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REGULATORNI URED ZA ENERGIJU
ENERGY REGULATORY OFFICE



Final Report -Efficiency Factor

Third Periodic Review of Input Values for the Regulatory Period (2023-2027)

Responses to Comments

DISCLAIMER

This Report of Responses is prepared by ERO with the purpose of informing stakeholders in the energy sector. The report does not represent a decision of ERO and should not be interpreted as such.

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Table of abbreviations

The following are the definitions of abbreviations used in this document:

CIGRE	International Council on Large Electric Systems
DSO	Distribution System Operator
ERO	Energy Regulatory Office
ERRA	Energy Regulators Regional Association
KOSTT	Transmission System and Market Operator J.S.C
KEDS	Kosovo Electricity Distribution Service J.S.C
MO	Market Operator
OPEX	Operational expenditure
PRR	Periodic Regulatory Review
TSO	Transmission System Operator
CIGRE	The International Council on Large Electricity

1 Introduction

Based on the mandate given in the Law on the Energy Regulator and the approved rules for the Maximum Allowed Revenues for Transmission System Operator and Market Operator (TSO/MO-KOSTT) and Distribution System Operator (DSO/KEDS), ERO has started the process of the Third Multi-Year Tariff Review (Regulatory Period – “PRR3”) to determine the Maximum Allowed Revenues of the licensees KOSTT and KEDS licensees for the upcoming 5-year regulatory period 2023-2027 (1 April 2023 – 31 March 2028).

On 26 May 2022, ERO sent to the licensees (KOSTT and KEDS), as well as copies to the Assembly and the Ministry of Economy, the "Letter of Initiation" to inform them on ERO's Plan regarding the Third Periodic Review for the regulatory period 2023 - 2027.

In order to determine the Maximum Allowed Revenues (MAR) for TSO/MO (KOSTT) and DSO (KEDS), ERO will determine in advance the main variables of regulatory parameters (inputs) in order to ensure sufficient time and information for the parties in the public consultation process. This practice was also used in the two previous tariff reviews. The values of the regulatory parameters that will be set following the public discussion are:

- The initial level and expected rate of reductions in transmission and distribution system losses.
- Expected rate of efficiency improvements in operating costs of TSO and DSO, which is the subject of this consultation report.
- Weighted Average Cost of Capital (WACC) of TSO and DSO.
- The appropriate life expectancy of the assets to be used for purposes of calculating the regulatory depreciation of new investments.
- Loss sharing factor.
- Savings sharing factor which is applied to savings that exceed the efficiency factor, and
- Any other input parameters that the regulator may deem necessary.

This report will focus on the Efficiency Factor for the TSO/MO and DSO for the period 2023 – 2027 and serves for public consultation.

ERO published a Consultation Report with its proposals for the Efficiency Factor for the Transmission System Operator and Market Operator (TSO/MO-KOSTT) and Distribution System Operator (DSO/KEDS), on 13th September 2022. Three groups of comments were received, from KOSTT, KEDS and CIGRE. All groups of comments were published on the official website of ERO along with this Report.

This Report of Responses summarizes the comments received from KEDS, KOSTT and CIGRE on the proposed Efficiency Factor in the Regulatory Period PRR3 and ERO's responses on them.

Following the publication of this Report, ERO Board will review and carry out the final determination of Efficiency Factor, which will be included in the MAR for DSO and TSO/MO for the Third Regulatory Period (PRR3).

The document is structured as following

- Part 2 offers a summary of the proposal given in the Consultation Report;

- Part 3 presents the comments received on the Efficiency Factor Consultative Report as well as ERO's responses on them;
- Part 4 offers the final proposal of ERO on the Efficiency Factor applicable to the TSO/MO and the DSO, for the Regulatory Period PRR3 (2022 – 2027).
- Annex 1 presents the comments and ERO's answers in a table format.

2 ERO's Proposal on the Efficiency Factor Consultation Report

The Consultation Report on the Efficiency Factor published on 13th September 2022, proposes an Efficiency Factor of 1.5% - 2% per year on controllable OPEX for both KEDS (DSO) and KOSTT (TSO/MO) during PRR3.

ERO sees the Efficiency Factor as crucial to providing incentives to licensees to increase efficiency, within a market with limited competition. The licensees should aim to increase efficiency wherever possible. There are no comparisons with similar enterprises in Kosovo for the electricity sector, therefore for these activities the similarities between the electricity industry in those countries and that of Kosovo are taken as a reference;¹

Due to the fact that Kosovo does not have enterprises to compare the data within the country regarding these activities, ERO was not able to set an efficiency factor which includes a catch-up effect, and thus assumes that both operators (KEDS and KOSTT) are operating at the efficiency frontier², or near frontier levels, thus the catch-up effect is zero. ERO however considers that efficiency gains can still be made considering the frontier shift, by implementing new technologies and innovative management practices. Moreover, ERO considers that the operators have shown in the past that efficiency gains are achievable by both operators.

