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

FINAL EVALUATION

The Seventh Electricity Tariff Review

ETR7 (2013-2016)

KEK Generation Detail

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.

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. KEK 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. KEK has since submitted substantial additional data and justification.

It is also important to note that, although ERO does not regulate KEK's Mining Division, it must set a value on the cost of coal, which forms part of the cost of electricity generation. In the future, it may be that the price of coal will be set by a lignite supply agreement, but at present no such agreement is in force. In order to review the existing price of coal charged between the mining and generation divisions of KEK, ERO has asked consulting engineers EIHP to examine the cost of coal production by the mining division, as well as the cost of generation. ERO has taken their report into account in its Final Evaluation.

This document forms part of that 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 Assumed Lignite Supply Costs

Section 3 – Final Evaluation of KEK Regulated Generation

Section 4 – Other Regulatory Parameters

Section 5 – Final MARs 2013-2016

Annex – Addendum to the Technical Assessment Report from

2 Final Evaluation of Assumed Lignite Supply Costs

ERO's Generation Pricing Rule states that in the absence of a lignite supply agreement, ERO must set an assumed lignite supply cost to recover the costs of lignite supply to the regulated generators, Kosovo A and Kosovo B. The Rule further states that the assumed lignite supply costs "shall be calculated in the same way as the other reasonable costs of the Regulated Generator, comprising assumed depreciation, assumed return on capital, and assumed reasonable operating and maintenance costs." In this section, ERO comments on its assessment of the stated operating and capital costs of KEK's mining business.

2.1 KEK Mining Division's CAPEX Proposals

On 19th October 2012 ERO issued a consultation document (the "October Consultation") setting out its understanding of KEK's submission to date and asking for additional clarification and justification. In particular, ERO asked KEK to explain the capital projects described in its August submission. In response to ERO's Provisional Evaluation of 8th January, KEK Generation Division submitted additional material, which was explored and clarified in meetings with the licensee in early February. The capital projects planned in the period are described in the technical assessment report prepared by Energy institute Hrvoje Požar (EIHP) together with the consultant's evaluation of KEK's justification for the projects.

In addition to planned projects for the forthcoming control period, 2013-2016, KEK's original submission contained a number of projects for 2012. KEK has now provided final expenditures for 2012, which amount to some [6 million lower] than originally requested. ERO is satisfied that these projects were necessary and approves recovery of the actual costs, as itemised in *table a* below:

Table a – Mining Division Capital Projects Underway 2012 – actual 2012 outturn values

KEK's proposed capital projects for Mining Division	2012 €000s
Carry over of 2011 contracts from loans	
Auxiliary equipment*	
Expropriation costs – Hade Village*	
Total 2012 capital projects carried over	22,049

ERO remains of the view that these expenditures should have been properly planned and their need and cost justified in ETR6.

Table b overleaf shows capital projects planned by KEK's Mining Division for the period of the new control, 2013-2016:

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Table b – Mining Division Proposed Capital Projects 2013-2016

Projects Proposed by KEK for 2013-2016	2013 €000s	2014 €000s	2015 €000s	2016 €000s	Total €000s
Expropriation costs – Hade Village*					
Returning Stations					
Renovation of combined machines A&B					
Heavy machines					
Repair of two excavators / 2 compact excavators					
Wardrobe Building					
Double conveyor belts					
Remote system					
Total Capital Expenditure Requested (all years)	**17,827**	**63,500**	**62,000**	**19,000**	**162,327**

2.2 ERO's Final Evaluation of KEK Mining Divisions's Capex Proposals

Table 7 of the EIHP report in Annex 1 shows the capital projects proposed by KEK's Mining Division. EIHP has examined the proposed capital expenditure levels and recommended some reduction in cost to be allowed by ERO

2.2.1 Auxiliary Equipment

KEK has procured a number of capital items under this heading to modernise its stock of auxiliary equipment, including bulldozers, trucks, dumpers, excavators, loaders, fork-lifters, mini-buses and Land Rovers. This investment of €3 million has already been made and the corresponding equipment has been put in service.

