



Republika e Kosovës
Republika Kosova - Republic of Kosovo

ZYRA E RREGULLATORIT PËR ENERGJI
REGULATORNI URED ZA ENERGIJU
ENERGY REGULATORY OFFICE



Consultation Report

Annual Adjustments of Maximum Allowed Revenues for TSO/MO

Relevant tariff year 2024

DISCLAIMER

This Consultation Report is prepared by ERO with the purpose of informing stakeholders. The report does not represent a decision of ERO and shall not be interpreted as such.

6 February 2024



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1 Introduction

The Energy Regulatory Office (ERO) is currently conducting the regular annual adjustment for the Maximum Allowed Revenues (MAR) to be recovered by the regulated companies. In this process, ERO will make the initial proposal for the updated MAR for the Transmission System and Market Operator (TSO/MO, KOSTT), the Distribution System Operator (DSO, KEDS) and will determine the revenues of the Universal Service Supplier (USS). This initial evaluation is based on the proposals submitted by the regulated companies, as well as the decisions on the Maximum Allowed Revenues for the regulatory period 2023-2027 for TSO/MO and DSO.

The price regulation is a tool used by ERO in order to set the Maximum Allowed Revenues – MAR that the regulated companies shall collect for provision of regulated services. MAR is set at a level that enables the regulated licensee to recover the reasonable operating and maintenance costs of their assets and realize a reasonable return on their investments. Also, ERO sets efficiency factors, targets for the decrease of losses, improvement of performance, which aim to increase the operating efficiency of the companies and provide incentives for fulfilling the targets or fines if the companies fail to achieve them.

The basic values for MAR components are determined in the periodic review conducted in 2023 and remain valid for a period of five years. The current review is related to the evaluation of MAR proposals presented by the regulated companies, taking into consideration the current data of 2023, in order to reach the determination of revenues for the relevant tariff year 2024. This review evaluates if the proposals of the licensees are calculated in accordance with the legal and regulatory framework.

ERO invites licensed companies, customers and all other interested parties to contribute to this process by reviewing and commenting on the data and views presented in this Consultation Report, so that the evaluation of the Maximum Allowed Revenues for Transmission System and Market Operator (TSO-MO/KOSTT) is accurate. These reports should also be analysed, referring to the final reports of the 2023-2027 Periodic Review.

The parties who want to present their eventual comments related to ERO's proposals are invited to submit them in writing at ero.pricing-tariffs@ero-ks.org, by 21 February 2024 at the latest. The comments can also be submitted via post at:

Energy Regulatory Office
Tariffs and Pricing Department
St. Bekim Fehmiu (former Fazita building), 2nd floor, Pristina, 10000, Kosovo

Relevant documents

Final Evaluation of TSO/MO MAR within periodic review process 2023-2027	https://www.ero-ks.org/zrre/sites/default/files/Publikimet/Pjesemarresit%20ne%20Treg/Furnizim/Raport%20p%C3%ABrfundimtar%20p%C3%ABr%20t%C3%AB%20Hytrat%20e%20Lejuara%20Maksimale%20per%20OST_OT_P%C3%ABrgjigjet%20ndaj%20Komenteve.pdf
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KOSTT's application for 2024	https://www.ero-ks.org/zrre/sites/default/files/Publikimet/Pjesemarresit%20ne%20Treg/Furnizim/Aplikacioni%20i%20KOSTT%20p%C3%ABr%20azhurnimet%20vjetore%20t%C3%AB%20t%C3%AB%20hyrave%20t%C3%AB%20lejuara%20maksimale%20p%C3%ABr%20vitin%202024.pdf
Consultation Report on USS Maximum Allowed Revenues	(link)
Consultation Report on DSO Maximum Allowed Revenues	(link)

2 Adjustment of Maximum Allowed Revenues

Based on the Rule on Determination of Maximum Allowed Revenues for TSO/MO, ERO has carefully analysed all cost components and licensee requirements submitted in its application for Maximum Allowed Revenues. During the regular adjustment process, ERO uses the values established during the 2023-2027 Periodic Review process and adjusts the MAR to reflect the differences between the costs that were forecast during the periodic review and the actual reasonable costs of the regulated operators. During this process, ERO will:

1. Index Operating and Maintenance Costs for the Efficiency Factor which is determined during the Periodic Review process and for annual inflation based on the Harmonized Index of Customer Prices (HICP) published for Eurozone countries;
2. Determine Allowed Cost of Losses (ALSCs) for DSO, and update these to include the difference between the allowed and realized costs of losses for the previous regulatory period, which may have taken place due to changes in wholesale energy purchase costs or changes in electricity flows in the distribution system;
3. Update MAR of the TSO/MO in order to reflect the difference between the allowed and realized revenues in previous relevant year (t-1), including also the excluded revenues;
4. Set MAR of the TSO/MO for the relevant year t.



