Pursuant to Article 4.2 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 Articles 28, 29, 30, 31, 33 and 36 of the Tariff Pricing Methodology for services of electricity transmission, an independent system operator and ancillary services – Second consolidated version (Official Gazette of BIH, 68/21), at its session held on 8 December 2021, the State Electricity Regulatory Commission passed a

DECISION
ON DETERMINATION OF COEFFICIENTS AND PRICE CAPS FOR ANCILLARY SERVICES

Article 1
(Subject Matter)

The coefficients for calculation of volumes in the ancillary service system and price caps for ancillary services for the purpose of procurement of services on the balancing market by the Independent System Operator in Bosnia and Herzegovina are determined by this Decision.

Article 2
(Automatic Frequency Restoration Reserve aFRR (Secondary Control))

The coefficients and price caps for capacity and energy for automatic frequency restoration reserve (secondary control) shall be determined as follows:

- Price coefficient for capacity for automatic frequency restoration reserve amounts to 1.2 ($k_{SecCap} = 1.2$),
- The base price for capacity for automatic frequency restoration reserve amounts to 35.83 BAM/MW/h ($p_{BaseSecCap} = 35.83$ BAM/MW/h),
- The price cap for capacity for automatic frequency restoration reserve for each month amounts to 43.00 BAM/MW/h ($p_{MaxSecCap} = 43.00$ BAM/MW/h),
- Coefficient of charges for non-provided capacity for automatic frequency restoration reserve amounts to 1.1 ($k_{PenSecCap} = 1.1$),
- Difference in prices of energy for upward and downward automatic frequency restoration reserve amounts to 40 BAM/MWh ($S = 40$ BAM/MWh).

Article 3
(Manual Frequency Restoration Reserve mFRR (Tertiary Control))

The coefficients and price caps for capacity and energy for manual frequency restoration reserve mFRR (tertiary control) shall be determined as follows:

- Price coefficient for capacity for manual frequency restoration reserve amounts to 1.1 ($k_{TerCap} = 1.1$),
- The price of capacity for manual frequency restoration reserve amounts to 8.18 BAM/MW/h ($p_{TerCap} = 8.18$ BAM/MW/h),
- The price cap for capacity for upward manual frequency restoration reserve amounts to 9.00 BAM/MW/h

($p_{MaxTerCapUp}$ = 9.00 BAM/MW/h),
- The price cap for capacity for downward manual frequency restoration reserve amounts to 2.10 BAM/MW/h,
($p_{MaxTerCapDow}$ = 2.10 BAM/MW/h),
- The price coefficient of the price cap for the balancing energy for upward manual frequency restoration reserve amounts to 6.0
($k_{MaxTerEnUp}$ = 6,0),
- The price cap for energy for upward manual frequency restoration reserve amounts to 659.64 BAM/MWh
($p_{MaxTerEnUp}$ = 659.64 BAM/MWh),
- The price coefficient of the price cap for the balancing energy for downward manual frequency restoration reserve amounts to 3.65
($k_{MaxTerEnDow}$ = 3.65),
- The price cap for energy for downward manual frequency restoration reserve amounts to –401.28 BAM/MWh
($p_{MaxTerEnDow}$ = –401.28 BAM/MWh),
- Coefficient of charges for non-provided tertiary control capacity amounts to 1.1
($k_{PenTerCap}$ = 1.1).

Article 4
(Imbalances)

The coefficients for calculation of imbalances shall be determined as follows:

- Coefficient with a positive imbalance price amounts to 1
(k_+ = 1),
- Coefficient with a negative imbalance price amounts to 1
(k_- = 1).

Article 5
(Control of Voltage and Reactive Power)

The compensation coefficient for operation of generators in the capacitive regime shall amount to 0 (kRG = 0).

Article 6
(Excessive Withdrawal of Reactive Power)

The price coefficient for excessive withdrawal of reactive power form the transmission system shall amount to 0 (k_R = 0).

Article 7
(Final Provisions)

(1) Upon entry into force of this Decision, the Decision on determination of coefficients and price caps for ancillary services (Official Gazette of BiH, 68/17) shall cease to have effect.

(2) This Decision shall enter into force on the day of its adoption and it shall be published in the Official Gazette of BiH.

Number 04-28-5-326-1/21   Chairwoman of the Commission
8 December 2021
Tuzla   Branislava Milekić

Statement of Rationale

The coefficients and price caps for ancillary services are determined in accordance with the Tariff Pricing Methodology for services of electricity transmission, operation of an independent system operator and ancillary services – Second consolidated version (hereinafter: the Tariff Methodology). In the present implementation of the BiH power system balancing model, some tendencies had been observed so in line with the conduct of participants and trends present on the market there arose the need for new adaptation of the level of coefficients and price caps for ancillary services.

