Pursuant to Article 4.8 of the Law on Transmission of Electric Power, Regulator and System Operator in Bosnia and Herzegovina (Official Gazette of BiH, 7/02, 13/03, 76/09 and 1/11) and Article 7, paragraph 5 and 9 of the Rule on Tariff Proceedings (Official Gazette of BiH, 44/05), deciding upon the application of Independent System Operator in Bosnia and Herzegovina number: 87/18 of 26 October 2018, at the session held on 24 January 2019, the State Electricity Regulatory Commission adopted a

DECISION

ON TARIFFS FOR SYSTEM AND ANCILLARY SERVICES

Article 1 (Subject)

This Decision defines a tariff for system service and tariff for excessive withdrawal of reactive power from the transmission system of Bosnia and Herzegovina.

Article 2 (System Service)

- (1) The financial scope of the system service in 2019 shall be set to the amount of 60,203,591 BAM while the tariff for system service shall amount to 0.4143 fening/kWh.
- (2) The funds collected on the basis of the tariff for system service shall be used exclusively for procurement of secondary and tertiary control reserve capacity on the market as well as procurement of electricity to cover transmission system losses and compensation of unintended deviations towards the neighbouring control areas.

Article 3 (Excessive Take-on of Reactive Power)

It is determined that the tariff for excessive take-on of reactive power from the transmission network shall amount to zero (0) fening/kvarh.

Article 4

(Calculation of Deviations from Daily Schedule by Balance Responsible Parties)

Values of deviations from a daily schedule by balance responsible parties shall be calculated on an hourly basis. The Independent System Operator in Bosnia and Herzegovina (ISO BiH) shall calculate deviations in energy and financial terms pursuant to the Market Rules (Official Gazette of BiH, 48/15) and relevant procedures.

Article 5

(Calculation and Billing of Ancillary and System Services)

- (1) Pursuant to the Market Rules and relevant procedures, the ISO BiH shall make calculation of ancillary and system services based on which billing and payment of services shall be made.
- (2) The calculation referred to in Item (1) of this Article shall be submitted to ancillary service providers, suppliers of customers connected to the transmission system, distribution system operators in BiH and SERC. The calculation shall include financial and energy positions of the ISO BiH and market participants.

(3) With the aim of making an accurate calculation, distribution system operators shall be obligated to provide the ISO BiH with all required data and information in a timely manner.

Article 6 (Final Provisions)

This Decision shall enter into force on the day of the adoption and it shall be applied as of 1 February 2019.

The statement of the Decision shall be published in the Official Gazette of BiH and the official gazettes of the Entities and Brčko District of Bosnia and Herzegovina.

Statement of Rationale

The Independent System Operator in Bosnia and Herzegovina (hereinafter: the ISO BiH) is one of the entities in the power sector with the task to manage the transmission system operation in Bosnia and Herzegovina. The ISO BiH competences and functions have been defined by the *Law on Transmission of Electric Power, Regulator and System Operator in Bosnia and Herzegovina* (Official Gazette of BiH, 7/02, 13/03, 76/09 and 1/11) and the *Law Establishing an Independent System Operator for the Transmission System of Bosnia and Herzegovina* (Official Gazette of BiH, 35/04).

The ISO BiH is a holder of the licence for performance of the independent system operator activity pursuant to the Decision of the State Electricity Regulatory Commission (hereinafter: SERC), number 05-28-12-30-20/12 of 3 July 2012 (Official Gazette of BiH, 53/12).

Pursuant to Article 28d of the Tariff Pricing Methodology for services of electricity transmission, operation of independent system operator and ancillary services – Consolidated version (Official Gazette of BiH, 93/11, 61/14 and 95/16 – hereinafter: Tariff Methodology), the purpose of the system service is to cover the costs of procurement of secondary reserve capacity, tertiary reserve capacity and the costs of procurement of electricity to cover losses in the transmission system incurred by performance of a part of the activities as set forth in Articles 2 and 7 of the Law Establishing an Independent System Operator for the Transmission System of Bosnia and Herzegovina.

