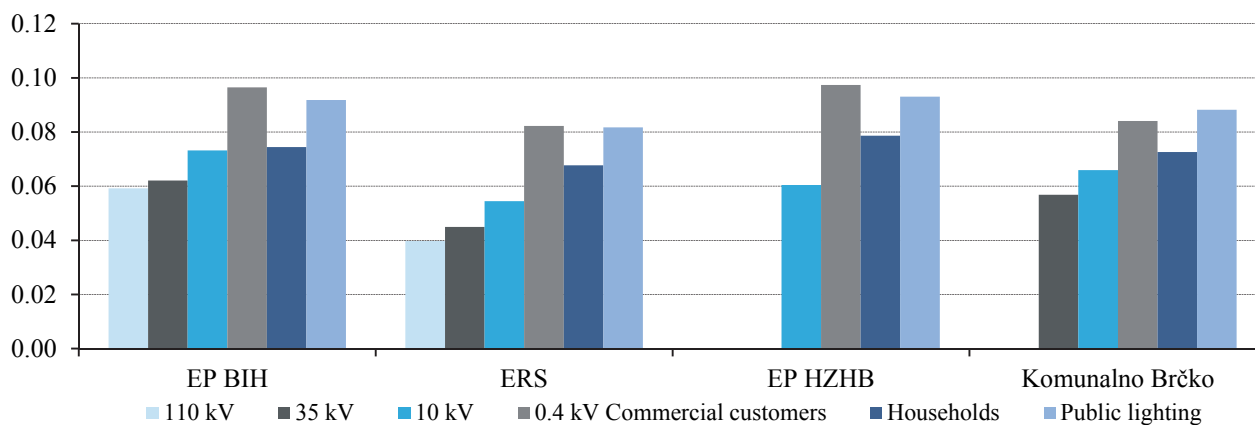


Figure 11. Average electricity prices by public utility, excluding VAT (euro cent/kWh)



supplied by Komunalno Brčko (15.7%), while the highest values were recorded among the customers supplied by Elektroprivreda BIH (29.6%). There is an obvious need for further reduction of cross-subsidies through additional measures of the Regulatory Commissions and efficient functioning of the market, thus complying with the basic regulatory principle of reflecting real costs in price formation. This would facilitate market competition also in supply of households, i.e., open up possibilities for suppliers on the market to offer more favourable prices and become competitive in this market segment as well. Trends of average selling electricity prices for end customers in BIH are presented in Figure 10, while Figure 11 gives an overview of average electricity prices per public suppliers and customer category in 2019.

As of 1 January 2016, on the retail market the first cases of supplier switching were registered among the customers connected to the distribution system since when their number varies on a monthly basis. In 2019, the largest number of customers was supplied by their traditional suppliers (the so-called ‘incumbents’). In addition to the incumbents four more suppliers were active on the retail market: HEP Energija d.o.o. Mostar, Petrol BH Oil Company d.o.o. Sarajevo, ASA Energija d.o.o. Sarajevo and ICT d.o.o. Široki Brijeg (which conducted its business operations under the

name Proenergy in the previous period). They delivered 50.41 GWh and 2.18 GWh to customers at 10 kV and customers falling under the category other consumers respectively. Furthermore, in the transmission system amounts of 80.39 GWh and 212.92 GWh were registered which LE Trading and Energy Financing Team d.o.o. Bileća sold to Aluminij d.d. Mostar and Company BSI d.o.o. Jajce respectively as well as 18.21 GWh which ASA Energija d.o.o. Sarajevo sold to Željezara Ilijaš (Steel Plant Ilijaš) d.d. Ilijaš and Prevent CEE d.o.o. Sarajevo. In addition, Elektroprivreda BIH supplied one 10 kV customer located in the distribution area operated by Elektroprivreda HZHB with a delivery amounting to 1.81 GWh. To sum up these purchases, in 2019 a total of 365.92 GWh was delivered to customers that switched suppliers, or 3.3% of total energy withdrawn by end customers in BIH. In the previous period, tens of thousands of customers changed the conditions of supply by modifying the contract with their previous traditional suppliers, thus choosing on the open market the supply offer that suited them best. A total of 6,588.78 GWh was delivered to the customers supplied within the universal service (60.1% of total consumption by end customers), while 4,371.07 GWh (39.9%) was delivered to the customers for whom prices are not regulated.

Trading on the wholesale market in BIH, which is based on bilateral sales contracts between suppliers, is significantly more dynamic. Although this market has not been institutionalised yet, the result of numerous bilateral contracts is significant – in 2019, a total of 15 licensed entities were active and traded 5,793,040 MWh. In the past two years a decrease in the physical scope of transactions has been obvious, which correlates to a price increase on the wholesale market, thus reducing the scope for smaller traders and being favourable to the incumbents (Figure 12.). However, taking into consideration the price levels reached on the wholesale market, it is estimated that a total financial scope of transactions does not decrease at the same rate as the physical scope.

Figure 12. Overview of trading on the wholesale market in BIH in 2019 (MWh)

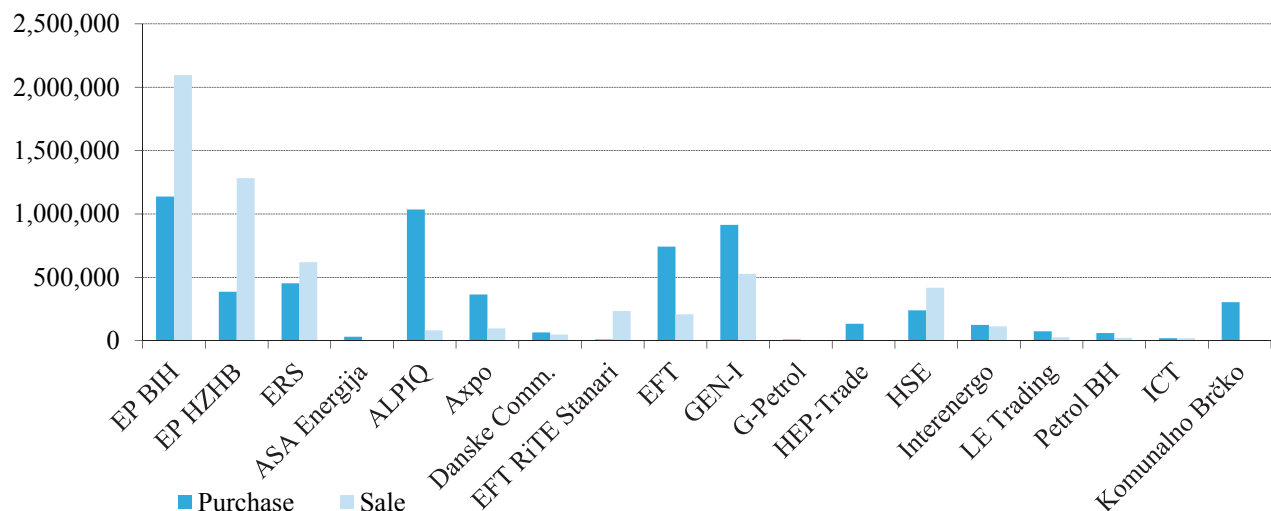


Table 7. Values of purchased ancillary services

<i>Ancillary service</i>	<i>2018 (EUR)</i>	<i>2019 (EUR)</i>	<i>Difference (%)</i>
Secondary control – capacity	5,737,769	5,482,044	-4.5
Tertiary control – capacity	2,943,911	2,651,842	-9.9
‘Upward’ balancing energy	3,227,452	3,329,673	3.2
‘Downward’ balancing energy	-1,664,455	-1,082,141	-35.0
Losses in the transmission system & compensations	20,957,941	22,112,535	5.5
Total	31,202,618	32,493,953	4.1

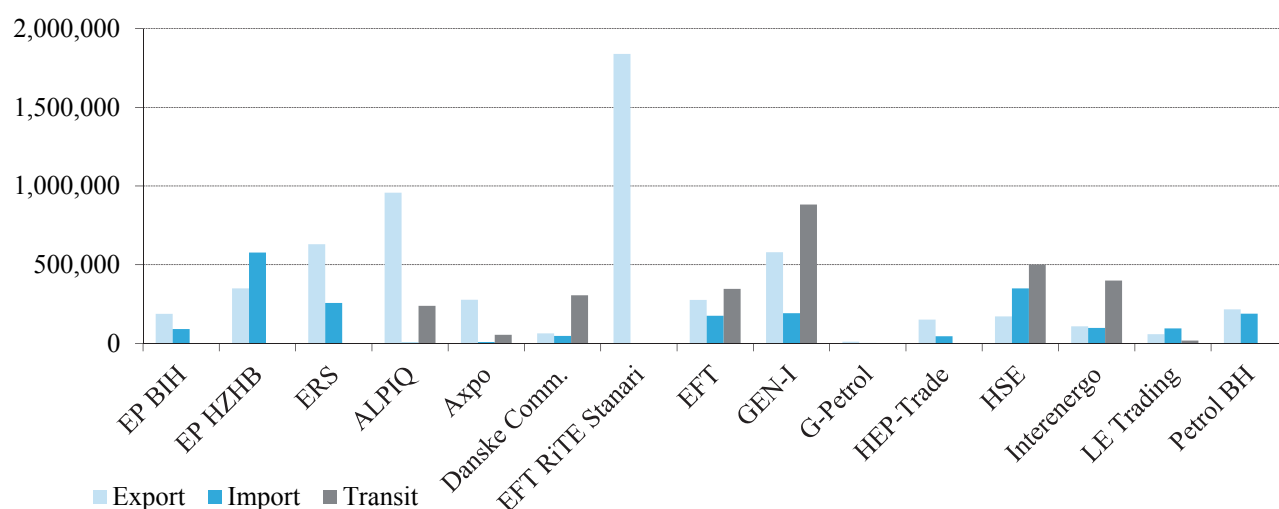
In addition to the wholesale and retail markets, in BIH the balancing market operated by the Independent System Operator in BIH is also functional. Essentially, it is a monopsony market, where on the demand side there is only one entity – the ISO BIH, while on the supply side there are mostly generators providing ancillary services (capacity and energy for secondary and tertiary control and energy for covering losses in the transmission system). The calculation of deviations (imbalances) of balance responsible parties from the daily schedule is also conducted on the balancing market in terms of energy and prices. Imbalance prices are determined based on prices of balancing energy on an hourly basis. All transactions between suppliers on one side and the ISO BIH on the other are conducted based on the market principles through annual and monthly tenders while prices of the balancing energy are formed through offers of secondary and tertiary control by suppliers on a day-ahead hourly basis.

