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**REGULATORNI URED ZA ENERGIJU**  
**ENERGY REGULATORY OFFICE**



# **Final Report on TSO/MO Maximum Allowed Revenues**

**Response to comments**  
**(Relevant tariff year 2021)**

**October 2021**



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## 1 Summary

This document presents the responses to the comments provided by stakeholders and the final proposal of ERO regarding Maximum Allowed Revenues for the Transmission System Operator and Market Operator (TSO/MO) for relevant tariff year 2021.

Following the initial evaluation of the Applications regarding the Maximum Allowed Revenues for licensee of the Transmission System Operator and Market Operator, the licensee and other stakeholders had the opportunity to submit their comments through public consultation for a period of two weeks.

The review process for the relevant tariff year 2021, had to be concluded with decisions by the Board of ERO by the end of March 2021, but this did not take place given that the Board was not functional until 2 August 2021, when it was complemented upon the election of two members and the chairman by the Assembly of the Republic of Kosovo. Immediately after the completion of the Board, ERO continued with the tariff review process. ERO had prepared the Consultation Report in February 2021, which was published for consultation on 24 August 2021. The Consultation Report contained ERO's initial assessment of licensee applications regarding their requests for revenues for the relevant tariff year 2021. All calculations were based on available data for 2020 and forecasts for 2021.

During public consultation, ERO received comments and additional important information, which were taken into consideration in the final evaluation of the licensee revenue proposal. The main changes are related to the increase of wholesale energy prices as well as the increase of electricity consumption. This has been mainly influenced by international energy markets/exchanges and the application of carbon taxes in EU countries. Given that these factors have affected the costs of the TSO/MO, and were beyond its control, ERO in the final evaluation has taken into account these circumstances and has re-evaluated the costs for purchase of energy for recovery of losses from KOSTT, and has also reflected the changes in electricity consumption. All these financial impacts are reflected in the final TSO/MO MAR for the relevant tariff year 2021.



## **2 KOSTT comments on ancillary services**

KOSTT clarifies that based on the legal framework in force and the Procedure for Electricity Trading, KOSTT is obliged to carry out the procurement of ancillary services based on the market and from service providers who meet the legal and administrative criteria set out in this procedure. Among other things, KOSTT clarifies the technical aspect of the agreements and other aspects of calculation of ancillary services.

KOSTT explains that it has signed a contract for the services of Manual Frequency Restoration Reserve (mFRR) with KESH JSC. on 24.12.2020 which is activated from 01.01.2021 and ends on 31.12.2021. The required amount of balancing services for 2022 shall be calculated by KOSTT and also the cost of these services should be estimated and proposed during periodic reviews and during regular adjustments using the forecast for required purchases of services for the TSO for the relevant tariff year. In the forecast of prices for balancing services for 2022 should be taken into account the increase in the price of electricity in the European electricity market and in the region as well as the lack of balancing capacities within the AK block.

### ***ERO's response***

ERO, following the clarifications received from KOSTT, has recognized the level of costs of ancillary services according to the contract realized by KOSTT. ERO, following the comments received from KOSTT, has requested information regarding current data and forecasts for ancillary services costs. As there may be differences between the allowed and realized costs which result from the need to activate these services, ERO will take such differences into account in the next tariff review.

## **3 Supply of Municipalities in the North of Kosovo**

KOSTT explains that according to the obligation imposed by the Energy Regulatory Office in the License for Electricity Transmission System Operator it is supplying municipalities in the northern part of Kosovo. This obligation has not been accompanied with the inclusion of these costs in the revenues allowed for KOSTT and as a result the financial situation of the company will become more difficult every day. KOSTT is covering these costs without a source of revenues, therefore we request from ERO to cover these costs or remove the obligation to supply the respective municipalities.