2.2.2 Expropriation Costs – Hade Village

Relocation of the inhabitants of Hade Village is required to allow the necessary expansion of the mine. Resettlement costs have been estimated at €8 million, a cost which is effectively out of KEK's control, and is based on a document produced by Ministry of Environment and Spatial Planning. KEK have now provided final actual costs for this project at €6 million, wereas about €2 milion will be realised next year. ERO will therefore take this lower figure into account in its final calculations.

2.2.3 Returning Stations

These are turning stations that need to be assembled in the coal conveyor belt of south-west Sibovc and ERO is satisfied that the investment is required and that this is reasonable and will allow this investment.

2.2.4 Renovation of Combined Machines A&B TC – B

KEK have stated that it is necessary to repair these machines to ensure supply coal to Kosovo B station. Insufficient detail was been put forward by KEK to justify this cost, but following ERO's provisional Evaluation, KEK have provided substantial justification and ERO is now satisfied that the expenditure is necessary for security of supply reasons. Although, originally the requested sum by KEK was €2 million more than allowed by ERO, therefore ERO has included an allowance the value offered by companies in the last tender.

2.2.5 Heavy Machines

KEK proposes to replace outdated heavy machines and equipment. Again, insufficient detail has been put forward by KEK to justify this cost but following ERO's provisional Evaluation, KEK have provided addition information for the investnent. KEK provided a list of heavy machines it inteds to procure together with unit costs which were based on previous contracts. Based on this information, ERO approves the investment in the amount of €8.5 million lower as initially requsted by KEK.

2.2.6 Repair of two excavators

KEK believes that two new compact excavators and self propelling conveyor belts are required for the Sibovc mine to ensure a continuous supply of coal to Kosovo A and B stations. However, KEK has advised ERO and its consultants that actual bids received by KEK are some €15 million below the estimated sum originally requested by the Company. ERO therefore proposes to allow this capital purchase in line with the received bids. KEK have maintained its view that the requested figure remains more realistic. However, KEK's outturn values have a consistent pattern of coming in below expectations and ERO does not therefore propose to move from its Provisional Evaluation. If the actual cost exceeds ERO's allowed value then, in line with the Pricing Rule, ERO will adjust the value at the next periodic review, subject to KEK providing documentary evidence of the contract prices.

2.2.7 Double conveyor belts for SWS

KEK believes that two new double conveyor belts are required for the Sibovc mine to ensure a continuous supply of coal to Kosovo A and B stations. Insufficient detail has been put forward by KEK to justify this cost but following ERO's provisional Evaluation, KEK have provided substantial justification and ERO is now satisfied that the expenditure is necessary for security of supply reasons. ERO's discussions with KEK Mining Division have revealed however that, although required, there is still considerable uncertainty about the future cost, and it's financing (donor or company financing). As a consequence is also a degree of uncertainty about the implementation dates. ERO therefore approves this project in principle and will include an immediate allowance of 50% towards this project in the MYT from 2014. Given the uncertainty about timing, ERO has used the same profile of expenditure as that suggested by KEK.

2.2.8 Other capital costs

KEK has planned three other capital projects for the new control period: a new wardrobe building and a remote control system. ERO considers that these two items have been adequately justified and that the costs are reasonable and proposed to allow these items in full.

2.2.9 ERO's Final Evaluation of KEK Mining Divisions Capex Proposals

ERO's Final Evaluation of the mining capital costs which will form part of the assumed cost of lignite supply, to be funded through the generation MAR, are shown in *table c* below.