The total value of ancillary services purchased on the balancing market in 2019 exceeds EUR 32.4 million of which approximately 2/3 pertain to the purchase of energy to cover losses in the transmission system. The increase in wholesale electricity prices caused the significant increase in this cost in 2019 as presented by the breakdown provided in Table 7. At the same time, by the provision of system service to suppliers withdrawing energy from the transmission system and the calculation of deviations from the daily schedule by balance responsible parties, the ISO BIH made an income of EUR 32,103,286 of which EUR 25,549,444 and EUR 6,548,729 were collected for the system service tariff and imbalances respectively. Furthermore, exports and imports of cross-border balancing services were registered amounting to EUR 245,334 and EUR 72,280 respectively.

Cross-Border Trade

Good connections of the BIH system with the neighbouring electric power systems enable a high level of electricity exchange with the neighbouring countries. In 2019, a total of 5,879 GWh was exported, or 9.2% less than in the previous year. A total of 15 entities exported electricity, among which EFT – Rudnik i Termoelektrana Stanari with 1,840 GWh was the leader in terms of

Figure 13. Overview of cross-border transactions by entities in 2019 (MWh)



the export scope, followed by Alpiq Energija BH, Elektroprivreda Republike Srpske, GEN-I, Elektroprivreda Hrvatske zajednice Herceg Bosne with 958 GWh, 630 GWh, 579 GWh, 349 GWh respectively etc.

Electricity imports amounted to 2,133 GWh, which is a 14.4% increase compared to the previous year. Among the 14 entities importing to BIH, the highest imports were achieved by Elektroprivreda Hrvatske zajednice Herceg Bosne (577 GWh), HSE BH Energetsko preduzeće (349 GWh), Elektroprivreda Republike Srpske (257 GWh), GEN-I (192 GWh), Petrol BH Oil Company (189 GWh) and Energy Financing Team (175 GWh). An overview of cross-border transactions is provided in Figure 13. The largest scope of electricity trading is traditionally achieved with Croatia followed by Serbia and Montenegro (Table 8).

In 2019, registered electricity transits through the BIH transmission system amounted to 2,747 GWh, which is a decrease of 212 GWh, or 7.2% in comparison to 2018. Transit flows are of special importance because they are used as the basic element to calculate revenues within the *Inter-TSO Compensation Mechanism* (ITC mechanism), which was described in more detail in earlier SERC Reports on Activities. Total revenues achieved by BIH on this basis in the first ten months of 2019 amounted to EUR 519,386, which is approximately the same as the revenue

Table 8. Cross-border trade per border, including registered transits (GWh)

Country	Exports	Imports
Croatia	3,524.9	2,825.2
Serbia	2,940.1	1,521.1
Montenegro	2,160.8	532.9
Total	8,625.8	4,879.2

Table 9. Revenues achieved from annual auctions

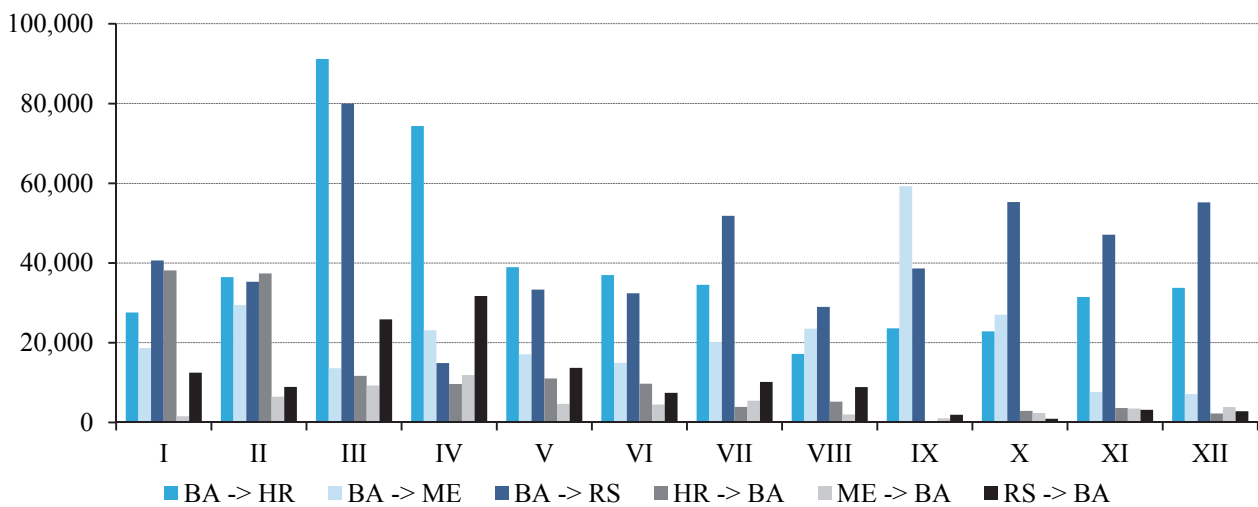
Year	Revenue (EUR)	Year	Revenue (EUR)
2013	1,041,054	2017	1,033,461
2014	1,485,638	2018	599,097
2015	558,187	2019	1,372,254
2016	486,765	2020	1,332,094

achieved in the same period last year. According to the ITC mechanism calculation rules, increased transit flows increase revenues, while increased import and export flows reduce revenues.

In 2019 as well, 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 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 2020 amounts to EUR 1,332,094. Unlike the previous period when the highest price was reached on the border with Croatia in the direction from BIH to Croatia, this year the highest price was reached on the border with Montenegro amounting to 0.56 EUR/MWh in the direction from BIH to Montenegro.

The revenues achieved to date on the basis of auctions for allocation of cross-border transmission capacities on an annual basis are provided in Table 9 while Figure 14 provides an overview of revenues based on monthly auctions per border and direction. The user of all revenues based on the allocation of the right to use cross-border transmission capacities as well as revenues achieved by the application of the ITC mechanism is Elektroprivreda BiH.

Figure 14. Revenues based on monthly and daily auctions, per border and direction (EUR)

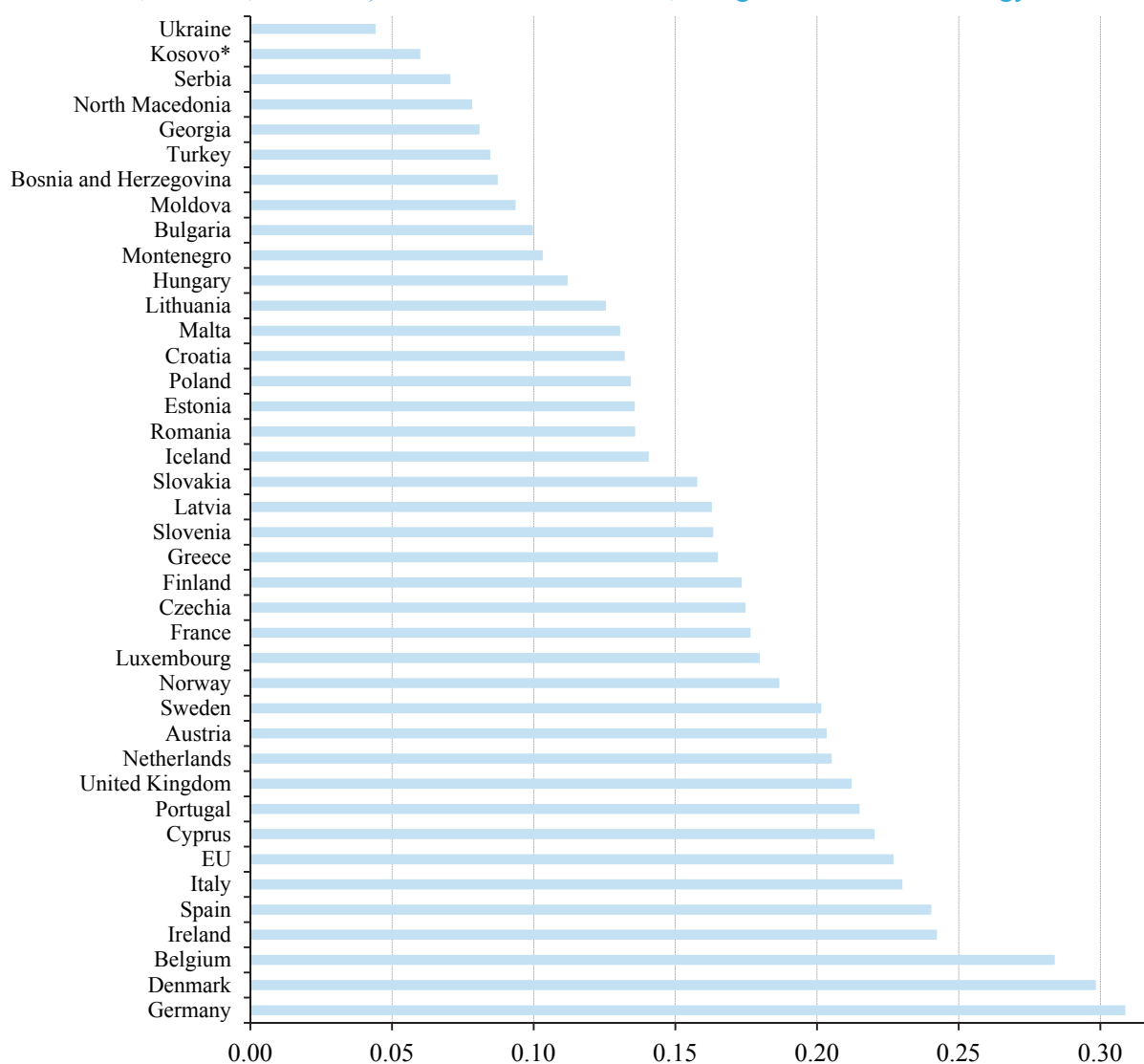


3.9 Energy Statistics

Aware of the relevance of objective presentation of data on energy volumes and electricity prices, in 2019 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 requirement of 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 EUR/kWh for households (annual consumption from 2,500 to 5,000 kWh) in the first half of 2019, using Eurostat methodology