Pursuant to Article 28d of the *Tariff Methodology*, the tariff is determined on the basis of costs for performance of a regulated activity and a physical scope of services within the regulated activity. Costs for performance of the regulated activity and physical scope of services provided by the regulated entity are determined on the basis of data included in the tariff application. When determining tariffs, SERC may also use additional data if it deems necessary.

The ISO BiH filed the tariff application number 87/18 of 26 October 2018 which was received by SERC on 30 October 2018 under number 04-28-5-427-1/18. The tariff application was filed using the forms as set forth by the *Decision establishing forms for submitting data* in the tariff proceedings (Official Gazette of BiH, 44/05), with required attachments.

According to the Rule on Tariff Proceedings, the ISO BiH submitted the required documentation which includes an analytical overview of all realised, estimated and planned revenues and expenditures for 2018 and 2019, pursuant to which an amount of 0.647 fening/kWh was requested for the system tariff.

In addition to the application, the ISO BiH also submitted the BIH Power Balance for 2019.

The completeness of the ISO BiH application was confirmed by the SERC conclusion number 04-28-5-427-3/18 to initiate the proceedings for setting of tariffs for operation of the

independent system operator and tariffs for system and ancillary services, which was adopted at the session held on 7 November 2018.

While considering the tariff application in the tariff proceedings, the basic principles prescribing that tariffs will be just and reasonable, non-discriminatory, based on objective criteria and justified costs and set in a transparent manner have to be respected to the maximum extent possible. The applicant is obligated to prove that the proposed tariff meets the requirements of BiH laws and SERC rules.

In the submitted application, the ISO BiH states that the requested amount of the tariff for system service was calculated by taking into account all necessary secondary and tertiary control capacities for 2019, under the assumption that maximum prices of capacity will be reached at the annual bid, that is, price caps as defined in the Decision on determination of coefficients and price caps for ancillary services (Official Gazette of BiH, 68/17). Energy required to cover losses in the transmission network, i.e., losses, is provided in the Balance for 2019, and the procurement price of 120 KM/MWh was provided as a framework price.

The tariff proceedings were conducted by holding a formal public hearing in full compliance with the provisions of the *Rules of Hearing Procedures* (Official Gazette of BiH, 38/05), in accordance with Article 45 of which by a short notice in three daily newspapers and on its website SERC informed the public of a summary of the filed application and the possibility for interested parties to get familiarised with the application directly and submit comments on the subject of the tariff proceedings in writing. The public notice invited the persons interested to participate in the formal hearing as interveners and to provide the evidence of their interest in writing beforehand and announced the formal public hearing to be held in the proceedings upon the application.

After the submission of requests for intervener status, by the conclusion number 04-28-5-427-18/18 of 20 November 2018, in order to hear their respective positions and interests SERC allowed the following entities to participate in the proceedings in the capacity of interveners: JP "Elektroprivreda Bosne i Hercegovine", d.d. Sarajevo, MH "Elektroprivreda Republike Srpske" Parent Company, a.d. Trebinje, JP "Elektroprivreda Hrvatske zajednice Herceg Bosne", d.d. Mostar, "R-S Silicon", d.o.o. Mrkonjić Grad, "Aluminij", d.d. Mostar i "EFT - Rudnik i Termoelektrana Stanari", d.o.o. Stanari. The interveners did not use the right to directly review the complete tariff application documentation at the SERC premises.

A preliminary hearing on the submitted tariff application was held on 29 November 2018 in Tuzla. At the preliminary hearing a list of questions to be discussed and the course of the formal hearing were defined. At the formal hearing held on 11 December 2018 the parties to the proceeding presented their respective proofs for the purpose of determining all relevant facts. Every question from the list defined was elaborated by the successive replies of the applicant and comments thereon by the interveners and the Presiding Officer.