Table c – Mining Division Capital Expenditures

ERO Final Evaluation of KEK Mining Division capital expenditure requirement (excluding grants)	2012 € 000's	2013 € 000's	2014 € 000's	2015 € 000's	2016 € 000's	Total € 000's
KEK Proposed capex (Revised)	22,094	17,827	63,500	62,000	19,000	184,421
ERO Final Evaluation	22,094	14,509	39,955	41,455	9,955	127,966
Difference (€ 000's)	0	-3,318	-23,545	-20,545	-9,045	-56,455
Difference (%)	0%	-19%	-37%	-33%	-48%	-31%

It should be noted that in forming this Evaluation, ERO is concerned to ensure that KEK has sufficient funding to carry out essential capital investments in the mine, as without these, there is a threat to continuous operations of Kosovo's two coal stations. Any interruption in supply to the mine will have a damaging effect on customer supplies. ERO is satisfied that the projects proposed are essential to protect security of supply. There is, however, substantial uncertainty about certain costs, and about the source of their financing. In the face of this uncertainty, ERO is giving its consent to the projects, but is providing a partial allowance only in two instances. KEK is requested to proceed with its planning and preparations and, once it has a definitive project proposal including financing arrangements, it is asked to submit details to ERO. ERO will then make the necessary adjustments to the MAR.

2.3 KEK Mining Division's Opex Proposals

In its submissions, KEK put forward its proposed central or headquarters operating costs, which ERO will allocate across the licensed businesses.

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

2.4 ERO's Final Evaluation of KEK Mining Divisions's Opex Proposals

2.4.1 Reallocation of HQ costs

In its submission KEK presented its operating costs under a number of headings: salary costs, electricity and other utilities, maintenance, materials and supplies, provisions for environmental issues, other operating expenses and internal expenses. It allocated these costs not only to the licensed activities but also to KEK corporate Headquarters. In regulatory terms, however, all these costs must be allocated to licensed activities in order that they can be recovered through an appropriate MAR. ERO has therefore adjusted the submitted costs. In making the adjustment, ERO has used KEK's apportionment of costs in 2012, and applied these forewards. The evaluation below is on the adjusted costs.

2.4.2 Staffing Levels

KEK has stated that its staffing levels in the mine will reduce from 3,177 in 2012 to 2,891 by the end of 2017. This is largely driven by retirements.

ERO is of the view that these staffing levels may well be capable of further reduction and that the business should be capable of improving its productivity. In setting the Efficiency Factor for KEK Generation it intends to incentivise the company to seek improvements in productivity.

2.4.3 Salary and related costs

KEK has proposed a 5% annual increase in real-terms salaries across the company over and above inflation. ERO sees no justification for such real-terms increases, particularly at the low productivity levels evidenced by KEK. It is for KEK's management to set salary levels, but it will need to find savings elsewhere in the business, without affecting performance. ERO therefore proposes that salary costs for KEK's mining division should remain at 2012 levels in setting the assumed cost of lignite.

2.4.4 Repairs and Maintenance

The historic repairs and maintenance costs of KEK have shown no regular pattern, and the forecast levels of maintenance and repair are equally variable. KEK have not provided any clear justification for the forecast amounts. In the light of this uncertainty, ERO has proposed to set the forecast maintenance allowance at the level of average costs of €1033 / 000t of coal.

2.4.5 Electricity and other Utilities

In respect to electricity and other utilities costs, KEK has reported costs in two categories: fuel, and gas and water costs. These costs are ancillary to the mining activity, and annual sums incurred can be expected to vary with the quantity of coal excavated. However, the unit cost of these services expressed per 000t of coal is expected to remain constant over the years.

KEK's submission in respect of fuel showed rising costs which the Company explained as resulting from the rising unit cost of fuel, forecasting a step increase of 12% from €321/000t of coal in 2012 to €363/000t of coal in 2013, and then increasing with varying magnitudes in unit costs through to 2016. No clear argument was supplied by KEK to support this step increase in unit fuel costs in 2013, nor to support the future variable pattern in fuel price movements. ERO has therefore retained the 2012 value of €321/000t of coal for the control period, recognizing that, as with other costs these will be adjusted throughout the control period to take account of actual inflation. This reduces KEK's forecast fuel costs by €2.4 million for the 2013-2016 period.