Note: All taxes and levies included

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

Figure 16. A geographic overview of electricity prices for households (in EUR/kWh) in the first half of 2019, using Eurostat methodology

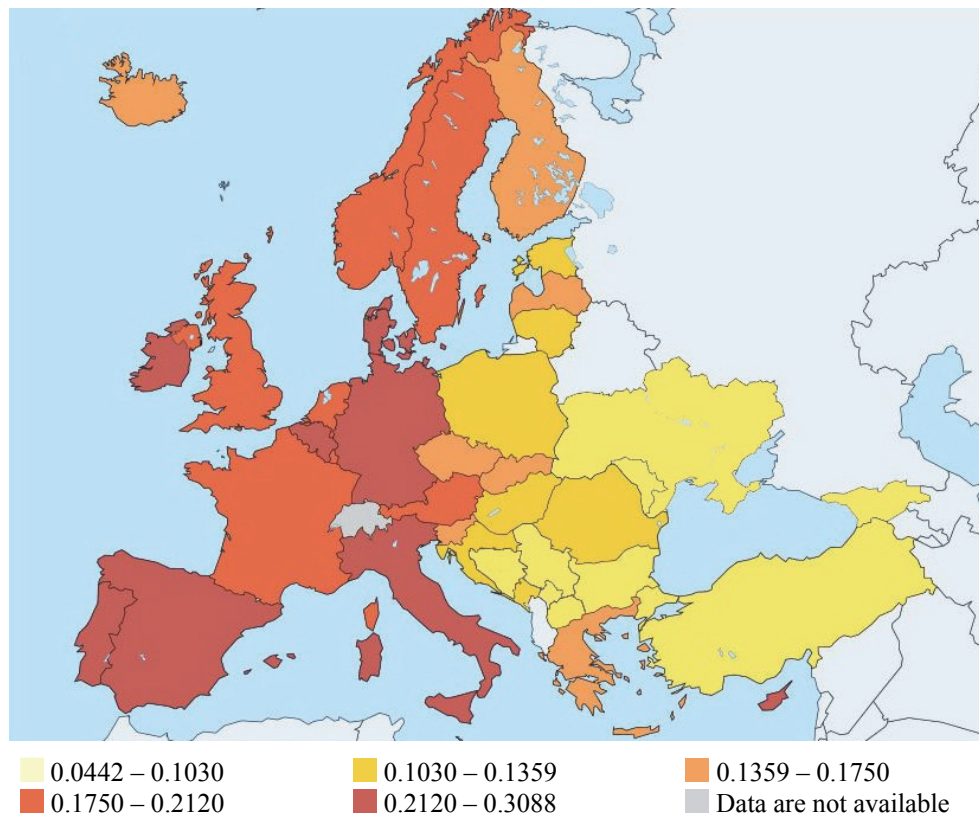
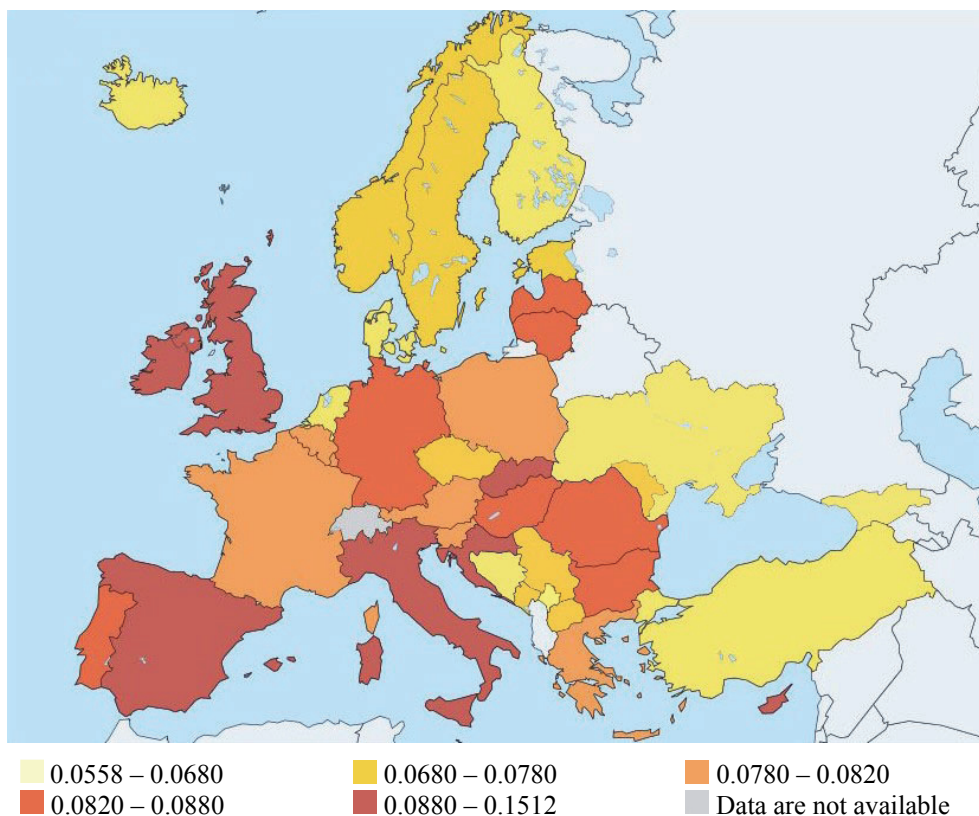


Figure 17. A geographic overview of electricity prices for industrial customers (in EUR/kWh) in the first half of 2019, using Eurostat methodology



The results of 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 the EU countries and some countries that are in the EU accession process (Figures 15 – 18).

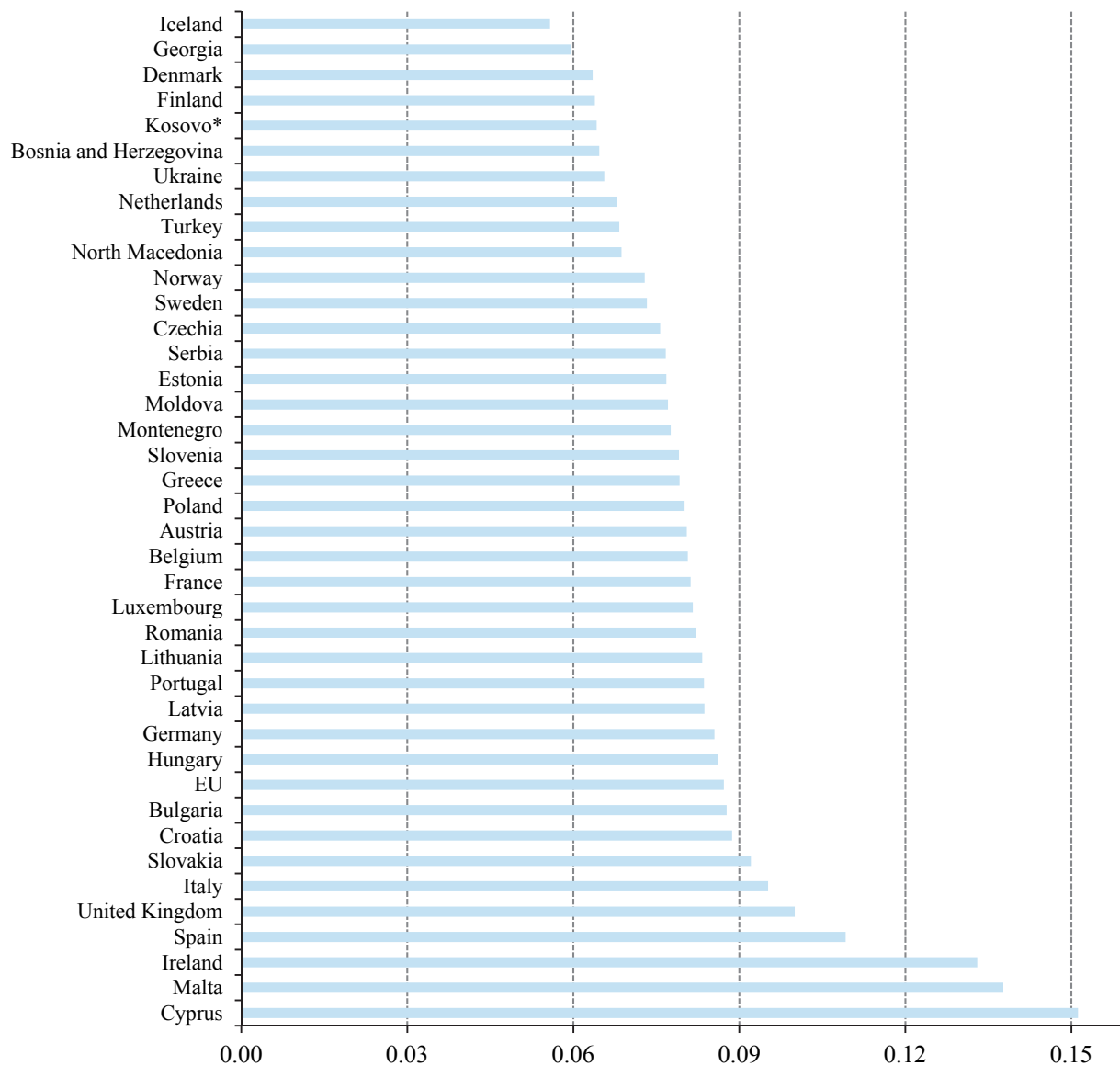
In addition to analysing data on the BIH electric power sector, SERC continuously collects and analyses data on regional markets, including data on the power exchanges seated in Leipzig, Budapest, Bucharest, Ljubljana, Belgrade and Zagreb (Table 5).

Based on a systematic approach to numerous electric power indicators, SERC provided quality answers to a number of inquiries by national and international institutions also in 2019 by presenting statistical data on the electric power sector of Bosnia and Herzegovina.



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 EUR/kWh for industrial customers (annual consumption from 500 to 2,000 MWh) in the first half of 2019, using Eurostat methodology



Note: All taxes and levies excluded

3.10 Other Key Activities

The State Electricity Regulatory Commission exchanged data with a number of state institutions in 2019 as well, including the Council of Ministers of Bosnia and Herzegovina, Ministry of Foreign Trade and Economic Relations of BIH, Directorate for European Integrations of the BIH Council of Ministers, Competition Council of BIH and BIH Agency for Statistics⁵, and prepared different types of information they needed. SERC gave a particular contribution to activities of 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 of BIH as a regulatory authority, through its activities SERC also cooperates with the Brčko District Government.