3 Electricity Balance

In this tariff review, ERO has used the approved balance to take into consideration the consumption of regulated and unregulated customers and the energy required for supply of customers in the four municipalities in the northern part of the Republic of Kosovo.

Following the implementation of the Guideline derived from the Brussels Agreement for the energy sector, the licensed supplier Elektrosever started the nominations for the purchase of energy for supplying customers in the four municipalities in the northern part of Kosovo. ERO, in this regular annual review process has taken into consideration the amounts expected to be billed by the supplier Elektrosever and has then allocated the obligations and the revenues of suppliers and other trading parties.

The forecast of electricity balance for 2024 is presented in the following table:

Table 1: Electricity Balance

Energy Balance	Unit	2024
Production	GWh	6,612.50
Kosova A – Production at the entry of transmission	GWh	2,229.20
Kosova B – Production at the entry of transmission	GWh	3,660.90
Ujmani + Lumbardhi Cascade+PE KITKA+PE Selaci	GWh	520.3
Production of HPP, wind and photovoltaic panels in distribution	GWh	202.2
Customer supply demand	GWh	6,029.60
Demand for USS customers	GWh	4,820.0
Total DSO losses	GWh	1,071.0
Total TSO losses	GWh	138.6
Total import	GWh	1,508.50
KESCO import	GWh	140.0
KEDS import	GWh	543.3
Ferronikel import	GWh	423.4
SharrCem import	GWh	68.6
Trepça import	GWh	24.8
Import for transmission losses	GWh	75.9
Import for supply from Elektrosever	GWh	232.5

The electricity losses in the transmission network, planned in the Electricity Balance are 138.6 GWh or 1.75% of the overall amount of energy at the entry of transmission.



4 Regular adjustments

In cases where there are differences between the allowed and realized costs during any relevant year, the Regulator carries out the adjustments of these costs.

This part presents the calculations related to the regular annual adjustments of 2023. The calculation of these adjustments will be included during the determination of Maximum Allowed Revenues for the relevant tariff year 2024.

4.1 Adjustments for inflation rate

In order to calculate the adjustments related to the inflation rate, as a reference has been taken the inflation rate published by Eurostat for Eurozone countries, which for 2023 was 5.41%, ¹. The method and reference value for calculating such adjustments is defined in the Rule on TSO/MO Revenues.

In order to reflect the changes of the inflation rate over the years, the data are illustrated in the following figures:

Figure 1 - HICP

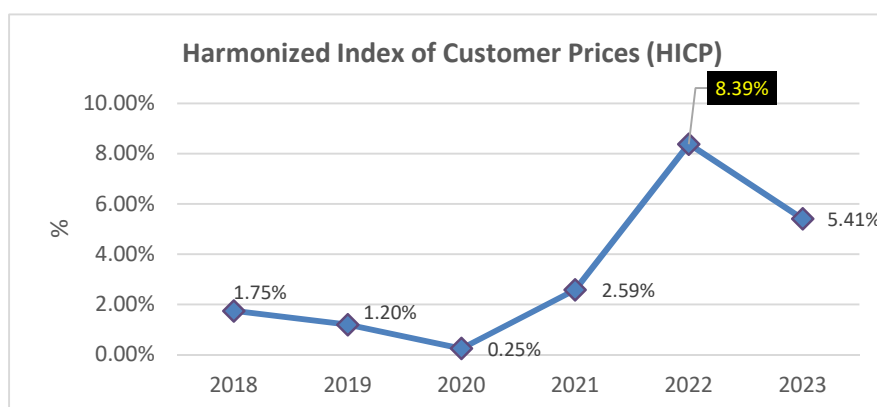
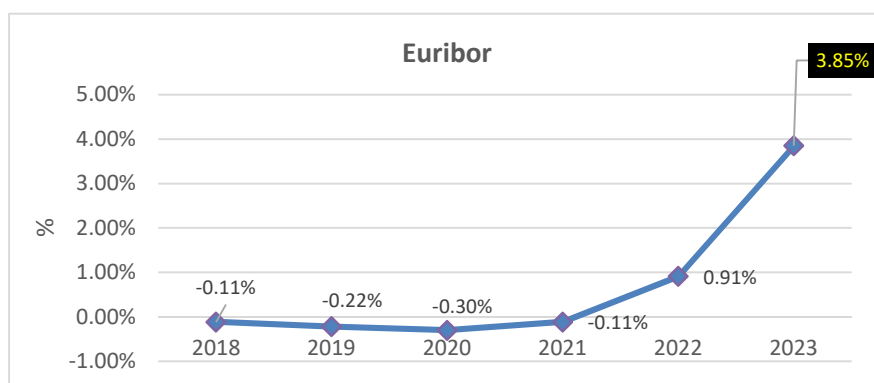