As the provision of necessary scopes of automatic frequency restoration reserve (secondary reserve) is crucial for the efficient power system balancing, the price cap adaptation for the provision of this service was done to this end. During the six-year period of balancing market operation, an average level of providing automatic frequency restoration reserve ranged from 60% to 80% depending on the observed year. A shortage of this service was observed in particular during the non-peak period (00-06hrs), which was caused by the technological mode of operation of hydropower capacities. In this context, there were reasons for stimulating the rise of quantities on the supply side by increasing price caps for capacities for automatic frequency restoration reserve. However, it was questionable if such approach would result in an increased offer of capacities taking into consideration the mentioned technological constraints limiting the offer by generating units during the off-peak period. The price caps for capacities for upward and downward manual frequency restoration reserve was also maintained within the previous values, as the prices offered and accepted in the previous period were considerably lower than the price caps and the physical scope of the offered capacities was higher than needed by the electric power system.

Pursuant to Article 31 paragraph (5) of the Tariff Pricing Methodology, the price cap for balancing energy for downward manual frequency restoration mFRR equals to the product of the value of the electricity reference price in the market p_{MR} and coefficient $k_{MaxTerEnUp.}$ According to the information from the letter of the Independent System Operator (NOS BiH) number: 1433-1/21 of 6 December 2021, the procedure for annual energy procurement for covering of losses in the transmission system, the price of which is relevant for determination of the reference price p_{MR} had not been completed as the offered bids were significantly higher than the planned procurement value. Namely, the offered prices for annual procurement of energy for covering of losses in the transmission system were several times higher than the current retail prices in Bosnia and Herzegovina, which on average amount to 150 BAM/MWh, excluding taxes and levies. Taking into account the level of costs for the procurement of energy for covering of losses, the tariff for system service would reach the level which is five times higher than the applicable one, which in turn would cause an enormous increase in costs of the distribution system operators, that is, the electricity price for end users of electricity.

For this reason, pursuant to Article 26 paragraph (6) of the Tariff Pricing Methodology, the average price reached within the previously completed procedure for procurement of energy for covering of losses, which amounted to 109.94 BAM/MWh, was taken in order to determine the price caps.

In the second half of 2021, the prices of all energy products have recorded an unprecedented rise on the wholesale energy markets. The applicable wholesale electricity prices are higher than the retail prices, which is contrary to economic theory and practice. Furthermore, the applicable wholesale prices in BiH are not in correlation with the actual production costs. This results in the serious distortion and disturbances of prices and affects the relationships between market participants on the BiH electricity market.

Analysing the causes of the significant disturbances on the global and European markets of energy products, it is noticeable that there is an increase in prices of natural gas and imported coal on the supply side as well as a rise in the price of greenhouse gas emission allowances with the coexisting increase in demand for energy products stimulated by easing the COVID-19 pandemic measures which were introduced in 2020. However, taking into consideration that the electricity producers in BiH do not pay for greenhouse gas emission allowances and that the increase in prices of natural gas and imported coal do not affect electricity generation costs in BiH, which range from 30 to 105 BAM/MWh, depending on producers and types of generation technology, and that no significant rise in generation costs can be expected in the near future, it is reasonable, beyond any doubt, to keep the price for covering of electricity losses at the 2021 level, until the NOS BiH is in position to procure electricity for covering of losses in the transmission system at prices which will reflect generation costs and will not cause tariff shocks to end customers. At the same time, the ISO BIH specifies the missing scopes of electricity and the entities to provide the required service, that is, provide energy for covering of losses applying the appropriate price (109.94 BAM/MWh), which is all done in accordance with Article 26 paragraph (6) of the Tariff Pricing Methodology.

Under Article 33 of the Tariff Pricing Methodology, generating units connected to the transmission network maintain the voltage within prescribed limits at their own expense in accordance with the Grid Code and their operational charts and, exceptionally, in a situation with increased voltage levels in the transmission system, SERC may prescribe a compensation to be paid to generating units for operation in the capacitive regime providing that the NOS BiH carries out an analysis indicating that such regime of operation of generating units substantially contributes to keeping the voltage levels at 400 kV and 220 kV nodes within the limits prescribed by the Grid Code. Due to lack of this analysis, it is determined that the coefficient of compensation for operation of generating units in the capacitive regime amounts to zero ($k_{RG} = 0$).

Furthermore, the price coefficient for excessive withdrawal of reactive energy from the transmission system is set to zero ($k_R = 0$) as in a situation with increased voltage levels in the transmission system and the existing surplus of reactive power and capacity, withdrawal of reactive energy from the transmission system has a positive impact on the voltage levels and this manner withdrawal of reactive energy is further stimulated.