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ENERGY REGULATORY OFFICE
REGULATORNI URED ZA ENERGIJU

FINAL EVALUATION

The Seventh Electricity Tariff Review

ETR7 (2013-2017)

Transmission System and Market Operator

22 March 2013



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1 Introduction

In a letter dated 8 June 2012 ERO announced the commencement of Electricity Tariff Review 7 (ETR7) which, for the first time, will enable the setting of licensee maximum allowable revenues over multi year periods. Those maximum allowable revenues must, by law, be adequate to cover the reasonable operating and capital costs of performing the licensed activities. Calculation of maximum allowable revenues does not take account of any adjustments required under the Pricing Rules for differences between actual and allowed revenues in preceding years.

In line with its published Pricing Rules, ERO has carefully assessed the licensee's forecast costs and has satisfied itself that its proposals are reasonable and appropriate. KOSTT was asked to present its submission to ERO and the public on 3rd September. Since that date, ERO has worked closely with the company to clarify initial submissions. KOSTT has submitted substantial additional data and justification.

ERO conducted an initial assessment of KOSTT's costs and summarised its findings in its Provisional Evaluation for the MYT review, issued on 8 January 2013. Further meetings were then held with KOSTT and the company provided further information and explanation to support its position. KOSTT submitted a response to the Provisional Evaluation on 1 February 2013. It said that it supported the general approach taken by ERO but requested reconsideration in some areas as follows:

- Losses
- Staff Costs
- Efficiency factor

ERO concludes that KOSTT accepts the Provisional Evaluation in all other respects, and addresses KOSTT's response in the above specific areas in later sections of this document. However, in order that this Final Evaluation document can be read on a stand-alone basis, ERO has reiterated its position on other aspects such as capex. In reaching its final conclusions, ERO has taken account of further discussions with and clarifications from KOSTT since the 1 February response.

This document forms part of ERO's Final Evaluation and should be read in conjunction with the "Final Evaluation – Overview" published concurrently with this document and its annexes. It is structured as follows:

Section 2 – Final Evaluation of KOSTT's proposed Capital Expenditures

Section 3 – Final Evaluation of KOSTT's proposed Operating Expenditures

Section 4 – Final MARs 2013-2017

Section 5 – Other Regulatory Parameters



2 Final Evaluation of KOSTT's proposed Capital Expenditures

2.1 KOSTT's CAPEX Proposals

On 19th October 2012 ERO issued a consultation document (the "October Consultation") setting out its understanding of KOSTT's submission to date and asking for additional clarification and justification. In particular, ERO asked KOSTT to reconcile the apparent disparity between its latest approved 10 Year Network Development Plan (2011) and the capital projects described in its August submission.

In response to the October Consultation, KOSTT submitted considerable additional information to ERO. KOSTT explained that the current Network Development Plan had been prepared prior to a Government decision to transfer a number of 110kV assets and related materials and operational staff from KEK to KOSTT. This transfer became effective on 1st April 2012. KOSTT stated that the transferred assets require substantial remedial works to bring them up to the condition of the rest of the transmission network, and into line with existing operating standards for the system. KOSTT's MYT submission therefore represented a substantial re-working of the earlier business plan to reprioritise capital expenditure over the five-year period of the coming control, a re-working that will be reflected in their next proposed Development Plan. Project details are shown in Table a below.



Table a

KOSTT's proposed capital projects for Transmission	2013	2014	2015	2016	2017	Total
	€ m	€ m	€ m	€ m	€ m	€ m
Capital Expenditure Projects included in the approved NDP						
Kosovo-Albania Interconnector						
Load-related capital expenditure	12.2	-	-	-	-	12.2
Non load-related capital expenditure	7.7	2	-	-	-	9.7
Total approved capital projects	24.9	11	8.5	8	-	52.4
Capital Expenditure Projects not included in the approved NDP						
Kosovo-Albania Interconnector						
Load-related capital expenditure	1.1	14.4	18.7	7.1	12.6	53.9
Non load-related capital expenditure	0.4	0.2	0.2	0.2	0.2	1.1
Total Capital Expenditure Projects not included in the approved NDP	2.5	15.5	18.9	7.3	12.8	56.9
Total Capital Expenditure	27.5	26.4	27.3	15.2	12.8	109.3

2.2 KOSTT's Unit Costs

SKM noted that KOSTT's claimed unit costs are generally lower than seen in similar markets and in the case of switchgear are 20-25% lower than might be expected. KOSTT have however demonstrated to ERO's satisfaction that the company's stated values represent purchase costs obtainable in the market. ERO has therefore accepted the KOSTT unit costs in the costing for the proposed capex programme and acknowledges that there is only a low risk in these being under-estimates.