Figure 2 - Euribor



¹ Source: Eurostat,

https://ec.europa.eu/eurostat/databrowser/view/PRC_HICP_AIND_custom_4860030/default/table?lang=en
(visited on 22.01.2024)



This rate is applied to the adjustment of operating costs, depreciation costs and return on capital. Following the application of the inflation rate of 5.41% to the above-mentioned cost components, the value of adjusted costs of 1.66 million euros is derived. The adjustments resulting from the application of the inflation rate for each of the components of the allowed costs in 2023 were then added to the initial evaluation of the forecast costs for 2024. The details of these calculations are presented in the following table:

Table 2: Adjustments for inflation

Line	Unit	a) Allowed 2023	b) Adjustment for inflation	c) Initial Evaluation 2024	d=b+c Lejimi 2024
OPEX	mil €	7.90	0.43	7.78	8.21
Depreciation	mil €	12.94	0.70	13.86	14.56
Return	mil €	9.93	0.54	10.49	11.03
Total	mil €	30.77	1.66	32.13	33.79

4.2 Savings sharing factor

In addition to the above-mentioned adjustments, ERO has carried out the adjustment of maintenance costs by applying the savings sharing factor. These adjustments are applied in order to encourage savings on the part of the company, where the part saved will be divided between the company and customers with a sharing factor of 50%. The resulting value of savings is €0.09 million, where the adjusted value of savings is compensated to customers. This comes as a result of the difference between the allowances of 0.69 million euros and the realization of 0.5 million euros.

4.3 Investment costs

In its application, KOSTT submitted a request for two new projects as well as a change in the funding source of one project.

Additional requested projects are: supply of testing equipment for testing energy transformers, "Kelman Transport X2 and Omicron CPC 100" within the maintenance of 400/220/110kV substations. The **Kelman Transport X2** device is suitable for transformer/auto-transformer oil analysis as it is mobile and can be moved from one substation to another, while the reason for purchasing the Omicron CPC 100 device is that the existing equipment is insufficient in performing the works and at the same time being used as a backup due to the importance of the electrical measurements that must be performed. With the Omicron CPC 100 device, these tests can be performed for power transformers, auto-transformers, switches, disconnectors, energy transformers and voltage transformers. Some of the tests that can be performed are: the resistance of the coils, the transformation coefficient, the C&factor of dielectric losses, the magnetization power, etc.

Another request of KOSTT is the project: "Supply of special equipment for the lines maintenance team". The supply with instruments and special tools for high voltage cables and their use will enable the staff to identify potential problems more quickly and provide more efficient intervention.



Another request of KOSTT is to change the source of financing for the project of re-vitalization of HV 110kV equipment in SS Vallaq, which is approved within the Investment Plan 2023-2027 with a source of financing from donations. KOSTT emphasizes that due to uncertainties and delays related to the pledged donations, it requests a change in the funding source for the project of re-vitalization of the 110kV HV equipment project at SS Vallaq.

The Regulator has reviewed the request of TSO/MO for two projects and evaluates that both new projects are reasonable for approval. The value of these investments is €0.3 million. As for the project for the re-vitalization of HV 110kV equipment at SS Vallaq, ERO at this stage has not dealt with the project in question, because the impact is not relevant to this tariff year, therefore it is waiting for the developments related to the guarantees foreseen for this investment.