ERO bases the level of Efficiency Factor on levels implemented by different regulators for DSOs and TSOs.

Further, based on previous regulatory practices, ERO proposes that the savings sharing factor for savings that exceed the efficiency factor for maintenance and repair costs will be shared between the licensee and the customers according to the 50/50 factor, as applied in MYT 2 as well. In the case of expenses exceeding the allowed level, they will be covered by the licensees, in line with the Rules on Revenues.

¹ Catch-up efficiency - represents the expected time for which the enterprise will reach the efficiency of the enterprises with the best performance

² Frontier efficiency - represents the rate at which frontier firms are becoming more efficient over time, especially as a result of technological improvement

3 Comments of parties and ERO answers

3.1 Comments of DSO (KEDS) on the Efficiency Factor

3.1.1 Comments of the DSO (KEDS)

The Distribution System Operator does not agree with ERO's proposals on the Efficiency Factor and proposes that the efficiency factor should not be applied. The arguments and comments are summarized below:

- The DSO in the first regulatory period has reduced operating expenses by 11% cumulatively, while in the second regulatory period another 8%, reducing the possibility of additional efficiency to zero for the following years. There has been an average 4% yearly increase of active customers, which corresponds to the growth percentage of customers per head of employee. The DSO has increased efficiency by maximizing the work per head of worker and minimizing the cost of service.
- The price of goods and services has increased significantly during the past years. The inflation rate in August 2022 in the EU area reached 9.1% compared to July 2022 of 8.9% which gives signals of continuous price increases. During the determination of efficiency factors in operating expenses, the regulator must take into account actual costs, economic expectations of prices in order to ensure the financial stability of the company in terms of cash.

3.1.2 ERO's responses

ERO's responses to KEDS are as follows:

- In the Consultation Report ERO states that due to lack of compatible benchmarking calculations, ERO, based on the data reported by the licensee in the previous realized period, assumes that companies operate in frontier or near frontier levels. Or in other words, ERO already assumed that the DSO operates at near frontier and recognized that around 1.6% has reduced the operational expenses for the second regulatory period. Thus, the efficiency factor of 1.5-2% is based the frontier shift, the value of which is set based on expert judgement and based on efficiency factors set by other regulators. The frontier shift assumes that even though companies have reached their peak efficiencies in the past years, due to economies of scale, new innovation and new technologies, companies can further increase their efficiency. ERO informs them that it does not apply "Myopic Behavior" to licensees when in the short term they give results, but they can have a bad impact in the future (e.g.: reduction of staff expenses, reduction of new service & product development, purchase of cheaper materials of lower quality so that the company does not exceed its budget) etc.
- The increased price of goods and services as well as the inflation effect, are handled by adjusting the base OPEX for the yearly HICP (Harmonized Indices of Consumer Prices), and do not affect the efficiency factor.

KEDS comments did not result in a change from ERO initial proposal.

3.2 Comments of TSO/MO (KOSTT) on the Efficiency Factor

3.2.1 Comments of the TSO/MO (KOSTT)

KOSTT considers that the efficiency factor should be set at zero. KOSTT presents the following summarized arguments and comments:

- KOSTT states that ERO will specifically include five of the issues raised by KOSTT on their report dated on 29 July 2022.
- The level of the Efficiency Factor was set arbitrarily at 1.5% in prior tariff reviews using a methodology mainly designed for highly developed countries.
- As a state-owned company, KOSTT does not have enough flexibility to manage costs, such as number and salary of employees, negotiating prices with suppliers etc. ERO did not take those points into consideration in arriving at its position.
- The Efficiency Factor is not significantly used in ERRA (Energy Regulatory Regional Association) Member States, and the countries presented in ERO's report are not comparable to Kosovo in size or level of management and technical expertise.
- Cash constraints have impacted KOSTT in the past, resulting in deferring or canceling maintenance projects. Since the impact of maintenance cost reductions are primarily felt in the future, the hard decision is to defer projects. Deferring maintenance is not a prudent management practice and it will eventually impact service levels and result in higher cost in the future if equipment prematurely fails.