KOSTT have provided the phasing of the expenditure over the 2013-2017 period. Project expenditure is only added to the regulatory assets base when the project is commissioned. KOSTT stated that some of the projects should have elements that are commissioned in stages but they could not provide details at this stage therefore all the projects are assumed to be commissioned at the end of their expenditure period.



2.3 ERO's Final Evaluation of KOSTT's Capex Proposals

KOSTT's revised submission has linked each of the projects described above to specific system benefits, and have provided material explaining their planning process. On 8th November KOSTT presented the detail of their capital expenditure forecasts, particularly for the 2013 to 2017 period. This indicated four main classes of expenditure and provided justification for the planned projects and their prioritisation in terms of benefits to the system and customers in terms of increased reliability, availability and security. The projects have been examined by ERO and its engineering consultants. ERO's Final Evaluation in this section 2 remains unchanged from ERO's Provisional Evaluation dated 8 January 2013.

SKM consider that KOSTT's planning process should lead to a reasonable and efficient capital expenditure programme. It is clear that KOSTT consider operational alternatives to capital expenditure solutions and where KOSTT feel they can improve the network through operational procedures they have also provided details in the NDP and deferred the associated capital expenditure to a later date. Nevertheless, KOSTT's asset management practices could be improved, and this aspect is addressed in Section 3 (Opex) below.

KOSTT have identified a number of capital projects, the vast majority in the transmission operations business with a small number of projects for system operations, primarily related to extending the SCADA-EMS to control the 110kV assets transferred from KEK's DSO business. The market operations business has no capital requirements for the coming control period.

Although KOSTT's capex programme is significantly higher than that in the most recent approved NDP this is primarily driven by additional costs related to refurbishment and enhancement of 110kV assets recently transferred to KOSTT from KEK, 40% of which is some 30-40 years old with widespread earthing problems.

KOSTT's revised submission requires some €120 million of capital expenditure over a five year period. In its technical evaluation, SKM have stated that KOSTT has built its capital programme on a sound engineering basis, but that a review of its asset age profile indicates that the company is proposing a constrained asset replacement programme.

ERO notes that SKM have some reservations that the non-project expenditure under "other infrastructure" is based on a set of budget costs rather than quotation-based estimates, and that they have recommended that this line item is reduced by 10%. This has only a minor effect on the recommended capex.

In the light of this assessment, and noting that KOSTT's unit costs are reasonable with the exception just noted, ERO proposes to allow KOSTT's proposed capital programme in full. The sums which will be funded through the MAR are shown in the table below.

Table b

KOSTT's proposed capital expenditure requirement (including grants)	2013 € 000's	2014 € 000's	2015 € 000's	2016 € 000's	2017 € 000's	Total € 000's
KOSTT Transmission Operator Project Capex	27,594	27,490	26,368	15,313	12,846	109,611
KOSTT Transmission Operator non-Project Capex	2,316	669	103	138	216	3,442
KOSTT System Operator	3,744	3,024	431	-	-	7,199
Total	33,654	31,183	26,902	15,451	13,062	120,252

The profile of proposed capital expenditure through the MYT period suggests that capital expenditure levels will fall in later years, although in practice slippages may result in a smoothing of the profile of spending from that shown above.

In terms of deliverability, that part of the capital expenditure programme to be engineered by KOSTT is of the same order (about €100M) as KOSTT has achieved in the last six years. The overall programme includes significant expenditure (about €15.5M) on 110kV assets that will be engineered and funded by KEK. Most of the remaining grant-funded projects will be engineered by others. It therefore appears feasible for KOSTT to deliver its intended capex programme.