4.4 Reference Price 2024

Based on the Methodology for Determination of Reference Price, KOSTT has submitted the relevant information. The basic principles in determination of reference price are as follows:

- The amount of displaced demand is based on the merit order of the demand with the most expensive generating source replaced first and the cheapest source replaced last.
- The hourly reference price is based on the volume of generation from RES and the costs of alternatives displaced at that time for that volume.
- The calculation of the annual reference price is based on the current values of the displaced electricity sources per hour for the whole year and dividing by the expected volume of generation from RES per hour for the whole year.

The reference price of Renewable Energy Sources, which will be applied for the relevant tariff year 2024, results in €72.85/MWh. For generators in the feed-in tariff Support Scheme whose price turns out to be higher (due to inflation updates) the reference price of 72.85 Euro/MWh can be applied, whereas for the generators whose price is lower than the reference price, the corresponding lower price is applied.

4.5 RES Fund

From the analysis of the KOSTT application, it is noticed that there is a difference between the costs and revenues from the RES fund and the costs for ancillary services for 2023. The value of this difference is €5.64 million and they include the difference between revenues and expenses of the RES Fund for 2024.

The details of these calculations are presented in the following table:

Table 3 Fund costs and adjustment

Fund costs	Unit	2023	Proposed 2024
Forecast	€m	20.93	11.81
Actual	€m	26.57	
Difference	€m	5.64	



4.6 Costs of ancillary services for 2023

KOSTT, in its application has presented the costs of ancillary services realized for 2023 in the amount of €17.8 million. These costs are attributed to automatic and manual reserve (aFRR and mFRR) in both directions (increase and decrease). As is known, the main causes for the activation of these reserves are system deviations as a result of the imbalance between demand and supply, with the deviations for the supply of four northern municipalities being among these causes.

ERO requested from KOSTT that based on the available data, it shall separate the costs of use for the four northern municipalities from the regulated customers in the most rational way possible, until the definition of a method. For this purpose, ERO in the preliminary phase will exclude 5% of these costs from the costs for regulated customers, consequently the share of supply for the four northern municipalities compared to the overall consumption.

The value of the forecast cost for ancillary services for 2023 for regulated customers was €8.64 million compared to €16.89 million euros realized. This difference is adjusted for €8.25 million in revenues for 2024.

The details of these calculations are presented in the following table:

Table 4 Costs of ancillary services and adjustment

Costs of ancillary services	Unit	2023	Proposed 2024
Ancillary services			
Forecast	€m	8.64	18.17
Realized	€m	16.9	
Difference	€m	8.25	

4.7 Adjustments of the costs of losses

The value of the adjusted cost of losses is €-4.07 million for 2023, which results due to the changes in realized energy flows towards the forecast ones as well as the difference between the forecast and realized price. The details of the calculations of the costs of losses are provided in the table below.



Table 5: Adjustments of the costs of losses

Maximum Allowed Revenues for TSO/MO	Unit	Allowed 2023	Realized 2023	Proposed 2024
Indexation parameter				
I_t – rate of interest realized in relevant year t ,	%	8.51	5.41	
Allowed losses (LSSC_t)				
Allowed % of losses	%	1.75%	1.75%	1.75%
REUE _t – TSO Energy	GWh	7,308	6,680	7,919
RWMP-Energy Purchase Price (€/MWh)	€/MWh	110	83	69
TSO losses	GWh	103	117	139
Costs of losses	mil €	13.31	9.24	9.55

Adjustment of the cost of TSO losses is conducted through the formula below:

$$(LSSC_{t-1} - LSSC_{ft-1}) * (1 + I_t)$$

Where:

$LSSA_t$	Allowed losses, presented as a share of energy entering the transmission in relevant year t
$REUE_t$	Energy units (MWh) or (GWh) entering the transmission system in relevant year t
$WHEA_t$	Average of wholesale energy cost (€/MWh) in relevant year t
$LSSC_{t-1}$	Cost of allowed realized losses in relevant year $t-1$ (calculated using the allowed losses)
$LSSC_{ft-1}$	Forecast cost of losses in relevant year $t-1$, (calculated using the allowed losses)
I_t	Interest rate for relevant year t , which is calculated based on EURIBOR $S\%$, where S presents the value that will be determined by the Regulator during periodic reviews which reflects the premium payable by the license for short-term loans above the EURIBOR rate