### ***ERO's response***

ERO reminds KOSTT that the case referred to by KOSTT for covering the electricity supply of four municipalities in northern part of Kosovo through final customer tariffs is in court and we still do not have a meritorious Judgment on this case. Therefore, until the promulgation of the meritorious and final Judgment under the Law on Administrative Disputes, the costs of electricity supply for the four municipalities of northern Kosovo according to the Decision of the Court will not continue to be covered through final customers tariffs. As a result, ERO will not take any regulatory action in this regard.



## **4 Reasonability of the requests for amendments in Investment Plan 2018-2022**

KOSTT has submitted comments regarding the amendments of the investment plan 2018-2022. The comments are related to the requests for projects which are contractual obligations from the Connection Agreement KOSTT-ENTSO-E, and emergency projects due to security of supply, cyber security, adjustments to developments in the DSO network, etc.

ERO instructs KOSTT to update the Transmission Development Plan, incorporating the projects required during this tariff process, according to the final decision of the ERO Board. Regarding the projects that will not be recognized during this process, KOSTT should provide justifications for such projects, by relocating them to a more remote period within the DP.

During regular tariff adjustment process, KOSTT continuously requests additional projects or review of the investment plan which is approved for a five-year period. Based on the rules on allowed revenues as well as the Rule Capital projects Assessment in Transmission and Distribution Network, ERO allows the review of the projects during the regulatory period, within the determined criteria. However, ERO encourages KOSTT to focus on the realization of the projects which are vital to the security of supply, especially in some critical regions such as Fushë Kosovë, Ferizaj, Malishevë, etc. These projects were allowed by ERO during the review of the KOSTT 5-year investment plan, and had high priority since then, however they have not been realized yet, due to different reasons. Among the main reasons, according to KOSTT, are the arrangements with financial institutions (KfW and EBRD) for funding of these projects, the lack of the quorum of KOSTT's Board, delays in PRB etc. However, ERO evaluates that KOSTT should have handled the eventual barriers on time, in order not to have delays in realization of the investments considered with priority for security of supply.

The situation created by the (un)security of supply, especially during the winter periods in some regions of Kosovo, is intolerable and shall be avoided as soon as possible. ERO had allowed some emergency projects at DSO level, precisely due to the non-realization of projects from KOSTT's side.

ERO has also analyzed the financial situation of KOSTT, and it shows that KOSTT could have carried out the above-mentioned investments with self-financing. Therefore, ERO requires from KOSTT to start the investments in question as soon as possible, without further delays, given that these projects are necessary for the security of electricity supply.

Additional projects that KOSTT has required to be recognized during this tariff process are described below:

### **4.1 Realization of transmission infrastructure for transition from 10kV to 20kV in linë with requirements of KEDS**

KOSTT submitted a request for additional investments in Pristina, as a result of works that are being realized by KEDS, with the purpose of converting the voltage level in the city of Pristina from 10kV to 20kV line. Within this, in order for KOSTT to adjust the conversion from 10kV to 20 kV, the supply with new 20 kV modular cabinets, dischargers, insulators, connecting elements, etc is required.

KOSTT in its comments on the Consultation Report explains: *Since KEDS is in the phase of implementation of this project, which is closely related to the assets of KOSTT as they are interconnected, the works must definitely be completed in order to prevent the stagnation of this*



*process and failure to implement this project would reflect on disrupting the supply of electricity to customers.*

### ***ERO's response***

The request for the projects that support DSO investments for conversion from the voltage level of 10kV to 20kV, on the application, was also submitted by KOSTT on the tariff application dated on 27 January 2021. In principle, ERO takes into account the fact that such investments from KOSTT's side result from KEDS investments. ERO is in the phase of the review of KEDS Development Plan and investments and without an epilogue of this process, it cannot decide on handling the request of KOSTT.

It should be emphasized that DSO and TSO are obliged to priorly harmonize their development plans and then submit them for review by ERO.