3 ERO's Final Evaluation of KOSTT's proposed Operating Expenditures

3.1 KOSTT's Opex Proposals

In its submissions, KOSTT put forward its proposed central or headquarters operating costs separately, which ERO will allocate across the licensed businesses in the proportion: Transmission Operator – 80%; System Operator – 17%; Market Operator – 3%.

Some of the costs put forward are non-controllable, such as taxes. Others are controllable. ERO has reviewed KOSTT's controllable cost forecasts with the support of consulting engineers. In the case of the following costs, ERO does not find KOSTT's forecast cost levels fully justified.

3.1.1 Staffing Levels

ERO has reviewed KOSTT's proposed staffing levels for headquarters and for the transmission operation, system operation and market operation activities. ERO's engineering consultants have also assessed KOSTT's staffing levels by comparison with other international TMSO businesses as described in section 5.2 of the report in Annex A. The staff benchmarking shows that KOSTT do not have significantly higher staffing than would be expected. However, it is clear from the data provided that the company has all their substations manned 24/hr on a shift rota. This situation should become unnecessary with the completion and extension of the SCADA systems.



The company has not demonstrated the ability to provide clear information on the overall condition of its assets nor to undertake investment analysis that looks at replacement need based on asset age and condition, information which would be expected from an electricity utility following good international practice. From this, SKM have suggested that staff resources should be re-focused in future to increase attention in asset management rather than shift substation manning. Clearly these will be different skill sets and staff may need to be retrained in these, or new skilled staff recruited. SKM have noted that 20 transmission operations staff are due to retire over the period 2013-2017. They have suggested that retaining the allowance for these staff will allow KOSTT to recruit additional, but more highly qualified staff to carry out these more skilled tasks. ERO therefore has not reduced the allowance to take account of retirees.

For **headquarters** (HQ) staff, KOSTT is forecasting an increase of 6 staff to manage the increased capital programme to supplement the 40 HQ staff currently engaged in these activities, which represents a 15% increase. The capital programme 2008-2012 was €83.473m and the forecast for the 5 years 2013-2017 is €109.61m this is a 31% increase in the capital programme. ERO concurs that this staffing increase is justified.

For **transmission operations**, KOSTT have further proposed an increase in staff of 14 over the period to 2017 in recognition of the growing network. Although introduction of SCADA-EMS across all the transmission substations should allow remote operations of the 110/35kV substations KOSTT is not presently planning to reduce the 24 hour manning regime. The company accepts this is possible (indeed this is a major justification for this technology), but are planning to introduce it gradually in the future. The company says that demanning has social and financial implications in terms of severance that make it difficult to make staff redundant even when technological advances have rendered them so. In its 1st February response to the ERO Provisional Evaluation, KOSTT reiterated its view that significant reductions will probably not be achievable until post 2017.

In the light of this, the company's proposal to recruit 14 additional staff today who may not be required in a few years' time seems questionable. ERO can only include the costs of obligations relating to maintenance of staff levels where there is an explicit duty on the company to retain staff who would otherwise be redundant. As a result, ERO remains of the view that it is appropriate to assume that transmission operations staff levels remain at the 2012 level throughout the forecast period. It will be for KOSTT to consider how best to utilise its existing staff. ERO notes that KOSTT has requested an additional allowance for security guards, and expects them to be used to manage security risks at de-manned substations.

For **system operations** KOSTT is proposing an addition of 6 staff over the period to operate the expanded SCADA controlled network. ERO considers these increases reasonable given that savings are made in the staffing in transmission operations.

For **market operations**, KOSTT is proposing no increase in staff from 2012 levels for the future control period and ERO concurs that this is reasonable.

Staffing levels are reviewed by ERO as they impact staff costs and it is the staff costs that ERO are primarily concerned with. The absolute level of staffing is not being set by ERO and it is up to KOSTT to determine the appropriate structure within the opex allowance. ERO's allowance for staff levels is summarised in the table below.