KEK's proposed gas and water unit costs are forecast to be a flat €24.10/000t of coal in 2013-16 over the forthcoming regulatory period which is slightly higher than historic unit costs reported, although historic values reported have shown unexpected variations. ERO would expect that the unit costs would remain fairly stable, while the cost would vary with the quantity of coal produced. ERO has assumed a value of €24/000t of coal which is an average value for 2008-2011 period. The result is a minor downward adjustment of approved gas and water costs of €3000 for the 2013-2016 regulatory period.

2.4.6 Other operating expenses

Under "other operating expenses" KEK has total forecast costs of €139,775 million in the period 2013-2016. Of this sum, €103,152 or 74% represents the non-controllable lignite royalty which must be paid by KEK to Government. The remaining 26% comprises transport of personnel to and within the mine, security, reallocation of headquarters' costs, licences and "other". The "other" category was revealed to represent the cost of lubricants, diesel, gasoline and chemicals and gases, which form a considerable cost at €10,424,000 over the period 2013 to 2016.

2.4.7 Transport

KEK have forecast a steadily increasing cost of transport services, which represents the cost of moving personnel around within the mine, as well as conveying them to and from the mine itself. KEK's forecast shows a real increase in transport services of some 22% over the period between 2013 and 2016 at a time when staff numbers are reducing. KEK have not provided any justification for this increase, and ERO concludes that it would be more appropriate to assume a zero increase from the €115,000 value put forward for 2013.

2.4.8 Security Costs

KEK have forecast annual security costs in the same amountt as the previous year at. Given the physical extent of the mines, ERO does not consider this sum unreasonable and proposes to allow it in full as part of the assumed lignite supply cost.

2.4.9 ERO's Final Evaluation of KEK Mining Division's Opex Proposals

The table below summarises the total Mining operating expenditures proposed by KEK for the period 2013 to 2016, together with ERO's proposed evaluation of those same expenditures for the purposes of calculating the assumed lignite supply costs for regulated generation. It should be noted that the table below includes efficiency; wereas excludes depreciation and the Lignite Royalty which is a major and non-controllable operating cost to give a truer picture of Mining opex.

Table d – Mining Division Operating Expenditures

ERO Final Evaluation of KEK Mining Division operating expenditure	2013 € 000's	2014 € 000's	2015 € 000's	2016 € 000's	Total 2013-2016 € 000's
KEK Proposed opex	46,115	47,540	48,653	49,237	191,545
ERO Final Evaluation	40,533	38,691	36,633	34,764	150,621
Difference (€ 000's)	-3,821	-5,476	-7,120	-8,124	-24,541
Difference (%)	-8%	-12%	-15%	-17%	-13%

2.4.10 Assumed Return on Capital

ERO must, in calculating the assumed lignite supply costs to be allowed as part of the Generation MAR, make an assumption about an appropriate return on capital for the mining activity.

ERO has set the Weighted Average Cost of Capital for Mining 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 previous discussions on WACC).

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's final evaluation therefore is that a level of 8.0% post-tax return on equity is appropriate for publicly owned companies. ERO has therefore used this return on equity in evaluating the Mining division's WACC. This is not changed from ERO's provisional evaluation.

The resulting WACC for Mining is set at 4.66% (real, pre-tax).

3 Final Evaluation of KEK Regulated Generation

3.1 Kosovo A - Proposed Capex

The capital projects planned for Kosovo A in the period are described in Annex A, together with a technical assessment of KEK's justification for the projects.

In addition to planned projects for the forthcoming control period, 2013-2016, KEK's submission contained a number of projects for 2012. KEK has now provided information to justify these as necessary projects, although ERO notes that these costs should have been justified as part of the ETR6 process. ERO will need further information from KEK to be satisfied that there is no double-counting between ETR6 allowance and these proposals for the 2013-2016 MAR. For the present, ERO has included these in the new MAR calculation. These 2012 projects for Kosovo A are itemised in *table e* below.