## **4.2 Supply of busbar Adapting Machines for MRNS Team**

According to KOSTT, this project is necessary for the projects that are being developed "Conversion of voltage from 10kV to 20kV by KEDS" for SS Prishtina 2, SS Prishtina 3 and SS Prishtina 6, etc. Also, eventual interventions in KOSTT substations are necessary. The machine is used for bending, drilling and cutting 10kV (20kV) copper busbars.

### ***ERO's response***

ERO is aware that such a machine can be used for a longer period and that the rental process may result economically unfavorable. ERO considers reasonable the request of KOSTT and proposes to recognize such investment in an amount of 40.000 Euros. The purchase of the machine is expected to take place in the fourth quarter of 2021, and the return costs and depreciation costs related to it, will be handled in accordance with the Rule on TSO Revenues, therefore this will not have a financial impact in this relevant tariff year.

## **4.3 Project "Integration in the ENTSO-e-VP platform (RCGE function) Access VP Platform- Access MVC, STA/OPC"**

KOSTT explains that following the implementation of the KOSTT\_ENTSO Connection Agreement, KOSTT has started on 14 December 2020 to operate as a Regulatory Area within the Albania-Kosovo block, known as the AK Regulatory Block.

ENTSO-E has established an expert group (PG TSO KOSTT) to monitor KOSTT in meeting the requirements arising from SOGL (System Operation Guideline) and SAFA (The Synchronous Area Framework Agreement).

The requirements are mainly technical, which are related to:

- system operation security
- cross-border trade exchanges and meeting the criteria and the Third Energy Package of the European Commission.



- provision of ancillary services, etc.

According to KOSTT, all TSOs in Europe are integrated into these platforms, and use these tools, so it is not only the obligation of KOSTT, but of all TSOs

### ***ERO's response***

ERO has continuously supported KOSTT in the independence process, allowing necessary investments in infrastructure and technology, in order to be able to operate according to legal and technical requirements required by local and international legislation. Based on the detailed reasoning provided by KOSTT, it is understood that the integration into the ENTSO-E-vp (MVC, STA/OPC) is an obligation of all TSOs in Europe.

Following the review of the project in question, ERO considers reasonable the request of KOSTT and proposes to recognize this investment, in an amount of 500 thousand Euros.

The realization of this investment is foreseen to be carried out in the fourth quarter of 2021, and the return costs and depreciation costs related to it shall be handled in accordance with the Rule on TSO Revenues, therefore this will not have any financial impact in this relevant tariff year.

## **4.4 Project “Cyber Attacks Detection Software”**

KOSTT explains that since 2014, the operator has been using the F-Secure antivirus and considers it quite effective for protection against cyber attacks.

In addition to virus protection, F-Secure has developed other software for protection against cyber-attacks. One of them is the software 'F-Secure Rapid Detection & Response'. The implementation of 'F-Secure Rapid Detection & Response' results in contextual visibility into the security of the ICT system, we can identify threats and we can stop attacks before they occur in damaging sensitive, confidential data or protecting them from exposure to unauthorized parties as a cybercrime.

According to KOSTT, detection of cyber-attacks through monitoring by ICT staff is impossible: this detection is performed with a professional software, such as 'F-Secure Rapid Detection & Response' software. Therefore, it is imperative that we have information about the security of our system through this software.

Based on the current KOSTT infrastructure, the cost of this software is EUR 35,000.

### ***ERO's response***

ERO reviewed the request of KOSTT in relation with the Cyber Attacks Detection Software. Following additional clarifications provided by KOSTT regarding the project in question, the investment in cyber attacks detection software, ERO understands that this investment is not related to the protection of critical operating assets, therefore ERO does not propose that this investment be allowed for this phase.