Table c

KOSTT's proposed staffing levels compared with ERO's allowed staffing levels	2012	2013	2014	2015	2016	2017
KOSTT HQ	77	83	83	83	83	83
ERO HQ	77	83	83	83	83	83
KOSTT Transmission Operations	239	242	247	253	253	253
ERO Transmission Operations	239	239	239	239	239	239
KOSTT System Operations	43	44	47	49	49	49
ERO System Operations	43	44	47	49	49	49
KOSTT Market Operations	10	10	10	10	10	10
ERO Market Operations	10	10	10	10	10	10
KOSTT total staff	369	379	387	395	395	395
ERO total staff	369	376	379	381	381	381

ERO is of the view that these staffing levels may well be capable of further reduction. In setting the Efficiency Factor for KOSTT it intends to incentivise the company to seek improvements in productivity.

3.1.2 Salary and related costs

ERO's reporting formats required companies to make all forecasts in real terms, that is in 2012 prices as inflation will be applied in future to the allowed revenues at annual adjustments. In making its forecasts of salary levels, KOSTT stated that the influx of lower paid 110kV operational and maintenance staff from KEK had depressed average salaries. Their forecast therefore applied a 2.5% uplift over and above inflation to bring average salaries back to 2011 levels. ERO does not accept this rationale: the influx of operational staff has changed the proportion of KOSTT staff with higher qualifications reduced from 53% in 2011 to 40% from 2013 onward. The change has turned KOSTT from an organisation with predominantly professional staff to one with predominantly operational staff.

KOSTT confirmed that the 2.5% increase may not in fact happen but argued that the company intended to review its organisational structure to bring the company more into line with international models for TSMO businesses. ERO considers that this is a matter for KOSTT's management but presumes that such changes would be made in the interests of improving efficiency, rather than lowering it. In the calculation of the allowed salary ERO has used the 2012 average salary of the specific licence activity to develop the allowance based on the staff level above.

In their 1st February submission, KOSTT again argued that its average salaries had been depressed by the transfer of 110kV staff from KEK, and needed to be brought back to previous levels. They made a similar argument in terms of the overall profile of skills, which they say have been worsened by lower trained staff transferring from KEK. KOSTT further claim that “implementation costs” of the change in staff numbers and skill profiles as automation measures are implemented will cost €2 million but does not provide any detail of how this figure is arrived at, nor what benefits will be expected to accrue. ERO therefore remains of the view that there is no justification to increase salaries in real terms over the period of the new control, and the figures in *Table d* below are therefore unchanged from ERO’s Provisional Evaluation.

Table d

KOSTT’s proposed salary levels*	2012	2013	2014	2015	2016	2017
	€ 000’s	€ 000’s	€ 000’s	€ 000’s	€ 000’s	€ 000’s
*(including pension contributions and contract employee wages)						
KOSTT’s forecast salaries	3,800	4,021	4,213	4,403	4,506	4,615
ERO proposed allowable salaries	3,800	3,901	3,941	3,968	3,968	3,968
Difference (euros 000’s)	0	-120	-272	-435	-538	-647
% Difference	-	-3%	-6%	-10%	-12%	-14%

3.1.3 Repairs and Maintenance

KOSTT has provided a detailed Maintenance plan and budget and this has been carefully reviewed by ERO and its consultants. The main area of increase is to overhaul the 110kV assets that have been transferred from KEK. KEK also transferred system spares with the assets and KOSTT have confirmed that the cost of these transferred spares is not included in the maintenance submission. ERO would expect the combined impact of the maintenance programme and the planned capex programme to be sufficient to allow KOSTT to manage aging assets and achieve a measure of asset life enhancement beyond KOSTT’s existing asset life assumptions.

3.1.4 Other operating expenses

ERO’s Provisional Proposals concluded that while some costs claimed by KOSTT as “Other Operating Expenses” were justified, others were unreasonable and were excluded from ERO’s provisional assessment of KOSTT’s operating costs. These included the following elements of operating costs:

Cost Element	ERO Provisional Evaluation
Official Trips Expenses	No increase from 2012 levels
Secondary Regulation	Allowed subject to contractual evidence

	being provided
Trade Receivables	Disallowed

In its 1 February response KOSTT did not challenge ERO's position on these items but said that insurance and secondary regulation costs should be excluded from the Efficiency Factor calculations. ERO does not consider that this is justified or appropriate, and its final conclusion on these cost elements remains unchanged from its Provisional Proposals.