Since their establishment, the State Regulatory Commission and Entity Regulatory 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.

A proactive approach of SEC to the reform and the power sector development in BIH continued in 2019. The State Regulatory Commission gave a significant contribution to the preparation of the Instrument for Pre-accession Assistance (IPA II) titled *EU for Energy* under which support will be provided in the forthcoming period to the alignment of the BIH legislation with the EU *acquis* on energy and the continuation of the energy sector reform, including the development of energy and climate policies in BIH. Within these activities the institutions in Bosnia and Herzegovina at all governmental levels will be strengthened with the aim of performing the roles they have with regard to the transposition and implementation of the *acquis* on energy, energy policy planning and implementation as well as the energy market development. Furthermore, assistance will be provided with the implementation of infrastructure projects and public awareness raising with regard to the relevance of the use of sustainable energy.

Acting in line with its competence, SERC supports the development of an *Integrated Energy and Climate Plan of Bosnia and Herzegovina*. The Ministry of Foreign Trade and Economic Relations of BIH together with the relevant entity ministries are in charge of its development. SERC participates in the activities of an intradepartmental working group established to develop this plan as well as in activities of the Energy Efficiency Task Force, Task Force on Renewables and the Security of Supply and Internal Energy Market Task Force.

⁵ The State Electricity Regulatory Commission signed Memoranda of Understanding with the BIH Agency for Statistics and Competition Council of BIH on 19 April 2011 and 28 May 2014 respectively.

Furthermore, SERC provided significant support to the development of a *Single List of Infrastructure Project in Energy Sector for BiH*.

Acting as a national regulator in representing the interests of Bosnia and Herzegovina, SERC participated in several regional projects in 2019. In this context, under the WB6 Initiative, SERC took part in the technical assistance projects *Day-Ahead Market Integration in the Western Balkans 6* and *Cross-Border Balancing*. Furthermore, SERC participated in the regional projects organised by USAID and NARUC *Effective Regulation of Cybersecurity*, and in accordance with the fact that SERC has no competence in the gas sector, in the project *Gas Market Design and Natural Gas Transmission Grid Codes* as an observer. In addition, SERC took part in the implementation of the regional project *Electricity Market Integration* organised by USAID and the United States Energy Association (USEA).

Energy Investment Activity and Energy Policy Activity

In September 2019, the activities of the United States Agency for International Development (USAID) were completed under the project *Energy Investment Activity* (EIA). The Project focused on cooperation with and support to all key stakeholders in the energy sector in Bosnia and Herzegovina in the accession process and integration into the European Union (ministries, regulators, companies etc.).



Representatives of the State Regulatory Commission followed activities organised under the project and participated in the implementation of some components, in particular those relating to the regulatory activities. SERC expressed particular interest and directly participated in the implementation of activities in the field of sector investments, integration of renewables, energy efficiency, business processes of distribution system operators and data exchange in the sector as well as public relations and the development of the electricity price comparison tool.

After the successful organisation of the previous Energy Summits whereby a new model of dialogue was established on the latest issues in the energy sector, the EIA Project jointly with the German Agency for International Cooperation (GIZ) and the British Embassy in Sarajevo organised the Fifth Energy Summit in BiH in April 2019.



This Summit also brought together a number of partners from the national and entity parliaments, ministries and regulatory authorities, municipalities, electric power utilities, chambers of commerce, small and medium enterprises, non-governmental organisations and representatives of international organisations and donors active in the sector.

The driving topic of the Energy Summit was the transition of the energy sector in Bosnia and Herzegovina. The representatives of government institutions, international organizations, potential



investors and experts, discussed the key topics of the energy sector development: the reform of support schemes for renewable energy, biomass potentials, electricity market, energy efficiency, the perspective of the gas sector, and the role of the media and public in achieving a successful transition of the energy sector.

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

In September 2019, after the completion of the EIA project, a new five-year *Energy Policy Activity* project was launched under which USAID is helping Bosnia and Herzegovina attract investors and integrate its energy market into regional and EU markets. This project provides technical assistance to coordinate, manage, and improve the legal framework and transparency in the gas and electricity sectors.

Through this project, legislative and other measures at all levels of government will be developed and recommended to ensure that the BiH energy sector legislation is compliant with EU requirements. The project also supports a strong public outreach and awareness program to promote a liberalised market-based energy sector and educate general public about the benefits of the changes taking place in the energy sector.

Creating a transparent and competitive legislative and regulatory framework and integrating the BiH energy sector into the regional and EU markets is vital to attract new investments which contribute to the diversification of sources, prevention of corruption and the increased security of supply.

Promoting Renewable Energy in BiH

At the beginning of 2016, the German Agency for International Cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH*) 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 was completed at the end of 2019, were the respective national and entity ministries and regulators and operators for renewable energy, that is, incentive schemes.

The project provided technical assistance in the field of general improvement of the framework conditions for heat and electricity generation using renewable energy sources (RES). The concept of the project defined 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 was 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.

The *Final Report on the Concept for Reform of the Renewable Energy Support Scheme System in Bosnia and Herzegovina (Phase A)* was published in September 2018, and it was prepared by an interdepartmental working group, consisting of representatives of all key legislative and regulatory authorities in the energy sector in BIH, in particular with regard to RE support schemes. This document presents an analysis of RE support schemes in Bosnia and Herzegovina, i.e., its Entities.

In Phase B a concept for the reform of the renewable energy support scheme system was elaborated, support schemes for large and small installations were identified and a Final set of documents required for reform implementation was prepared. The documents are tailor-made with a significant number of practical rules having been moved from the primary legislation into the various secondary legislation acts. In this context, working versions of new entity laws on renewable energy sources had been prepared and several secondary legislation acts including rulebooks on incentives, rulebooks on amounts of incentive tariffs, that is, premiums, acts on quotas and auction volumes. The prepared working versions are to be submitted to decision makers at all levels in BIH. In the forthcoming it is expected that activities on putting forward concrete proposals are undertaken as well as on the adoption of legislation required for the successful reform process.

Furthermore, in the previous three years SERC participated in the activities led by GIZ under which a *Catalog of Criteria for a Sustainable Development of Small Hydropower Plants in BIH* was prepared at the end of 2019.

The hydropower sector is one of the most complex sectors in Bosnia and Herzegovina in terms of legislation and competencies practically at all levels of government. Hydro energy offers a significant potential for clean and economic transition of the energy sector in BIH but the environmental and socio-economic aspects cannot be neglected. In this context, activities of an intradepartmental working group comprising representatives of non-governmental sector and the competent state, entity and cantonal institutions from the relevant fields (energy, water, spatial planning and environment) focused on the method for selection of potential SHPP locations. One of the main challenges identified was the lack, that is, insufficiency of a dialog between the local communities, non-governmental sector and the institutions issuing permits and it was stressed that there was the need to develop a tool which would enable a sustainable construction of small hydropower plants and mitigate the existing conflicts in the sectors of energy, water management and environmental protection.

The prepared *Catalog of Criteria for a Sustainable Development of Small Hydropower Plants in BIH* elaborates the criteria in five sectors: energy, water managements, spatial planning, water management and the protection of nature. Together with the Catalog an excel tool was developed for the assessment of individual projects. The Catalogue provides the basis for the economically and environmentally sustainable development of hydro energy with orientation towards optimal planning of hydropower plants, preliminary assessments of individual projects and the development of regional plans for the use of hydro potentials.

Cyber Security

The security of supply is one of the key tasks of regulatory authorities in the electricity sector and a must when developing, adopting and implementing regulatory rules and regulations. There is a causal link between cyber security with the security of supply, and any cyber threat or risk is an important influential factor for the security of supply. It is of paramount importance for the reliable system operation and the protection of data in the electricity sector to acknowledge the need for proper measures for prevention, detection and response to all security challenges in the cyber space in a timely manner. Lack of a strategic framework and systemic rules regulating this issue does not relieve the regulatory authorities of the obligation to work on the protection of the electricity infrastructure and, consequently, the security of supply, by adopting their rules and taking appropriate measures.

In 2019, the State Electricity Regulatory Commission contributed to the preparation of several documents in this field, including *Cybersecurity Capacity Review* (published in March 2019), *Guidelines for a Strategic Cybersecurity Framework in Bosnia and Herzegovina* (October 2019), and actively participated in the regional project organised by USAID and NARUC *Effective Regulation of Cybersecurity*, activities of the Energy Community Working Group on Cyber Security and supported the work of the Computer Emergency Response Team for the institutions of BIH (CERT).

The participation in these activities and several workshops dealing with various cyber security aspects created the preconditions for the regulator to define a strategic approach to cyber security in the electricity sector. Consequently, at the end of 2019 SERC initiated the development of *Guidelines for a Strategic Framework on Cyber Security in Bosnia and Herzegovina Electricity Sector from Regulatory Perspective* planning to define the draft of this document at the beginning of 2020.

Taking into consideration a complex structure of the electricity sector and a specific regulatory framework in Bosnia and Herzegovina, it is found necessary to have coordinated action of the State and Entity Regulatory Commissions to establish an efficient regulatory approach in the field of cyber security in the

BIH electricity sector. Ultimately, the objectives of the Guidelines are to have information and communication systems of the entities in the BIH power sector protected, and cyber security of the regulatory authorities ensured.

Clean Energy for All Europeans

In June 2019 the European Union finalised its new package of energy rules to provide competition needed to facilitate the clean energy transition called *Clean Energy for All Europeans*. This package comprises the following eight acts:

- Directive (EU) 2018/844 of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency,
- Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council,
- Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources,
- Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency,
- Regulation (EU) 2019/941 of the European Parliament and of the Council of 5 June 2019 on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC,
- Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators (recast),
- Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast), and
- Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (recast).

These rules include the *energy efficiency first* principle and set a target to be at least 32.5% more efficient in energy use by 2030 giving a particular emphasis to improving energy performance in



the building sector. An ambitious target of at least 32% renewables in total EU consumption by 2030 will drive an acceleration of necessary investments and clean energy uptake in all sectors. The new rules establish that the Member States will prepare integrated National Energy and Climate Plans for the period from 2021 to 2030 which include an outline of a long-term strategy for at least the next 30 years.