#### 4.5 Project ID/10/1 – Variable shunt reactor 100 MVAR, 400 kV in SS Ferizaj 2

In its comments on the Consultation Report on TSO/MO Revenues, KOSTT submitted a request for investment in Shunt Reactor, as a required plant to enable the security of operation and electricity supply. Among others, KOSTT argued that the need for such plant is based on the regional study entitled "Regional Feasibility Study for Voltage Profile Improvements in Western Balkans", which identified that the regional network of the six Western Balkan countries (WB6) has a reactive power surplus of about 800 MVAR. The distribution, or contribution of each TSO to this reactive power surplus is presented in the following table:

Table 1 Surpluses of reactive power for six TSO's of the region

TSO	CGES	KOSTT	NOS/EL.PRENOS	MEPSO	EMS	Total
0	207	75	327	143	42	794

KOSTT argues that according to the study, by 2030, KOSTT should install reactive power reactors in the range from 120MVAR to 150MVAR, based on data from long-term regional models. Considering the uncertainties of the implementation of these plans and taking into account that the new generators must meet the technical conditions to support the reactive power system, then initially KOSTT will install the 100 MVAR variable reactor at the location recommended by the study. According to the information, Albania has installed a 120 MVAR reactor in the 220 kV network and that the second 120MVAR reactor is expected to be installed soon in SS Elbasan. Also, in the next two years, the Montenegrin operator CGES is expected to install the 250MVAR reactor in SS Lastva. In its request for this project, KOSTT presented the technical and financial analysis (CBA) in conformity with the ERO Rule on Assessment of Capital Investments in transmission network.

#### ***ERO's response***

KOSTT requested in the application for annual adjustments, the approval of the project "ID/10/1-Shunt Variable Reactor 100MVAR, 400kV in SS Ferizaj 2". ERO during the public consultation phase requested from KOSTT to present the evaluation of the project in line with the Rule on Capital Investments Assessment, according to which the technical and economical parameters such as CBA, NPV, costs per unit, aspects of the security of operation, legal requirement, alternatives as well as the description of works related to the project.

Along with the comments on the consultation paper, KOSTT offered detailed analysis on the project in question, therefore meeting all the legal requirements related to capital investments,

ERO analyzed the project "ID/10/1-Shunt variable reactor 100MVAR, 400kV in SS Ferizaj 2" and considers reasonable the request of KOSTT and proposes to allow such investment in the amount of 3.14 million Euros. According to consultations and clarifications of KOSTT, this project is expected to be realized by the end of 2024, and the return costs and depreciation costs related to it will be handled according to the Rule on TSO Revenues, therefore this will not have any financial aspect in this relevant tariff year and neither for 2022.





## 5 Adjustment of costs for recovery of TSO/MO losses

Regarding energy purchases for recovery of losses, it should be noted that ERO in the initial evaluation had taken into account the trend of historical import prices, as well as the application of KOSTT. However, as the tariff process has not been concluded due to the lack of the quorum of ERO Board, we now have new data which present the actual situation of the wholesale energy market. As a result of changing conditions in international energy markets, even the energy sector operators in Kosovo have been affected by high prices. In addition to the change in prices, the energy sector in Kosovo during the period January-July 2021, has also experienced an increase in electricity consumption compared to planning according to the electricity balance.

ERO, based on the legal framework in force, following the conducted evaluation, considers it reasonable to update the cost forecast for recovery of losses in the transmission network. ERO proposes to recognize the additional costs for the purchase of electricity as incurred for the period January-July 2021, submitted by the TSO/MO through regular reporting. For the remaining part of 2021, ERO, after evaluating the price trend in credible energy exchanges and relevant studies related to energy price forecasts, has reviewed the costs of purchasing energy for the remaining period of 2021. Wholesale energy prices are forecast to be high in 2022 as well. According to S&P Global the forecast of energy prices in Europe for 2022 is projected to be in the range of 80-90 € / MWh<sup>1</sup>. For the remaining period of 2021, ERO has applied the price of 90 €/MWh for forecasting energy purchases from imports. This is done in order to reflect the real costs of electricity supply and not to carry forward high costs for the next year, which could cause large fluctuations in electricity tariffs for final customers and would jeopardize the liquidity of electricity sector in general.