The Presiding Officer's report describes the course of the proceeding, offered proofs and established facts, relevant legal provisions and recommendations to the Commissioners (hereinafter: Commission) and it was delivered to the applicant by SERC act number 04-28-5-427-42/18 of 31 December 2018 and the interveners whose status was legally acknowledged by SERC. The Commission concludes that the Presiding Officer's Report provided the reasonable grounds for the Commission to make its final decision on the submitted tariff application after its careful consideration and evaluation of the presented data, arguments and explanations as well as comments on a draft of this Report by the ISO BiH (number 04-28-5-427-44/18 of 15 January 2019) and interested parties (JP "Elektroprivreda Hrvatske zajednice Herceg Bosne", d.d. Mostar, comments under number 04-28-5-427-45/18 of 15 January 2019, "R-S Silicon", d.o.o. Mrkonjić Grad, comments under number 04-28-5-427-46/18 of 15

January 2019, MH "Elektroprivreda Republike Srpske" Parent Company, a.d. Trebinje, comments under number 04-28-5-427-47/18 of 15 January 2019, "Aluminij", d.d. Mostar, comments under number 04-28-5-427-48/18 of 15 January 2019, JP "Elektroprivreda Bosne i Hercegovine", d.d. Sarajevo, comments under number 04-28-5-427-50/18 of 16 January 2019).

In its comments on the Presiding Officer's Report, the ISO BiH points out that the Presiding Officer used too optimistic indices for the analysis of the tariffs for system and ancillary services, that the expected income based on imbalances in 2019 would be lower than the income in 2018, that on 1 February 2019 the excess accumulated income (book value) based on the system service, ancillary services, imbalances would amount approximately 2.5 million BAM, and that the income in 2019 on this basis would be more than 12 million BAM lower than the expenditure, and that the stated consequences for the balancing market have to be considered while passing a decision.

In its comments, "R-S Silicon", d.o.o. Mrkonjić Grad expresses its position according to which the most important fact is that the balancing market operation is monitored, in particular the possibility of SERC to adjust the price if needed, that it is not acceptable to project costs with maximum values, i.e., cap values, and that it is necessary to find a model for differentiation of the system and ancillary services in accordance with data as projected by market participants.

In its comments, "Aluminij", d.d. Mostar in the capacity of intervener points out that it is unjustifiable for electricity exporters not to participate in the payment of tariffs for secondary and tertiary control or losses in the transmission network. The intervener is of the opinion that the services of the system in Bosnia and Herzegovina are used for exports of electricity and non-payment thereof by exporters increases costs of domestic customers.

With regard to the determination of tariffs for system and ancillary service, in its comments JP "Elektroprivreda Bosne i Hercegovine", d.d. Sarajevo, justifies an increase in tariffs due to the increase in energy price on the regional market, and proposes that the implementation of a new decision be postponed as there is a need to regulate relationships with customers in line with the new decision. However, in view of this comment, it should be emphasised that SERC was not requested to postpone the implementation of other decisions in order to regulate relationships with customers in the previous tariff proceedings when the tariff for system service was reduced.

The comments of JP "Elektroprivreda Hrvatske zajednice Herceg Bosne", d.d. Mostar and MH "Elektroprivreda Republike Srpske" Parent Company, a.d. Trebinje are essentially related to the structure of the tariff for the ISO operation.

The Commission has to focus its analysis on all specificities and circumstances related to the system and ancillary services in the BiH power sector, suggestions and comments of all interveners which were emphasised through the whole proceedings, and make a decision on tariffs after careful consideration thereof. In line with these obligations, the Commission presents the following points of view:

As the necessary volumes of all ancillary services for 2019 were procured through bidding, except secondary reserve for off-peak periods which was procured in an amount of 78.5% of the required physical scope, the estimate for the missing capacities was made using the maximum price (43 KM/MW/h) for the missing capacity.