3.2.2 ERO's responses

ERO's responses to KOSTT are as follows:

- ERO will review the OPEX through the Multi-Year Periodic Review, and will adjust it in conformity with the rules on revenues. This comment does not have an effect on the final decision on the efficiency factor.
- In the Consultation Report ERO states that due to lack of compatible benchmarking calculations, ERO, based on the data reported by the licensees in the previous realized period assumes that companies operate in frontier or near frontier levels. The efficiency factor of 1.5-2% is based the frontier shift, the value of which is set based on expert judgement and based on efficiency factors set by other regulators. Based on ERRA report dated in April 2020 titled "Regulatory Approaches to Revenue Setting for Electricity Transmission and Distribution System Operators", Electricity transmission businesses should be able to achieve growth in total factor productivity (TFP), if already operating at or close to the frontier, of around 2% annually. The corresponding Efficiency factor would be somewhat lower, allowing for that part of TFP growth included in economy wide price indices.
- Even though KOSTT is a state-owned operator, KOSTT has a level of independency on organizing and hiring staff. Moreover, KOSTT is also able to increase procurement efficiency while keeping in line with state guidelines on procurement practices, to ensure higher competition from suppliers.
- Companies which operate in a monopolistic market, and especially companies which are state-owned, are not exposed to the pressures of competitive markets. Thus, ERO believes

that the effects of competitive markets towards increasing efficiency should be simulated and incentivized through the Efficiency Factor.

Moreover, from the 10 countries which do not implement an Efficiency Factor for OPEX, 4 of them foresee the use of an X-factor, which is an efficiency factor for the whole revenue cap (both OPEX and CAPEX). Slovakia uses an X-factor of 3.5% for both TSO and DSO. Turkey uses X-factors up to 11.15% for their DSOs. Moldova uses an X-factor of 1% for both the TSO and DSO. Albania's secondary regulatory legislation foresees the use of an X-factor, however, implementation is still pending. Thus, a majority of ERRA members analyzed utilize an efficiency factor to simulate competition. The countries analyzed present evidence of what regulators deem as achievable from utilities. The average achievable levels are presented from 1.5 – 2%.

KOSTT comments did not result in a change from ERO initial proposal.

3.3 Comments of CIGRE on the Efficiency Factor

3.3.1 Comments of CIGRE

- While the Efficiency Factor is crucial in offering incentives for licensees to increase efficiency, within a market with limited competition, the situation of the new financial crisis which TSOs and DSOs are dealing with, should be considered.

3.3.2 ERO's responses

- ERO agrees with CIGRE's comment on the necessity of the Efficiency Factor, as well as the new circumstances created by the energy crisis. However, ERO believes that especially due to the energy crisis, companies should aim to further increase efficiency where possible.

4 ERO Final Proposal on the Efficiency Factor

ERO welcomes the received comments from all parties and values the past engagement of both the TSO and DSO in achieving efficiency within their controllable OPEX.

ERO believes that companies which operate in a monopolistic market, are not exposed to the pressures of competitive markets, and thus, the effects of competitive markets towards increasing efficiency should be simulated and incentivized through the Efficiency Factor.

While ERO acknowledges that setting an Efficiency Factor based on data and calculation is challenging due to the absence of the application of benchmarking techniques in Kosovo. ERO thus relies on expert opinion and efficiency factors implemented by other regulators, to set the efficiency factor at frontier shift levels excluding catch-up effect.

Based on the responses provided above, ERO's final proposal remains that an OPEX Efficiency Factor of 1.5 % per year for both KEDS (DSO) and KOSTT (TSO) during MYT3, should be implemented. This is in line with the scope for efficiency factors applied by other regulators and is supported by the comparison with the performance of the two network operators.

Efficiency factor proposed by ERO	MYT3				
Operators	2023	2024	2025	2026	2027
TSO/MO	1.5%	1.5%	1.5%	1.5%	1.5%
DSO	1.5%	1.5%	1.5%	1.5%	1.5%

Based on previous Regulatory Practice, ERO proposes that the savings sharing factor for savings that exceed the efficiency factor for repairs and maintenance costs will be shared between the licensee and the customers according to the 50/50 factor. In case of expenses exceeding the allowed level, they will be covered by the licensees in accordance with the rules on revenues.

Annex 1: Tabular summary of received comments and ERO answers

Reference	Comment	ERO answer	Impact on initial proposal
KEDS	The DSO in the first regulatory period has reduced operating expenses by 11% cumulatively, while in the second regulatory period another 8%, reducing the possibility of additional efficiency to zero for the following years. There has been an average 4% yearly increase of active customers, which corresponds to the growth percentage of customers per head of employee. The DSO has increased efficiency by maximizing the work per head of worker and minimizing the cost of service.	In the Consultation Report, ERO states that due to lack of compatible benchmarking calculations, ERO, based on the data reported by the licensee in the previous realized period, assumes that companies operate in frontier or near frontier levels. Or in other words, ERO already assumed that the DSO operates at near frontier and recognized that around 1.6% has reduced the operational expenses for the second regulatory period. Thus, the efficiency factor of 1.5-2% is based the frontier shift, the value of which is set based on expert judgement and based on efficiency factors set by other regulators. The frontier shift assumes that even though companies have reached their peak efficiencies in the past years, due to economies of scale, new innovation and new technologies, companies can further increase their efficiency. ERO informs them that it does not apply "Myopic Behavior" to licensees when in the short term they give results, but they can have a bad impact in the future (e.g.: reduction of staff expenses, reduction of new service & product development, purchase of cheaper materials of lower quality so that the company does not exceed its budget) etc. The increased price of goods and services as well as the inflation effect, are handled by	The comment did not have an impact on the initial proposal.