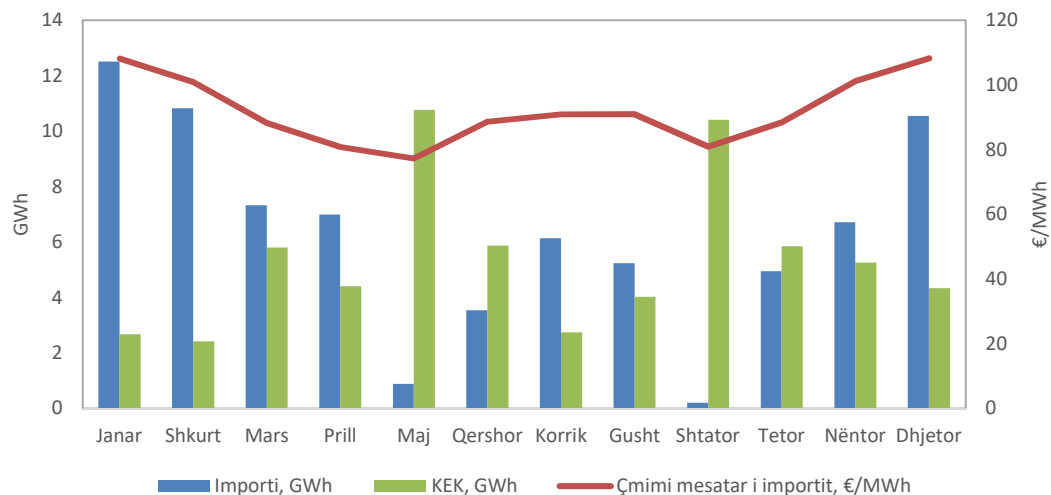
ERO, in the preliminary evaluation has foreseen the energy purchase costs for covering the losses based on a) forecast amounts of electricity purchase from KEK and import, b) profile of losses from the historical data of TSO, c) forecast of electricity prices from KEK (36 €/MWh) and import, based on the data from European Energy Exchange (EEX-PXE Hungarian Power Futures)², and d) the energy

² <https://www.eex.com/en/market-data/power/futures#%7B%22snippetpicker%22%3A%2223%22%7D>



import costs (allocation of capacities, network costs and cross-border transmission tariffs) based on the historical data and network tariffs.

Figure 3. Average electricity import price and forecast amounts of purchases from KEK and import for TSO



Based on these data, ERO forecasts that the weighted average price of electricity purchase will be around 69 €/MWh.

4.8 Corrections for non-tariff revenues 2023

KOSTT, in 2023 was allowed 8.52 mil€ as non-tariff revenues, whereas in the draft financial statements of 2023, KOSTT has realized non-tariff revenues in the amount of 7.17 mil€. The revenues realized from the unregulated activities, such as: the revenues from the allocation of capacities, revenues from ITC mechanism are deducted from the Maximum Allowed Revenues. This difference of 1.35 mil€ in the value of revenues will be adjusted through the correction mechanism in the revenues for 2024.

The following table presents details of unregulated revenues:

Table 6: Corrections of unregulated revenues

Adjustments –Unregulated revenues	Forecast 2023 mil €	Realization 2023 mil €
Revenues from the allocation of capacities and other revenues	-8.31	-8.36
Revenues from ITC mechanism	-0.21	1.19
Total adjustments	-8.52	-7.17
Difference		1.35



4.9 Adjustments for revenues correction factor

In line with the Rule on Maximum Allowed Revenues, the Regulator conducts the correction of revenues from the previous year. The principle which is applied is related to the general evaluation of actual allowed costs and actual realized revenues. These calculations are carried out according to the following formula:

$$KREV_t = (AAC_{at-1} - ARR_{t-1}) * (1 + I_t)$$

Where:

AAC_{at-1} Actual Allowed Cost as determined in Relevant Year t-1

ARR_{t-1} Actual Regulated Revenues in Relevant Year t-1

I_t Interest rate for relevant year t, which is calculated based on the EURIBOR S%, where S presents the value determined by ERO during periodic reviews which reflects the premium payable by the licensee for short-term loans.