In addition to strengthening consumer rights (more transparency in household bills, greater choice and more flexibility to change supplier), the new rules will make it easier for individuals to produce their own energy, store it or sell it onto the grid. The new rules will increase the security of supply thanks to smarter and more efficient solutions on the electricity market which enable flexibility of the system and help integrate renewable energy sources, which will lead to a cleaner, more stable and more competitive electricity sector across Europe.

In the forthcoming period SERC will analyse contents and activities stemming from the new package of European Union energy rules the goal of which is to provide competition needed to facilitate the clean energy transition. This approach takes into account the fact that all new EU regulations and directives in the energy sector become binding also for Bosnia and Herzegovina through the mechanisms developed under the Treaty establishing the Energy Community.

Ongoing and Resolved Court Disputes

All six court rulings of the Court of Bosnia and Herzegovina confirmed the lawfulness of the SERC decisions that were disputed before court by the legal persons whose applications were decided upon after the completion of the tariff proceedings or dispute settlement procedures. In 2019, there were no new applications for revision of any decision from the SERC regulatory practice by any person that has standing to commence an action.

The latest administrative dispute initiated by Elektroprivreda Hrvatske zajednice Herceg Bosne in 2017 contesting the SERC Decision adopted on 26 January 2017 ordering Elektroprivreda HZHB to pay the fixed part of the fee for connection of HPP Mostarsko Blato to the transmission network⁶ was finalised by the ruling of the Court of Bosnia and Herzegovina of July 2019. By this ruling the lawsuit of Elektroprivreda HZHB was rejected and the SERC Decision was fully confirmed according to which the mention power utility was obligated to pay EUR 1.8 million

⁶ The SERC dispute settlement procedure and procedural decisions of the Court of Bosnia and Herzegovina in the administrative dispute initiated against the SERC Decision were described in the SERC reports on activities in 2017 and 2018.

including value added tax for the fixed part of the fee for connection of HPP Mostarsko Blato to the transmission network

Due to lack of cooperation with the KTG d.o.o. Zenica Company, a former holder of the international electricity trading licence, with regard to their obligation to pay the regulatory fee, having undertaken all steps in the civil litigation in which the debts of this formerly licensed entity had been confirmed, in accordance with the court ruling in these proceedings, SERC initiated the enforcement procedure before the competent court. As the defendant has no money in the account, SERC, as the party seeking enforcement, was put on the waiting list in accordance with legal priorities for the execution of enforceable orders for payment.

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 nine Contracting Parties: Albania, Bosnia and Herzegovina, Georgia, Kosovo*, North Macedonia, Moldova, Montenegro, Serbia and Ukraine.⁷

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, Norway and Turkey have observer status in the Energy Community. In 2016, Belarus filed an application for acquiring observer status.

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, security of supply, environment, competition, renewable energy sources, energy efficiency, oil, statistics and infrastructure (Annex E). The Treaty establishing the Energy Community is valid until July 2026.

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

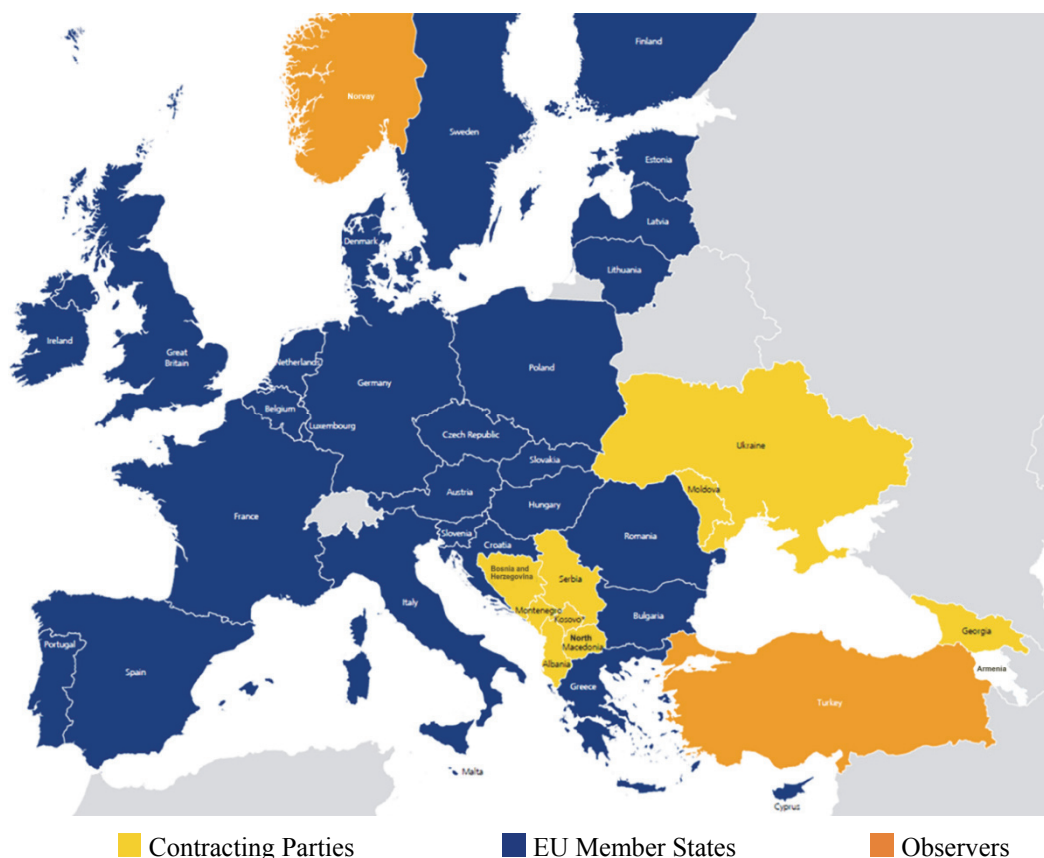
The Ministerial Council, as the highest body of the Energy Community, ensures the achievement of goals that are determined by the Treaty establishing the Energy Community. The Ministerial

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.

⁷ The list shows the Contracting Parties on 31 December 2019. Moldova, Ukraine and Georgia have Contracting Party status as of 1 May 2010, 1 February 2011 and 1 July 2017 respectively.

When the Treaty entered into force, Bulgaria and Romania were also the Contracting Parties which joined the European Union on 1 January 2007 as well as Croatia which is an EU Member State as of 1 July 2013.

Figure 19. Geographic scope of the Energy Community



Council consists of one representative of each Contracting Party and two representatives of the European Union.

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

The Energy Community Regulatory Board (ECRB), seated in Athens, is composed of representatives of the regional national regulatory bodies, while the European Union is represented by the European Commission, with the assistance of one regulator of each EU participants and one representative of the Agency for the Cooperation of Energy Regulators (ACER). The ECRB considers the issues of regulatory cooperation and may become a body issuing regional regulatory decisions and serving as a dispute resolution institution. The Regulatory Board has a key role in expanded market operation.

The Energy Community Fora bring together all interested stakeholders – representatives of governments, regulators, industry, customers, international financial institutions etc.

The Energy Community Secretariat, seated in Vienna, represents the key administrative actor and, together with the European Commission, ensures the necessary coordination and supports the

work of other institutions. The Secretariat is responsible for reviewing the proper implementation of Contracting Parties' obligations under the Treaty, and it submits yearly progress reports to the Ministerial Council. To this extent, the Secretariat acts as a 'guardian' of the Treaty establishing the Energy Community, while the European Commission plays a general coordinator role.

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

The significant support to the energy market development is provided by the measures adopted in the framework of the 'Berlin process', i.e. the initiative of six Western Balkans countries (WB6 initiative) which includes Albania, Bosnia and Herzegovina, Kosovo*, North Macedonia, Montenegro and Serbia. 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.

The goal of the Berlin Process is to strengthen cooperation between the Western Balkans countries and their accession to the European Union. Cooperation programs in various sectors focus on regional transport and energy infrastructure and reforms. This emphasises that well-connected and functioning infrastructure networks drive economic growth, provide business opportunities, attract investments and generate jobs.

Following the EU-Western Balkans summits held in Berlin, Vienna, Paris, Trieste and London the Sixth Western Balkans Summit was held in the Polish city of Poznan on 5 July 2019. On that occasion, the discussion topics included the Connectivity Agenda, economy, civil society, security, progress in resolving bilateral pending issues, the present achievements of the Berlin Process and future goals.

At the Sixth Summit the Leaders endorsed the joint *Statement on Clean Energy Transition in the Western Balkans* signed by the Western Balkans Ministers of Energy and of Environment in Podgorica on 21 February 2019. This confirmed their will to align as swiftly as possible with the EU's energy, climate and environmental policies, and the long term objectives of the Paris agreement to contribute to the well-being of citizens and the sustainable development of the region. In this perspective, the launching of an ambitious Green Agenda was announced which will be presented at the next Summit to be hosted by Croatia in May 2020.

Furthermore, the Leaders committed to enhance connectivity of the core transport and energy infrastructures and digital networks,



Poznań 2019
Western Balkans Summit

since it is not only vital for the citizens and economies, but it also enhances the political stability and socio-economic development. They agreed that the urgent completion of the Connectivity Reform Measures to establish the organised and coupled electricity markets in the region with the objective of their integration into the EU internal electricity market is of the utmost importance. The discussions further underlined the importance of efforts to decarbonise the energy sector by 2050.

The Energy Community Ministerial Council, which informally met on 28 June 2019, held an official meeting on 13 December 2019. On that occasion it focused on Energy Community Treaty reforms and the 2030 energy and climate goals.

The reforms are planned to improve the functioning of the Treaty, that is, the strengthening of the Treaty's enforcement mechanisms including a new implementation mechanism similar to those in the EU and introducing new provisions for facilitating energy trade and enhancing market integration between Energy Community Contracting Parties and EU Member States by a system of reciprocal rights and obligations. Furthermore, for the first time, with the amendments the Treaty will task the Energy Community to combat climate change and underlines the importance of the Paris Agreement. It is expected that the negotiations will be finalised in the first half of 2020. At the same meeting the European Commission presented ongoing work in line with the General Policy Guidelines on 2030 Energy and Climate Targets. The proposal on the 2030 targets for the Energy Community and its Contracting Parties is expected in the first half of 2021, alongside the relevant legislative package.