3.1.5 ERO's Final Evaluation of KOSTT's Opex Proposals

ERO's Final Evaluation of KOSTT's Opex (excluding losses and depreciation) is summarised in the following table. It represents a reduction over KOSTT's proposal of some €23 million over the five year control period, a reduction of some 37%. This is unchanged from ERO's Provisional Evaluation.

Table e

ERO provisional evaluation of KOSTT's opex	2013 € 000's	2014 € 000's	2015 € 000's	2016 € 000's	2017 € 000's	Total € 000's
KOSTT's proposed opex	13,627	11,518	11,685	12,293	12,485	61,599
ERO's proposed opex	7,222	7,039	6,854	6,642	6,453	34,210
Difference (€ 000's)	-6,404	-4,478	-4,831	-5,641	-6,032	-27,388
Difference %	-47.00%	-33.38%	-41.35%	-45.93%	-48.31%	-44.46%

The items that contributed most significantly in ERO's proposal is the removal of the provision for ancillary services expenditure and trade receivables.

4 Other Regulatory Parameters

4.1 Loss Allowance and Sharing Factor

In its Provisional Evaluation ERO stated that it expected the additional investments in the network will contribute to a further reduction in losses however it expects the marginal reduction in losses to gradually diminish and proposed to set the allowed level of losses for KOSTT at 1.8% along with a loss-sharing factor of 50%.

In their 1st February submission in response to the Provisional Evaluation consultation paper, KOSTT argued that this allowance, which equates to a reduction to 109.9 GWh is not achievable. They supported this argument by reference to the transferred 110kV assets and the growth in demand, and noted that these effects would outweigh the beneficial effect on losses of planned investments.

4.2 Efficiency Factor

ERO is required by the Pricing Rule to set an efficiency factor that will apply to KOSTT's operating and maintenance costs. A single factor will be set for the whole MYT period at a level that reflects the gains that might be expected during the period by an efficient licensee. In setting the level of the efficiency factor, ERO has considered the costs and quality of service provided by KOSTT, and taken account of productivity levels in international comparator companies. It has also considered the levels of efficiency factor that have been successfully applied in regulatory regimes elsewhere.

ERO concluded in its Provisional Evaluation that there is scope for significant efficiency gains in KOSTT's activities, particularly as this will be the first time that an efficiency factor has been applied to the company and experience shows that companies are able to demonstrate higher efficiency gains at this early stage of incentive regulation. ERO considered that a value of 4% per annum would be an appropriate efficiency factor in the MYT period, representing both a challenging incentive for KOSTT to reduce its costs and achieve gains if it out-performs this level of improvement, while at the same time giving benefits to customers through downward pressure on tariffs. In its 1 February 2013 response KOSTT said that a value of 4% was excessive and that an Efficiency Factor of 1% would be more appropriate. It further claimed that significant redundancies would result from a 4% factor, and that it would be inappropriate to impose the Efficiency Factor in the first year of the MYT period.

4.3 WACC

ERO has set the Weighted Average Cost of Capital for KOSTT based on previous evaluations of required Return on Equity, actual cost of debt financing and actual gearing level (subject to gearing restrictions given in ERO's ETR6 WACC Discussion).

ERO initially assumed a commercial return on equity for all regulated companies in the sector. ERO further sought guidance from the government as to the level of return on equity that the government might require as the sole owner of publicly owned companies. The government has indicated that they will consider a lower return from operators in the public ownership compared to a return that might be expected by a private owner. ERO has therefore used this return on equity in evaluating KOSTT's WACC.

The resulting WACC for KOSTT is set at 5.07% (real, pre-tax).

5 Final MARs 2013-2017

Following its assessment of KOSTT's capital and operating cost proposals, the final evaluations described above, and its proposed regulatory parameters, ERO has calculated the MARs for KOSTT's licensed activities in line with the TSO Pricing Rule. These are set out in the following table.



Table g

Final Evaluation of MAR for KOSTT	2013	2014	2015	2016	2017	Total
	€ m	€ m	€ m	€ m	€ m	€ m
Total	17.49	18.19	19.17	20.29	21.51	96.66