Table e – Realised Kosovo A Capital Projects

KEK's proposed capital projects for Generation Kosovo A (Revised February 2013)	2012 €000s
Capital overhaul Unit A3	
Hydraulic Ash Transporter	
Electrostatic Precipitator Unit A5	
Electrostatic Precipitator Unit A3	
Transformer Unit A3	
Total 2012 capital projects carried over	**36,480**

In addition, *Table f* below shows capital projects for Kosovo A planned by KEK's Generation Division for the period of the new control, 2013-2016:

Table f – Kosovo A Proposed Capital Projects 2013-2016

Projects for 2013-2016	2013 €000s	2014 €000s	2015 €000s	2016 €000s	Total €000s
Enviromental montitoring equipment for unit A					
Air compressors - TCA					
TCA-2620 Running meters & high rise fencing gates					
Surveillance cameras					
New fire engine					
Capital Refurbishment Unit A4					
New Electrostatic filters Unit A4					
Air compressors - TCA					
Boiler Supply Pump Unit A3					
Boiler Supply Pump Unit A4					
Installation of water coolers Units A3, A4, A5					
Capital overhaul of unit A5					
Annual refurbishment Units A3 and A4					
Annual refurbishment Units A3, A4, A5					
Annual refurbishment Units A3, A4, A5					
Total Capital Expenditure Projects 2013-2016	**26,797**	**19,530**	**12,750**	**10,000**	**66,040**

3.1.1 Capital Overhaul Unit A3

The capital overhaul of Unit A3 planned for 2012 was initially costed using a very low estimate. KEK has now contracted various companies to tender for the necessary works. Actual prices being received by KEK are above the original estimates.

According to information received from KEK, the capital overhaul is going to be completed by the end of year 2012. The works encompass repairs on the steam turbine, electro-generator and the boiler.

3.1.2 Hydraulic Ash Transport Kosovo A

The new Hydraulic Ash Transport System for Kosovo A is necessary in order to stop the practice of transporting ash on an open conveyor to an ash pile that is not covered. It will significantly contribute to alleviation of the dust emission problems in nearby communities. The new system will allow ash to be mixed with water and transported by pipe to a depleted section of the mine.

The same project has been completed for Kosova B. The expected investment cost is found to be reasonable.

3.1.3 TCA - 2620 Running meters (Inclusive of 4 High-rise fencing gates)

KEK has proposed to erect fencing is necessary to divide and protect real estate property of Power plant Kosovo A from the neighboring Coal divisions. KEK have provided details of the specification and justification for this cost. ERO considers this reasonable and proposes to allow this cost in full.

3.1.4 Surveillance Cameras

KEK proposes to install security cameras intended to monitor the Kosovo A power plant facility installed at 60m intervals on the new security fencing ERO considers this reasonable and proposes to allow this cost in full.

3.1.5 New Fire engine for Generation

KEK intends to purchase a new fire engine with a 40m ladder as the existing equipment cannot reach high enough. ERO considers this reasonable and proposes to allow this cost in full.

3.1.6 Capital Refurbishment Unit A4 and A5

KEK must undertake a capital overhaul of Unit A4 in 2013, and Unit A5 in 2014 because maximum operating hours have been reached on this Unit. KEK will carry out works on both the turbo-generator and boiler as part of a package. EIHP have recommended holding KEK to the original estimate.

ERO is satisfied that these overhauls will bring benefits of increased equipment safety and functionality, increased efficiency and unit availability, as well as increased staff safety and ERO proposes to allow a total for both Unit A4 and Unit A5.

3.1.7 Refurbishment Units A3, A4

KEK plans to carry out capital repairs on Units A3 and A4 in 2014 during the units' annual outages in order to maintain their operating performance and sustainability. ERO considers this reasonable and proposes to allow this cost in full.