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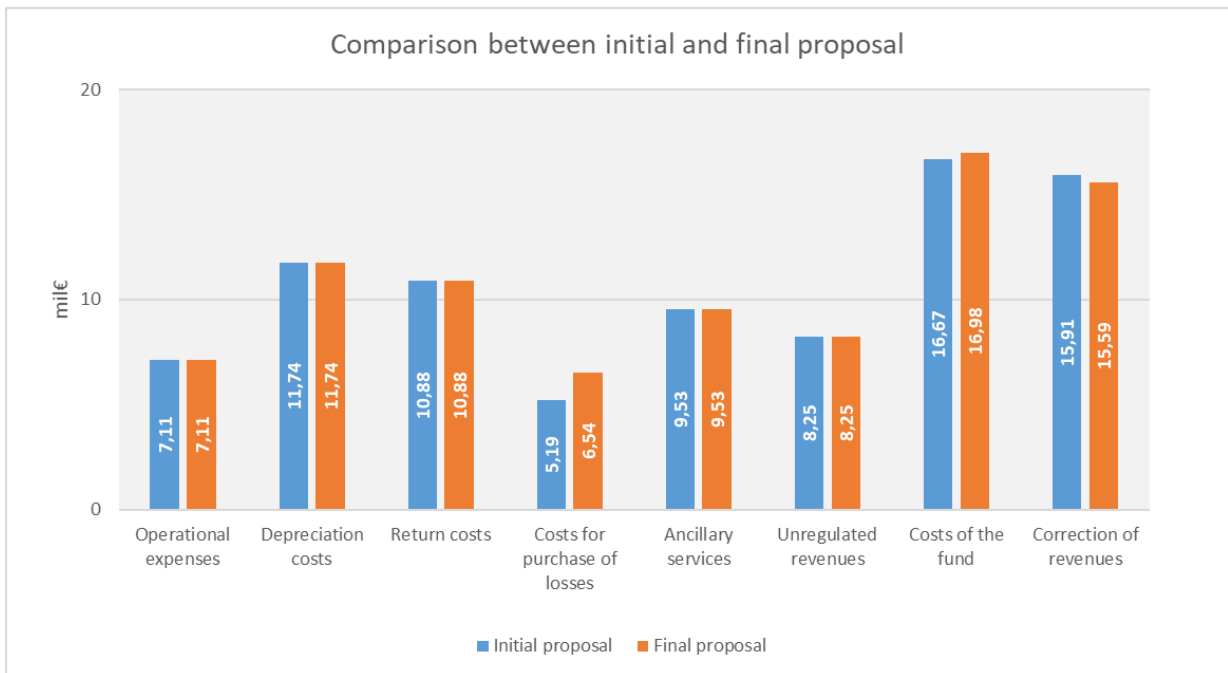
<sup>1</sup> [www.spglobal.com](http://www.spglobal.com); [European power forecast to hold near record levels to 2023: Platts Analytics | S&P Global Platts \(spglobal.com\)](#); visited on 28 September 2021, at 16:03



## 6 Maximum Allowed Revenues for TSO/MO in relevant tariff year 2021

In the final evaluation of Maximum Allowed Revenues for the TSO/MO, ERO has analyzed each of the cost components, and made their adjustments compared to the initial evaluation to take into consideration the current circumstances of the electricity market. As noted above, one of the main factors that has caused the differences compared to the planning for 2021 is the changes in the costs for purchase of losses and the increase in consumption. The other cost components have remained the same, as set out in the multi-year review adjusted for indexing parameters.