The Permanent High Level Group (PHLG) Decision of 12 December 2019 incorporated into the *acquis* Commission Regulation (EU) No 312/2014 establishing a Network Code on Gas Balancing of Transmission Networks.

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.

It is obvious that additional efforts should be made at different administrative levels in Bosnia and Herzegovina to transpose and implement the Energy Community *acquis*. The deadlines for the fulfilment of numerous obligations of BIH have already expired, with a relatively short period of time left for the remaining obligations (Annex E).

This is also indicated by the seven infringement cases initiated by the Energy Community Secretariat, which pertain to the functioning of the BIH State Aid Council, the environmental impact

Ms. Anne-Charlotte Bournoville, EU representative: "The Energy Community is an essential part of the external energy cooperation toolkit of the European Union. In order to maximise its role, it is crucial that the Energy Community stays fit for the changing environment around us. This is the principle purpose of the ongoing process to modernise the Treaty. Moreover, the Energy Community needs to follow the EU in its climate neutrality goals and joins the path towards decarbonisation by 2050."

Chisinau, 13 December 2019

assessment procedure of the planned Thermal Power Plant Ugljevik 3, the reduction of emissions of sulphur dioxide resulting from the combustion of heavy fuel oils and gas oils, legal and functional unbundling of distribution system operators, transposition of the EU Third Energy Package, adoption of legislation in the natural gas sector, and guarantees issued by the Federation of BIH for the construction of Block 7 of the Tuzla Thermal Power Plant.

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 BIH. The chairmanship of the ECRB Customers and Retail Markets Working Group since 2007 contributes to the affirmation of BIH.

In 2019, 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 past 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).

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 Europe, Asia, Africa 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 39 countries of which 33 are full members while ten are associate members (Figure 20).

The goals of ERRA are the 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. ERRA also promotes and organises training courses in the field of energy regulation.

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 and Investment Conference. Commitment of the representatives of the State Electricity Regulatory Commission was observed also in 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 BiH chairmanship of the latter Committee since 2010 contributes to the affirmation of BiH in ERRA.

The historical evolution of topics of interest to the members is evident within the ERRA 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.

Figure 20. ERRA membership





4.3 Mediterranean Energy Regulators – MEDREG

The Association of Mediterranean Energy Regulators (MEDREG) was established in 2007 in order to facilitate cooperation among the energy regulators from the countries of Northern, Southern and Eastern shores of the Mediterranean basin. The Association gathers regulatory authorities from Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Italy, Israel, Jordan, Lebanon, Libya, Malta, Montenegro, Morocco, the Palestinian Authority, Portugal, Slovenia, Spain, Tunisia and Turkey (Figure 21).

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. The Association is also dedicated to consumer protection focusing on access to information and awareness-raising regarding changes in the sector.

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) on Customer Issues. MEDREG carries out its activities through an effective internal and external cooperation process with the objective to implement the conditions for the establishment of a Mediterranean Energy Community.

*Mr. Stefano Besseghini,
MEDREG Vice President:
“MEDREG is a very
important platform to share
experiences and develop a
common understanding of
the main issues and
challenges currently faced by
Mediterranean Energy
Regulators. Such
cooperation should be
increasingly translated into
joint actions with practical
and visible outcomes.”*

*From the opening speech,
Rome, 10 December 2019*

Figure 21. Geographic scope of MEDREG



SERC representatives 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. In December 2019, the first meeting of MEDREG Presidents was held at which approaches and good practices were exchanged with regards to renewable energy development and the growing role of gas. This kind of meetings fosters cooperation at the highest level of national regulatory authorities, leading to the development of a shared vision for the role of regulators in the dynamic Mediterranean energy market.

4.4 Council of European Energy Regulators – CEER

The Council of European Energy Regulators (CEER) is a non-profitable association of independent statutory bodies responsible for energy regulation at national level. CEER brings together 39 national regulatory authorities (30 full members and nine observers) from European Union Member States, European Free Trade Association (EFTA) and EU accession countries including Contracting Parties of the Energy Community Treaty.



The overall aim of CEER is to facilitate the creation of a single, competitive, efficient and sustainable internal market for gas and electricity in Europe. The Council of European Energy Regulators acts as a platform for cooperation, information exchange and assistance between Europe's national energy regulators in the energy sector.

The State Electricity Regulatory Commission has observer status in CEER as of 1 January 2017. As Observers, SERC staff participates in activities of the CEER General Assembly and CEER's working groups. Furthermore, the State Electricity Regulatory Commission has access to the CEER's 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 activities of the Council of European Energy Regulators is also helpful on the path of Bosnia and Herzegovina towards EU membership, and the full obligations this will entail in terms of implementation of the *acquis* in the field of energy.

4.5 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 270 regulatory authorities are included in the ICER’s membership through 13 regional regulatory associations (Figure 22). SERC participates in and follows the activities of ICER through ERRA, MEDREG and CEER.

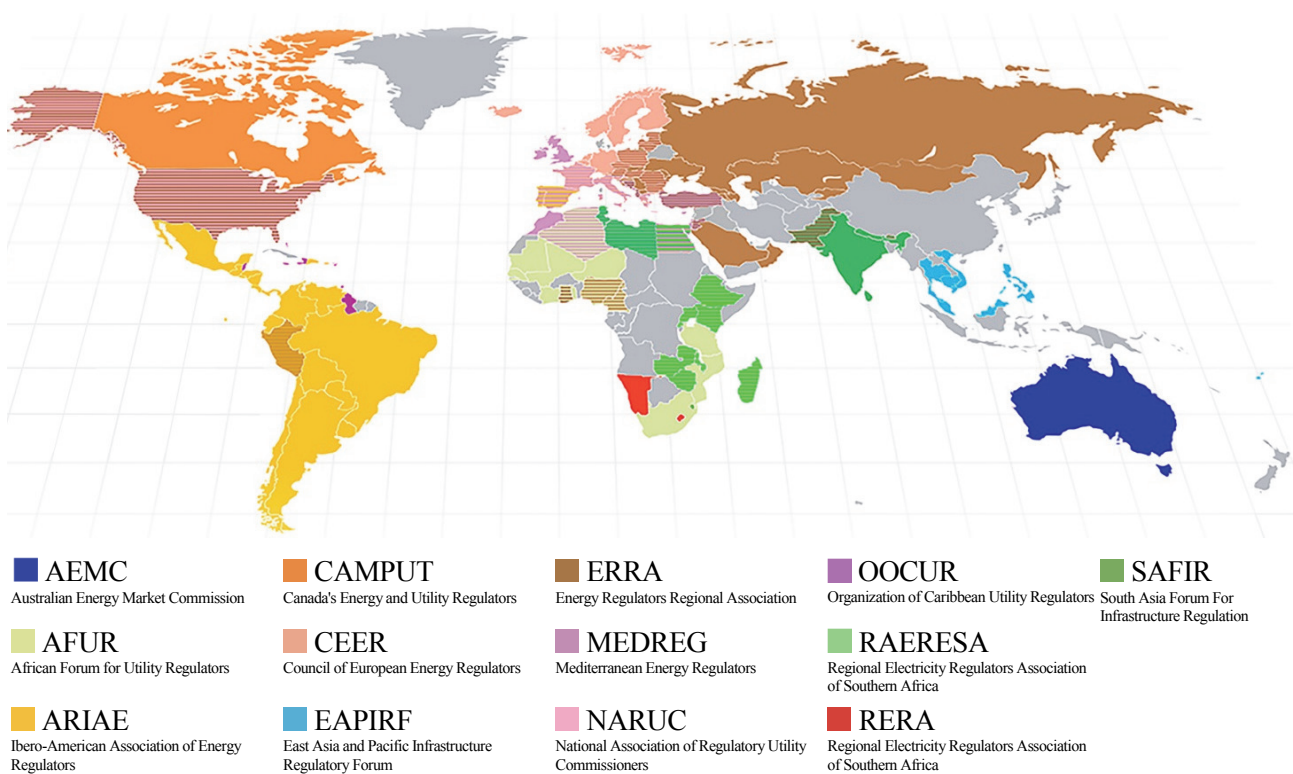
ICER’s work is focused around several key areas, in line with the topics defined during each World Forum on Energy Regulation (WFER), the leading international conference on energy regulation, held once every three years. The Seventh World Forum on Energy Regulation held in March 2018 in Cancun, Mexico focused on disruptive innovations which are currently transforming the fundamentals of the energy value chain worldwide. Furthermore, the most relevant current regulatory issues including empowered consumers, dynamic markets and sustainable infrastructure were addressed. The Forum promoted the advancement of women in energy by streamlining gender perspective in all of its activities which is the continuation of activities launched in October 2013 in ICER’s *Women in Energy* initiative.

The upcoming Eighth World Forum on Energy Regulation will be held in Lima, Peru, in March 2021. The main theme of this Forum is “The Energy Transformation Challenge” with four main pillars: competitiveness, institutionality, universal access to energy and energy transition.

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 has been engaged as a member of the Editorial Board of this professional magazine. The



Figure 22. ICER Members



ICER Chronicle is a publication issued twice a year in electronic format, gathering articles on regulatory topics.

SERC actively 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 the exchange of practice in the area of relevance to regulatory activities.

4.6 Cross-Regional Cooperation

Various forms of cooperation between regional energy regulators associations exist for a certain period of time through organisation of joint training events, workshops and relevant working group meetings. While some regulators are members of several associations of energy regulators at the same time, these associations operate in regions that substantially differ in their degree of integration, meaning that common challenges are often met with different means. At the same time some common memberships of the associations promote convergence of goals and principles. This is the reason why cooperation of these associations in terms of exchanging experiences and regulatory practices becomes more important.

Recognising the relevance of these forms of cooperation and the commitment to foster a compatible and transparent energy regulation by promoting best practices and exchanging experiences, the Council of European Energy Regulatory (CEER), the Energy Community Regulatory Board (ECRB) and the Association of Mediterranean Energy Regulators (MEDREG) signed a *Cooperation Arrangement* on 12 December 2018 in Vienna.

Under this framework a joint *Workshop on the future of net-metering and renewable energy support auction mechanism in the MEDREG and ECRB regions* took place in the middle of June 2019 in Tirana with the aim of supporting the development of a coherent regional approach to regulation of the renewable energy markets in the Mediterranean and ECRB regions. Furthermore, at the end of June 2019 in Brussels, a trilateral ECRB-CEER-MEDREG consumer workshop was held focusing on consumer empowerment in the digital era and in the context of the *Clean Energy for All Europeans* package.