3.1.8 Refurbishment Units A3, A4, A5

During the annual outages of 2015 and 2016, KEK similarly plans to carry out capital repairs and refurbishment on the all three of the operating units of Kosovo A. In their submission to ERO, KEK have estimated that the total annual cost. ERO accepts the rationale for carry out these annual works, but can see no justification for an increase in unit cost in real terms. ERO therefore proposes to allow a cost of €2.5 million lower than the one requested from KEK for the three units in each of years 2015 and 2016.

3.1.9 New Variable Speed Boiler Supply Pumps, Unit A3, A4

KEK advise that the feed pumps serving the boilers in Unit A3 and A4 require replacement with variable speed supply pumps. KEK estimated a higher cost for this capital purchase. However, during discussions with KEK it is clear that this item has previously been procured at a cost of lower cost, and therefore ERO proposes to allow this item at 80,000€ lower than proposed for two units.

3.1.10 ERO's Final Evaluation of Capex for Kosovo A

ERO's Final evaluation for Kosovo A capex is set out in *table g* below.

Table g – Kosovo A Final Evaluation of Capital Projects

ERO Final Evaluation of capex for Kosovo A	2012 € 000's	2013 € 000's	2014 € 000's	2015 € 000's	2016 € 000's	Total € 000's
KEK's requested capex	36,480	26,797	19,530	12,750	10,000	105,557
ERO's proposed capex	36,480	23,018	17,710	10,210	7,500	94,918
Difference (€ 000's)	0	-3,780	-1,820	-2,540	-2,500	-10,640
Difference %	0%	-14%	-9%	-20%	-25%	-10%

3.2 Kosovo A Proposed Opex

3.2.1 Reallocation of HQ costs

ERO has reallocated headquarters costs for Kosovo A in the same manner as described for Mining Division in section 2.2.1 above.

3.2.2 Staff Costs

In its calculations KEK has assumed a 5% growth in unit employee costs for Kosovo A station over and above the cost of inflation. ERO seems no justification for this increase in staff costs in real terms. It therefore proposes to allow for salary costs to stay stable at 2012 levels for the period of the control.

3.2.3 Fuel Costs and Other Utilities

KEK forecast expenditure of some €25.8 million over the period 2013-2016 on "Fuel Costs and other utilities" for Kosovo A, a cost item which consists of: fuel cost (not including cost of coal), cost of lubricant and other chemicals, and costs related to transmission of electricity.

Cost of fuel, which refers to the cost of heavy fuel oil is obtained as a multiple of projected unit costs of fuel oil and expected quantities of fuel oil to be used. EIHP have examined the assumptions behind these values and considers that they are reasonable. ERO therefore proposes to allow these amounts in full.

3.2.4 Maintenance Costs

Maintenance category consists of repairs service and maintenance service items. For the observed regulatory period repairs services are not foreseen. The licensee has envisaged only maintenance services with the growing unit cost trend, expressed per MWh of generated electricity.

EIHP has adjusted downward the requested amount, assuming standardized cost of €0.92/MWh of generated electricity, the value achieved during year 2011. ERO considers this adjustment appropriate, and maintenance costs are therefore adjusted downwards by €3.11 million.

3.2.5 Materials and supplies costs

Material and supplies costs have been estimated by KEK at €4.85 million for 2013-2016 period. EIHP believes materials and supplies unit costs should be constant in real terms, expressed as €/MWh. Given that unit cost has varied substantially in the last two years precedeeing the regulatory period, EIHP has used an average value for 2010-2011 period which equals €0.673 per MWh of generated electricity.

3.2.6 Other Operating Expenses

Under “other operating expenses” for Kosovo A KEK has total forecast costs of €11.4 million in the period 2013-2016. This comprises reallocation of headquarters’ costs, costs of security, licences and “other” expenses.

Regarding ***allocation of HQ costs***, these have been adjusted downwards, following the same approach used for other licensees.

Security costs have been requested at the level of €0.4 million/year for the whole of regulatory period, and is equal to the value estimated for 2012.