In order to have a clearer view of the comparison between the initial and final proposal, the following figure shows the comparison of MAR cost components:



Following the analysis of all data and comments submitted by stakeholders, ERO's final proposal for Maximum Allowed Revenues for the Transmission System Operator and Market Operator for 2021 is as follows:

*Table – Proposal of TSO/MO MAR (KOSTT) for relevant tariff year 2021*

Maximum Allowed Revenues	Allowed/Actual 2020	Initial Proposal 2021	Final Proposal 2021
<b>Indexation parameters</b>			
Efficiency factor	1.5%	1.5%	1.5%
HICP	0.26%		
Euribor	-0.3%		



S Factor	7.60%		
Interest rate - It	7.30%		
<b>Operational and maintenance expenses (OPMct)</b>			
Evaluation during PRR2 €m	7.19	7.09	7.09
Allowed -OPMct = OPMct-1 * (1 + CPIit-1) * (1 – Et)* (1 – Pt) €m	7.28	7.11	<b>7.11</b>
Adjustments of maintenance costs: €m	1.04		
Actual €m	0.75		
Difference by applying sharing factor 50/50 €m	(0.15)		
Adjustments for OPEX for Vallaq €m	(0.08)		
<b>Depreciation costs (DEPct)</b>			
Evaluation during PRR2 €m	11.23	11.71	11.71
Allowed - DEPct = DEPct-1 * (1 + CPIit-1) * (1 – Pt) €m	11.36	11.74	<b>11.74</b>
<b>Kostot e kthimit (RTNct)</b>			
Evaluation during PRR2 €m	10.22	10.85	10.85
Allowed - RTNct = RTNct-1 * (1 + CPIit-1) * (1 – Pt) €m	10.34	10.88	<b>10.88</b>
<b>Costs of losses (LSSct)</b>			
<b>Forecast</b>			
LSSAt	1.78%	1.78%	1.78%
REUEt GWh	6,238	6,645	6,944
WHEAt €/MWh	46.46	46.16	<b>55.78</b>
Forecast cost of losses €m	5.16	5.19	<b>6.54</b>
<b>Actual</b>			
LSSAt	1.78%	1.78%	1.78%
REUEt GWh	6,205		
WHEAt €/MWh	41.54		
Actual cost of losses <sup>2</sup> €m	4.34		
<b>Fund</b>			
Forecast €m	17.78	16.67	<b>16.98</b>
Actual €m (initial evaluation)	(6.71)		
Actual €m (final evaluation)	(6.41)		
<b>Ancillary services</b>			
Forecast €m	2.73	9.53	<b>9.53</b>
Actual €m	0.23		
<b>Adjustments</b>			
Unregulated revenues			
Forecast €m	(0.06)	(0.06)	(0.06)
Actual €m	(0.43)		
Revenues from ITC mechanism			
Forecast €m	(0.40)	(3.60)	(3.60)
Actual €m	(0.22)		
Adjustments for (2017 and PR1)	(1.26)	(1.26)	(1.26)

<sup>2</sup> Adjusted to the load in the north



Revenues from KEK:

Forecast €m	(3.33)	(3.33)	(3.33)
Actual €m	(3.05)		
<b>KREV – Revenues correction factor</b>			
Revenues correction factor t-1 €m	(3.72)	(15.91)	(15.59)
AACT-1 – actual costs for year t-1 €m	17.94		
ARRt-1 - actual revenues for year t-1 €m	32.77		
<b>KREVt = (AACT-1 – ARRt-1) * (1+ It) €m</b>	(15.91)		
<b>Maximal revenues without costs of the fund (Net KOSTT)</b>			<b>28.84</b>
<b>RES fund costs<sup>3</sup> (net = 16.98<sub>t</sub> – 6.88<sub>t-1</sub>)</b>			<b>10.10</b>
<b>MAR – general Maximum Allowed Revenues €m</b>	45.84	36.95	<b>38.94</b>

<sup>3</sup>The value of 6.88 is calculated as = 6.41\*(1+7.3%); where 6.41 is the correction for 2020, whereas 7.3% is the interest rate