Reference	Comment	ERO answer	Impact on initial proposal
		adjusting the base OPEX for the yearly HICP (Harmonized Indices of Consumer Prices), and do not affect the efficiency factor.	
KEDS	The price of goods and services has increased significantly during the past years. The inflation rate in August 2022 in the EU area reached 9.1% compared to July 2022 of 8.9% which gives signals of continuous price increases. During the determination of efficiency factors in operating expenses, the regulator must take into account actual costs, economic expectations of prices in order to ensure the financial stability of the company in terms of cash.	The increased price of goods and services as well as the inflation effect, are addressed by adjusting the base OPEX for the yearly HICP (Harmonized Indices of Consumer Prices), and do not affect the efficiency factor.	The comment did not have an impact on the initial proposal.
KOSTT	KOSTT states that ERO will specifically include five of the issues raised by KOSTT on their report dated on 29 July 2022.	ERO states that it will take into consideration the points mentioned by KOSTT (points 5 – 9) and other issues that KOSTT will present when analyzing the base OPEX for the next regulatory period. However, ERO will further analyze these points and check for prudence and reason. ERO will review the OPEX through the Multi-Year Periodic Review Process. The comment did not have an impact on the final decision.	The comment did not have an impact on the initial proposal.
KOSTT	The level of the Efficiency Factor was set arbitrarily at 1.5% in prior tariff reviews using a methodology mainly designed for highly developed countries.	In the Consultation Report ERO states that due to lack of compatible benchmarking calculations, ERO, based on the data reported by the licensees for the previous realized period, assumes that companies operate in frontier or near frontier levels. The efficiency factor of 1.5-2% is based the frontier shift, the value of which is set based on expert	The comment did not have an impact on the initial proposal.

Reference	Comment	ERO answer	Impact on initial proposal
		judgement and based on efficiency factors set by other regulators. Based on ERRA report dated in April 2020 titled “Regulatory Approaches to Revenue Setting for Electricity Transmission and Distribution System Operators”, electricity transmission businesses should be able to achieve growth in total factor productivity (TFP), if already operating at or close to the frontier, of around 2% annually. The corresponding efficiency factor would be somewhat lower, allowing for that part of TFP growth included in economy wide price indices.	
KOSTT	As a state-owned company, KOSTT does not have enough flexibility to manage costs, such as number and salary of employees, negotiating prices with suppliers etc. ERO did not take those points into consideration in arriving at its position.	Even though KOSTT is a state-owned operator, KOSTT has a level of independency on organizing and hiring staff. Moreover, KOSTT is also able to increase procurement efficiency while keeping in line with state guidelines on procurement practices, to ensure higher competition from suppliers.	The comment did not have an impact on the initial proposal.
KOSTT	The Efficiency Factor is not significantly used in ERRA (Energy Regulatory Regional Association) Member States, and the countries presented in ERO’s report are not comparable to Kosovo in size or level of management and technical expertise.	Companies which operate in a monopolistic market, and especially companies which are state-owned, are not exposed to the pressures of competitive markets. Thus, ERO believes that the effects of competitive markets towards increasing efficiency should be simulated and incentivized through the Efficiency Factor.	The comment did not have an impact on the initial proposal.
KOSTT	Cash constraints have impacted KOSTT in the past, resulting in deferring or canceling maintenance projects. Since the impact of maintenance cost reductions are primarily felt in the future, the hard decision is to defer projects. Deferring maintenance	Moreover, from the 10 countries which do not implement and Efficiency Factor for OPEX, 4 of them foresee the use of an X-factor, which is an efficiency factor for the whole revenue cap (both OPEX and CAPEX). Slovakia uses an X-	The comment did not have an impact on the initial proposal.

Reference	Comment	ERO answer	Impact on initial proposal
	is not a prudent management practice and it will eventually impact service levels and result in higher cost in the future if equipment prematurely fails.	factor of 3.5% for both TSO and DSO. Turkey uses X-factors up to 11.15% for their DSOs. Moldova uses an X-factor of 1% for both the TSO and DSO. Albania's secondary legislation foresees the use of an X-factor, however, implementation is still pending.	
CIGRE	While the Efficiency Factor is crucial in offering incentives for licensees to increase efficiency, within a market with limited competition, the situation of the new financial crisis which TSOs and DSOs are dealing with, should be considered.	ERO agrees with CIGREs comment on the necessity of the Efficiency Factor, as well as the new circumstances created by the energy crisis. However, ERO believes that especially due to the energy crisis, companies should aim to further increase efficiency where possible.	The comment did not have an impact on the initial proposal.