Licensee costs

KEK have forecasted a varying level of cost to cover “licences”. ERO proposes to review its approach on setting licence fees early in the New Year, once the new annual budget has been passed by the Assembly and will set an appropriate allowance at that time.

Other expenses have been adjusted downwards using average value for 2011-2012 period, i.e. €396,000 /year.

Overall, adjusted *other operating expenses* are lower by €0.259 million than the amount requested by KEK in its submission.

3.2.7 ERO's Final Evaluation of KEK Kosovo A Opex Proposals

The table below summarises the total operating expenditures proposed by KEK for Kosovo A for the period 2013 to 2016, together with ERO's final evaluation of those same expenditures. It should be noted that the table below <u>excludes</u> the internal cost of coal which is paid by Kosovo A to the Mining Division and depreciation and amortization.

Table h – Final Evaluation of Kosovo A Opex

ERO Final Evaluation of opex for Kosovo A	2013	2014	2015	2016	Total
	€ 000's	€ 000's	€ 000's	€ 000's	€ 000's
KEK's requested opex	19,604	20,029	20,300	20,349	80,281
ERO's proposed opex	17,569	16,590	15,735	14,893	64,786
Difference (€ 000's)	-2,035	-3,438	-4,565	-5,456	-15,495
Difference %	-10%	-17%	-22%	-27%	-19%

3.3 Kosovo B - Proposed Capex

The capital projects planned for Kosovo B in the period are described in Annex A, together with a technical assessment of KEK's justification for the projects.

In addition to planned projects for the forthcoming control period, 2013-2016, KEK's submission contained a number of projects for 2012, shown in *Table i* below.

Table i – Kosovo B Ongoing Capital Projects

KEK's proposed capital projects for Generation Kosovo B	2012 €000s
Capital Overhaul Unit B1	
Circuit Breakers Units B1 and B2	
Variable speed drives for B Units	
Rotors for boiler pumps for B Units (4)	
Electric Motors for B Units	
Unforeseen/Unplanned work	
Total	27,570

In addition, *table j* below shows capital projects for Kosovo B planned by KEK's Generation Division for the period of the new control, 2013-2016:

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Table j – Kosovo B Proposed Capital Projects 2013-2016

Projects for 2013-2016	2013 €000s	2014 €000s	2015 €000s	2016 €000s	Total €000s
TCB-2550 Fencing & high rise fencing gates					
Surveillance cameras					
New fire engine					
Other (cooling towers, chimney, chemical water treatment)					
New outer casing high pressure turbine Unit B1					
Five year overhaul Unit B1					
Five year overhaul Unit B2					
Modernisation of coal milling and transport system					
Total Capital Expenditure (all years)	**11,572**	**7,500**	**22,000**	**15,000**	**56,072**

3.3.1 TCB - 2550 Fencing (Inclusive of 4 High-rise fencing gates)

As with the site of Kosovo A, KEK also proposes to erect fencing is necessary to divide and protect real estate property of Power plant Kosovo B from the neighboring Coal divisions. KEK have provided details of the specification and justification for this cost, ERO considers this reasonable and proposes to allow this cost in full.

3.3.2 Surveillance Cameras

KEK proposes to install security cameras intended to monitor the Kosovo B power plant facility installed at 60m intervals on the new security fencing. ERO considers this reasonable and proposes to allow this cost in full.

3.3.3 New Fire engine for Generation

As with Kosovo A, KEK intends to purchase a new fire engine for Kosovo B Station with a 40m ladder as the existing equipment cannot reach high enough. ERO considers this reasonable and proposes to allow this cost in full.

3.3.4 Opening of High Pressure Cylinders and others

In the last version of templates received this item was broken down into “Modernizimi I transmisionit te sistemit te mullinjeve (16 mullinje)” and “KF, oxhaku, dhe tjera”. Given that no official translation was provided, EIHP sought explanation from KEK on the nature of the investment. It was explained that the investment relates to replacement of hydraulic speed drive system for each of the mills. KEK estimates the cost on an estimate based on a rule of thumb. Given that KEK did not go through tendering process for this investment and hveing in mind large number of items which will be procured from the same producer, ERO allowed this cost at 50% of requested amount.