By its letter of 11 January 2019, "Aluminij", d.d. Mostar informed the ISO BiH (a copy sent to SERC) that the planned consumption of this company in 2019 would amount to 1,252.68 GWh. As the consumption by "Aluminij" amounts to 1,445.40 GWh according to

the forecast in the Power Balance in the transmission network for 2019, the value of total planned withdrawal is reduced to 11,907.28 GWh. Since energy withdrawn in the pumping mode of operation is also taken into account for billing of the system service, the planned withdrawal in this mode of operation of PPP Čapljina amounting to 75.4 GWh is added to the given amount, so that planned withdrawal of electricity amounts to 11,982.68 GWh.

The Commission supports the Presiding Officer's position that the tariff for system service, i.e., calculation of the income for ancillary services procurement should be based on offers and results of completed bidding procedures conducted by the ISO BiH as well as on the movements of income and costs in the previous period 2016-2018, as presented in the table below:

1.	Secondary reserve (KM)	16,460,910
2.	Upward tertiary reserve (KM)	6,089,096
3.	Downward tertiary reserve (KM)	184,847
4.	Total amount for secondary and tertiary reserve (KM) 1.+2.+3.	22,734,853
5.	Total amount for losses (KM)	50,306,160
6.	Total planned costs for 2019 (KM) 4.+5.	73,041,013
7.	Balance of services in 2016 (KM)	9,532,807
8.	Balance of services in 2017 (KM)	4,826,023
9.	Balance of services in 2018 (KM)	-10,021,408
10.	Balance of services in the previous period (KM) 7.+8.+9.	4,337,422
11.	Income based on balance of imbalances and balancing energy (KM)	8,500,000
12.	Total for calculation of tariff for system service (KM) 61011.	60,203,591
13.	Energy (kWh)	11,982,680,000
14.	Tariff for system service (fening/kWh)	0.5024

Based on the total value for calculation of the tariff for system service amounting to 60,203,591 KM and total energy taken over by customers from the transmission system in Bosnia and Herzegovina amounting to 11,982,680,000 kWh, the calculated tariff for the system service amounts to 0.5024 fening/kWh.

Taking into consideration that the stated amount of the tariff is 57.6 %, higher than the applicable tariff, in order to avoid price hikes the Commission opts for a gradual increase of the tariff for system service, and in line with this commitment decides that the tariff for system service will amount to 0.4143 feninga/kWh. As incomes and expenditures depend on a high number of factors such as a physical scope of losses in the transmission service, the scope of provided ancillary services in comparison to the planned one, the price of control energy and engagement thereof, prices and scopes of imbalances, the application of the tariff will be monitored continuously as well as trends of incomes and expenditures and developments on the electricity balancing market, and the next adjustment of the tariff for system service will be initiated when deemed appropriate.

Taking into account that the problem of reactive power surplus causes high voltage in the transmission system, and that required investments in the relevant infrastructure were not made (shunt reactors), which would resolve the issue of the existing surplus of reactive capacity and power in the transmission system, the Commission is of the opinion that it is not justified to charge excessive withdrawal of reactive power. Namely, the users that withdraw reactive power in these situations actually help the power system operation, which is the reason why the Commission decides that the tariff for excessive withdrawal of reactive power

from the transmission system amounts to zero (0) fening/kvarh, with the obligation to carefully monitor the application thereof and make adjustments if needed.

Taking into consideration the fact that the balancing market in Bosnia and Herzegovina is one of rare functional markets in the region of Southeast Europe and that the trends on the regional wholesale market have the significant impact on its operation and prices of services, SERC will continuously monitor the implementation of this decision and rules regulating this field.

Pursuant to Article 14 of the *Rule on Tariff Proceedings*, the applicant is obligated to enable public access to the officially approved tariff so as to enable the tariff as approved by the decision to be at disposal to the public at its main business office during working days and published on its website.

Pursuant to Article 9.2 of the Law on Transmission of Electric Power, Regulator and System Operator of Bosnia and Herzegovina, proceedings may be initiated before the Court of Bosnia and Herzegovina against a decision on approval of tariffs by filing a lawsuit within sixty (60) days from the day of receiving the decision.

Number: 04-28-5-427-**/18 24 January 2019 Tuzla Chairman of the Commission

Milorad Tuševljak