The difference between AAC_{at-1} of €49.84 million and ARR_{t-1} of €36.80 million, following the application of the interest rate results in €14.27 million. This difference between the actual revenues and actual allowed costs is then passed through as an adjustment during the determination of MAR for 2024.

The following table presents details of the revenues correction factor:

Table 7: Revenues correction factor

Revenues correction factor - KREV	Unit	Value
AAC_{at-1} Allowed actual costs for relevant year t-1	€m	49.84
ARR_{t-1} Revenues realized in relevant year t-1	€m	36.80
$KREV = (AAC_{at-1} - ARR_{t-1}) * (1 + I_t)$	€m	14.29



5 Proposal for TSO/MO Maximum Allowed Revenues

The Maximum Allowed Revenues for TSO/MO are calculated according to the following formula:

$$MAR_t = OPMC_t + DEPC_t + RTNC_t + ASVC_t + LSSC_t + LICC_t - ITCR_{NTFR\ t} + ADJ_t + KREV_t$$

MAR_t *Maximum Allowed Revenues in relevant year t*

$OPMC_t$ *Allowed operating and maintenance costs in relevant year t*

$DEPC_t$ *Allowed depreciation in relevant year t*

$RTNC_t$ *Allowed return on capital in relevant year t*

$ASVC_t$ *Allowed costs for ancillary services in relevant year t*

$LSSC_t$ *Allowed cost of losses in relevant year t*

$LICC_t$ *Cost of license tax in relevant year t*

$ITCR_t$ *Net revenues of TSO/MO from the inter-TSO compensation mechanism in relevant year t*

ADJ_t *Adjustment of costs*

$KREV_t$ *Revenue correction factor in relevant year t*

The calculation of each of these components is elaborated below.

As a result of the calculations of each of the cost components, the proposed MAR for TSO/MO for 2024 is €73.47 million.



Table 7: Proposal of TSO/MO MAR (KOSTT) following the adjustments

Maximum Allowed Revenues for TSO/MO	Unit	Allowed2023	KOSTT 2024	ERO 2024
Indexation Parameters				
Efficiency factor	%	1.50%	1.5%	1.5%
HICP	%	5.41%		
Euribor	%	3.85%		
S factor	%	5.74%		
Interest rate - It	%	9.59%		
Operating and Maintenance Costs (OPMct)				
Allowed-OPMct = $OPMct-1 * (1 + CPI_{It-1}) * (1 - Et) * (1 - Pt)$	€m	7.90	8.21	8.21
Adjustments of maintenance	€m	0.69		
Actual	€m	0.51		
Sharing of costs 50/50	€m	- 0.09		
Depreciation costs (DEPct) mil €				
Allowed- DEPct = $DEPct-1 * (1 + CPI_{It-1}) * (1 - Pt)$	€m	12.94	14.56	14.56
Return costs (RTNct)				
Allowed - RTNct = $RTNct-1 * (1 + CPI_{It-1}) * (1 - Pt)$	€m	9.93	11.02	11.02
Costs of losses (LSSct)				
Forecast				
LSSAt	%	1.75%	1.75%	1.75%
REUEt	GWh	7,308	6,394.7	7,918.0
RWMP	€/MWh	109.8	125.8	68.92
Forecast cost of losses	€m	13.31	14.08	9.55
Actual costs of losses (LSSct)				
Actual				
LSSAt	%	1.75%		
REUEt	GWh	6,680		
RWMP	€/MWh	83.2		
Actual cost of losses	€m	9.73		
Fund				
Forecast mil €	€m	20.9	13.74	11.81
Actual	€m	26.6		
Fund correction t-1	€m	5.64		
Ancilliary services				
Forecast	€m	8.64	18.17	18.17
Actual	€m	8.89		
Adjustments				
Unregulated revenues				
Forecast mil €	€m	-8.31	-8.31	-8.31
Actual		-8.36		
Revenues from ITC mechanism	€m			
Forecast	€m	-0.21	-0.40	-0.40
Actual		1.19		
Adjustments for (2022 and PR2)	€m	-5.42	-5.42	-5.42
$KREVt = (AACat-1 - ARRt-1) * (1 + It)$			14.29	14.29
Adjustments of the fund 2022		-4.46		
MAR – Maximum Allowed Revenues	€m	55.25	79.93	73.47