The State Electricity Regulatory Commission is a member of both the ECRB and MEDREG and has observer status at CEER. This position of SERC will further strengthen its professional capacities in terms of gaining more knowledge and exchanging experience and regulatory practice. Furthermore, it will give more opportunities to continue the successful engagement of SERC experts in providing professional training for the staff of other regulators through organisation of joint training events in which SERC representative had a prominent role.

5. AUDITING REPORT

Pursuant to the Law on Transmission of Electric Power, Regulator and System Operator of BIH, SERC is funded from its own revenues. The basic revenue of SERC in 2019 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 of BIH. The regulatory fee is determined so as to cover SERC's costs, while the obligations to pay the regulatory fee in the forthcoming period are reduced by an excess of revenues over expenditures.

In addition to efforts to attain the mentioned own funding, SERC financial dealings also include the following activities:

- incurrence and settlement of financial obligations for the needs 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 previous year was performed in the first quarter of 2019 by the Auditing Company Vincent d.o.o. Tuzla with which a contract was concluded in accordance with public procurement procedures.

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

“In our opinion, the annual financial reports show realistically and objectively the financial standing of SERC on 31 December 2018, its business results and cash flow for the year which ended at that point, in accordance with the Law on Accounting and Auditing of the Federation BIH and the International Financial Reporting Standards (IFRS).”

*Vincent d.o.o.,
Tuzla, 22 March 2019*



Based on the collected data, the independent auditor gave a positive assessment of SERC financial reports for 2018. 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 applicable 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 errors in order to protect the property from loss caused by negligence or poor management.

With the aim of further enhancing the system of financial management and control, last year SERC signed an *Internal Audit Agreement* with the Internal Audit Unit of the Ministry of Foreign Trade and Economic Relations of BIH. Through internal audit consulting activities in line with the principles and standards implemented by the institutions of Bosnia and Herzegovina, SERC expects objective and professional assistance in facilitating the organisation of business. The aim of using internal auditing services is to ensure the development of *ex-ante* audit of defined processes as well and strengthen the overall risk management process (so-called risk management). In the reporting period there was no internal auditing.

Through external auditing, SERC ensures an independent and reliable report on the use of property and management of revenues and expenditures. Lead by the commitment to the principles of objectivity and transparency in its work, with the aim of providing information on its financial standing and business results, the State Electricity Regulatory Commission publishes its auditing report. The audited financial reports for 2018 were published in the Official Gazette of BIH, 29/19 and on the SERC website.



6. MAIN ACTIVITIES IN 2020

The State Electricity Regulatory Commission will continue its activities on ensuring the conditions for free trade and unhindered electricity supply in accordance with the pre-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 2020, SERC will continue to cooperate with the Parliamentary Assembly of Bosnia and Herzegovina (PABIH), in particular with the Committee on Traffic and Communications of the House of Representatives of PABIH and the Committee on Foreign and Trade Policy, Customs, Traffic and Communications of the House of Peoples of PABIH. In addition, the focus of interest will 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 2020 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 Competition Council 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 analysis of the regulatory rules already adopted and the existing practice, together with review and revision of SERC acts,
- Monitoring the procurement of ancillary service and provision of the system services 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,
- Contribution to organising and functioning of the wholesale market, including the establishment of an institutional framework for an organised day-ahead market,
- Contribution to organising and functioning of the fully open retail market in BiH,
- 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 2021 – 2030* and the *Long-Term Transmission Network Development Plan* for the upcoming 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 network codes and guidelines and the Regulation on wholesale energy market integrity and transparency,
- Regulatory activities regarding the improvement of cyber security in the BiH power sector,
- 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 rules of the European Union on the internal energy market ('Third Energy 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 electricity sector as specified in the reports of the European Commission on BIH.

In line with its competences, SERC will contribute to the implementation of recommendations of meetings of the BIH Stabilisation and Association Committee and Subcommittee on Transport, Energy, Environment and Regional Development.

SERC will also participate in supporting and implementing regional priorities and Energy Community projects but also in the priorities identified for the BIH power sector within the Energy Community 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 within the 'Berlin Process'. In accordance with the position of Bosnia and Herzegovina, SERC will participate in the CESEC initiative (the European Commission Initiative on Central and South-Eastern European Energy Connectivity).

SERC is also planning to contribute to the continued implementation of several regional projects of the United States Agency for International Development (USAID) and the National Association of Regulatory Utility Commissioners (NARUC).

In 2020, the USAID multiannual *Energy Policy Activity* project will continue so SERC will follow its activities and participate in the implementation of some components relating to the regulatory activities. Furthermore, SERC plans to actively participate in the Sixth Energy Summit in BIH, which is planned for spring 2020 under this 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,
- ERRA – the Energy Regulators Regional Association,
- MEDREG – the Mediterranean Energy Regulators,
- CEER – the Council of European Energy Regulators, and
- ICER – the International Confederation of 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.

In the forthcoming period SERC will analyse the contents and activities stemming from the new package of European Union energy rules the goal of which is to provide competition needed to facilitate the clean energy transition (*Clean Energy for All Europeans*). This approach takes into account the fact that all new EU regulations and directives in the energy sector become binding also for Bosnia and Herzegovina through the mechanisms developed under the Treaty establishing the Energy Community.

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

(Source: ISO BIH, Elektroprenos BIH and public electric power utilities)

Basic Data on Installed Capacity of Generation Units

Total installed capacity of generation units in Bosnia and Herzegovina amounts to 4,507.71 MW, with 2,076.6 MW, 2,065 MW and 86.6 MW installed in the major hydro power plants, thermal power plants and larger wind power plants respectively. Installed capacity of small hydro, solar, biogas and biomass power plants and small wind power plants amounts to 162.24 MW, 22.35 MW, 3.29 MW and 0.4 MW respectively, while installed capacity of industrial powers plants amounts to 91.23 MW.

Major generation units

Hydro power plants	Capacity of power unit (MW)	Total installed capacity (MW)
Trebinje I	2×54+63	171
Trebinje II	8	8
Dubrovnik (BIH+Cro)	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

Thermal power plants	Installed capacity (MW)	Available capacity (MW)
TUZLA	715	635
<i>Tuzla G3</i>	100	85
<i>Tuzla G4</i>	200	182
<i>Tuzla G5</i>	200	180
<i>Tuzla G6</i>	215	188
KAKANJ	450	398
<i>Kakanj G5</i>	110	100
<i>Kakanj G6</i>	110	90
<i>Kakanj G7</i>	230	208
GACKO	300	276
UGLJEVIK	300	279
STANARI	300	283
Wind power plants	Capacity of power unit (MW)	Total installed capacity (MW)
Mesihovina	22×2.3	50.6
Jelovača	18×2	36

Basic Data on the Transmission System

transmission lines

Nominal voltage of transmission lines	Length (km)
400 kV	865.93
220 kV	1,520.09
110 kV	4,023.69
110 kV – cable line	33.15

substations

Type of substation	Number of substations	Installed capacity (MVA)
SS 400/x kV	10	5,680.5
SS 220/x kV	8	1,423.0
SS 110/x kV	135	5,679.5

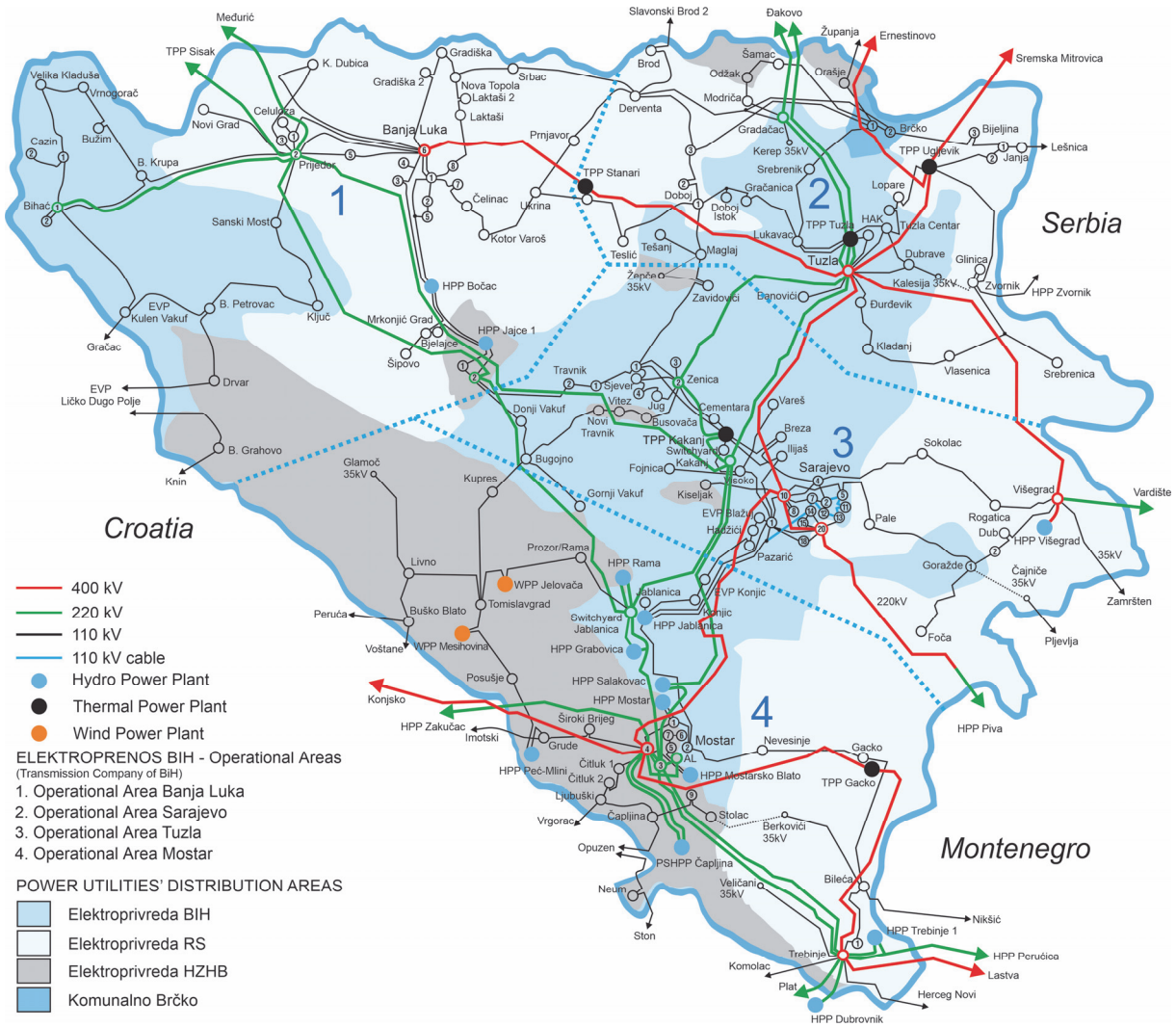
interconnections

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

transformers

Transmission ratio of transformers	Number of transformers	Installed capacity (MVA)
TR 400/x kV	13	4,600.0
TR 220/x kV	13	1,950.0
TR 110/x kV	253	6,233.0

ANNEX B: Map of the Electric Power System of Bosnia and Herzegovina with Operational Areas of Elektroprenos BIH and Distribution Areas of Public Electric Power Utilities (31 December 2019)



ANNEX C: Balance Values of the Electric Power Sector of Bosnia and Herzegovina

(GWh)

Year 2019	EP BIH	ERS	EP HZHB	Komunalno Brčko	Other entities	BIH
Generation in hydro power plants	1,443.95	1,604.74	2,537.38		63.53	5,649.60
Generation in thermal power plants	4,527.31	3,017.35			2,068.32	9,612.98
Generation in larger wind PPs			165.98		87.69	253.67
Generation in small and industrial PPs	62.52	47.24			448.00	557.76
Generation	6,033.78	4,669.33	2,703.36		2,667.54	16,074.01
Customers connected to distr. network	4,737.34	3,726.24	1,407.10	271.87		10,142.55
Transmission losses						323.95
Large customers	493.33	374.32	571.41		311.52	1,750.58
PPs self-consumption and pumping		13.83	96.28		2.94	113.05
Consumption	5,230.67	4,114.39	2,074.79	271.87	314.46	12,330.13
Year 2018	EP BIH	ERS	EP HZHB	Komunalno Brčko	Other entities	BIH
Generation in hydro power plants	1,533.61	2,729.05	1,984.86		52.56	6,300.08
Generation in thermal power plants	5,648.34	3,249.42			2,056.00	10,953.76
Generation in larger wind PPs			103.50			103.50
Generation in small and industrial PPs	63.46	50.58			401.61	515.65
Generation	7,245.41	6,029.05	2,088.35		2,510.18	17,872.99
Customers connected to distr. network	4,705.96	3,770.48	1,392.22	270.02		10,138.68
Transmission losses						398.77
Large customers	464.34	361.65	131.09		1,646.73	2,603.81
PPs self-consumption and pumping		11.77	137.43		3.49	152.69
Consumption	5,089.64	4,143.91	1,650.44	270.02	1,650.22	13,293.95
Year 2017	EP BIH	ERS	EP HZHB	Komunalno Brčko	Other entities	BIH
Generation in hydro power plants	941.41	1,575.30	1,287.41		27.27	3,831.39
Generation in thermal power plants	6,007.23	2,870.62			2,040.59	10,918.44
Generation in small and industrial PPs	60.38	42.21			298.98	401.57
Generation	7,009.02	4,488.13	1,287.41	0	2,366.84	15,151.40
Customers connected to distr. network	4,730.02	3,772.64	1,399.58	276.86		10,179.10
Transmission losses						341.52
Large customers	1,225.42	339.99	3.40		993.01	2,561.82
PPs self-consumption and pumping		14.03	266.11		3.82	283.96
Consumption	5,955.44	4,126.66	1,669.09	276.86	996.82	13,366.40
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
Generation	7,244.66	5,814.91	1,540.38		1,908.99	16,508.94
Customers connected to distr. network	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
Consumption	5,006.34	4,014.23	2,919.37	270.08	321.77	12,865.10
Year 2015	EP BIH	ERS	EP HZHB	Komunalno Brčko	Other entities	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
Generation	7,010.36	5,558.33	1,839.17			14,407.86
Customers connected to distr. network	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
Consumption	4,992.37	3,834.79	3,153.75	265.38		12,605.66

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

ANNEX D: Electric Power Indicators of Bosnia and Herzegovina

		2015	2016	2017	2018	2019
Electricity generation	(GWh)	14,407.86	16,508.94	15,151.40	17,872.99	16,074.02
Net imports	(GWh)	3,965.37	3,144.55	3,428.16	3,118.73	2,824.96
Net exports	(GWh)	5,767.57	6,788.40	5,213.15	7,697.77	6,568.84
Total electricity supplied	(GWh)	12,605.66	12,865.10	13,366.40	13,293.95	12,330.13
Gross electricity consumption	(GWh)	12,605.66	12,865.10	13,366.40	13,293.95	12,330.13
Transmission losses	(GWh)	359.37	333.30	341.52	398.77	323.95
Transmission losses	(%)	2.01%	1.75%	1.90%	1.96%	1.77%
Distribution losses	(GWh)	1,035.10	1,024.76	1,005.92	950.00	933.29
Distribution losses	(%)	10.51%	10.26%	9.88%	9.37%	9.20%
PPs self-consumption and pumping	(GWh)	27.86	75.13	283.96	152.69	113.05
Final consumption of electricity	(GWh)	11,183.34	11,431.90	11,735.00	11,792.50	10,959.84
	<i>Non-households</i>	6,456.85	6,698.88	6,978.87	7,107.16	6,233.91
	<i>Households</i>	4,726.49	4,733.02	4,756.13	4,685.33	4,725.94
Maximum system load	(MW)	2,105.00	2,098.00	2,189.00	1,994.00	1,945.00
Net maximum capacity of power plants	(MW)	4,009.14	4,351.88	4,384.77	4,462.23	4,507.71
Coal-fired power plants		1,856.23	2,156.23	2,156.23	2,156.23	2,156.23
Hydropower plants in total		2,150.44	2,180.24	2,207.47	2,235.60	2,238.84
	<i>small hydropower plants</i>	95.54	96.74	124.00	159.00	162.24
	<i>pumped storage power plants</i>	420.00	420.00	420.00	420.00	420.00
Total of other renewable sources		9.46	15.41	18.06	71.39	112.64
	<i>wind</i>	0.30	0.30	0.30	51.00	87.00
	<i>solar</i>	8.17	14.12	16.52	18.15	22.35
	<i>biomass</i>	0.00	0.00	0.25	0.25	1.22
	<i>biogas</i>	0.99	0.99	0.99	0.99	2.07
Transmission network	(km)	6,332.66	6,320.94	6,371.11	6,402.10	6,409.71
	<i>380 kV</i>	864.73	864.73	864.73	865.93	865.93
	<i>220 kV</i>	1,524.80	1,520.38	1,520.38	1,520.09	1,520.09
	<i>110 kV</i>	3,943.13	3,935.83	3,986.00	4,016.07	4,023.69
Number of interconnectors		37	37	37	37	37
Substation capacity	(MVA)	12,856.50	12,758.50	13,022.00	12,903.00	12,783.00
Electricity customers		1,517,161	1,531,501	1,541,968	1,553,439	1,567,786
	<i>Non-households</i>	124,327	126,303	127,553	126,508	128,224
	<i>Households</i>	1,392,834	1,405,198	1,414,415	1,426,931	1,439,562
Eligible customers		1,517,161	1,531,501	1,541,968	1,553,439	1,567,786
Customers that switched supplier		2	58	56	31	16
Electricity supplied	(GWh)	861.86	321.77	1,859.97	1,737.69	365.92
Share in final consumption	(%)	7.71%	2.81%	15.85%	14.74%	3.34%
Customers for whom prices are not regulated		9.139	10.133	10.521	9.784	10.091
Electricity supplied	(GWh)	4,705.94	4,908.68	5,148.53	5,265.27	4,371.07
Share in final consumption	(%)	42.08%	42.94%	43.87%	44.65%	39.88%

ANNEX E: 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, renewable energy sources, environment, energy efficiency, oil, infrastructure, competition and statistics. 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 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 (deadline: 12 July 2021, except for Articles 4(2) points (a) and (b), 5(4), 75, 76 and 78(1) for which the deadline is 12 July 2018),
- Commission Regulation (EU) No 2016/1388 of 17 August 2016 establishing a network code on demand connection (deadline: 12 July 2021, except for Articles 4(2) points (a) and (b), 6(4), 51(1), 56 and 57 for which the deadline is 12 July 2018),
- Commission Regulation (EU) No 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators (deadline: 12 July 2021, except for Articles 4(2) points (a) and (b), 7(4), 58, 59, 61(1), 68(1) and 69(1) for which the deadline is 12 July 2018),
- 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 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency (deadline: 29 May 2020),
- 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

- Commission Regulation (EU) No 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (deadline: 28 February 2020, except for Chapters II, III and IV for which the deadline is 31 May 2021),
- Commission Regulation (EU) No 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems (deadline: 28 Feb. 2020, except for Chapters II, III and IV for which the deadline is 31 May 2021),
- Commission Regulation (EU) No 2015/703 of 30 April 2015 establishing a Network Code on Interoperability and Data Exchange Rules (deadline: 1 October 2018),
- Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a network code on gas balancing of transmission networks (deadline: 12 December 2020),
- Regulation (EU) No 1227/2011 (please see *Acquis on Electricity*),
- 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, except for Annex I for which the deadline is 1 October 2018).

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 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).

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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 (deadline: 30 June 2018),
- 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.

Acquis on Energy Efficiency

- Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU (deadline: 1 January 2020),
- 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).

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 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).

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.

* The abovementioned provisions are contained in Articles 101, 102, 106 and 107 of the Treaty on the Functioning of the European Union.

Acquis on Statistics

- Regulation (EU) 2016/1952 of the European Parliament and of the Council of 26 October 2016 on European statistics on natural gas and electricity prices and repealing Directive 2008/92/EC,
- Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics (deadline: 31 December 2013).

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.

Note: Texts of EU rules provided in this Annex are available on the website of the State Electricity Regulatory Commission (www.der.k.ba).

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