A second item, “KF, oxhaku, dhe tjera” refers to the refurbishment of common systems (cooling towers, chimney, chemical water treatment). This amount was found reasonable, and ERO proposed to allow this amount in full.

3.3.5 New Outer Casing for High Pressure Turbine, Unit B1

The high pressure turbine casing for Unit B1 is cracked and its operation in this condition is considered unsafe. The turbine is an Alstom turbine and the casing must be designed and built by that company. There is a 12 month lead time. Alstom’s estimate has now been received and ERO therefore proposes to allow this cost, at €3.5 million.

3.3.6 Capital Refurbishment, Unit B1

KEK proposes to carry out its 5 year overhaul of Units B2 (2015) and B1 (2016) during the forthcoming control period. The works will include overhauls of the units’ steam turbine, electro-generator and boiler. EIHP have advised that this includes items which it does not consider need to be purchased new by a prudent operator (e.g. unit door for B1 and B2). ERO has therefore reduced KEK’s allowance for these capital items by €2 million for each overhaul.

3.3.7 ERO’s Final Evaluation of Capex for Kosovo B

ERO’s final evaluation for Kosovo B capex is set out in *table k* below.

Table k – Final Evaluation of Kosovo B Capex

ERO Final Evaluation of capex for Kosovo B	2012 € 000’s	2013 € 000’s	2014 € 000’s	2015 € 000’s	2016 € 000’s	Total € 000’s
KEK's requested capex	27,570	11,572	7,500	22,000	15,000	83,642
ERO’s proposed capex	17,343	9,072	5,500	16,500	13,000	61,415
Difference (€ 000’s)	-10,227	-2,500	-2,000	-5,500	-2,000	-22,227
Difference %	-37%	-22%	-27%	-25%	-13%	-27%

3.4 Kosovo B Proposed Opex

3.4.1 Reallocation of HQ costs

ERO has reallocated headquarters costs for Kosovo B in the same manner as described for Mining Division in section 3.2.1 above.

3.4.2 Staff Costs

As with Kosovo A and other licensed activities, KEK has assumed a 5% growth in unit employee costs over and above the cost of inflation. ERO seems no justification for this increase in staff costs in real terms. It therefore proposes to allow for salary costs to stay stable at 2012 levels for the period of the control for Kosovo B.

3.4.3 Electricity and Other Utilities

KEK forecast expenditure of some €21.15 million over the period 2013-2016 on "Electricity and other utilities" for Kosovo B, a cost item which consists of: fuel cost (not including cost of coal), cost of lubricant and other chemicals, and costs related to transmission of electricity.

Cost of fuel, which refers to the cost of heavy fuel oil, is obtained as a multiple of projected unit costs of fuel oil and expected quantities of fuel oil to be used. ERO have examined the assumptions behind these values and considers that they are reasonable.

3.4.4 Maintenance Costs

This item consists of repairs service and maintenance service items. For the observed regulatory period repairs services are not foreseen. The licensee has envisaged only maintenance services with the declining unit cost trend, expresses per MWh of generated electricity. ERO concurs with EIHP's assessment that it has found requested values reasonable and has not made any adjustments.

3.4.5 Other Operating Expenses

Under "other operating expenses" for Kosovo B, KEK has total forecast costs of €12.6 million in the period 2013-2016. This comprises reallocation of headquarters' costs, costs of transport, security, licences and "other" expenses.

Regarding ***allocation of HQ costs***, these have been adjusted downwards, following the same approach used for other licensees.

Transport service costs, as proposed by the licensee, were adjusted downwards to 2011 level during 2012-2016 years, the only historic year for which this cost has been recorded.

Security costs have been requested at the same level as previous year and is equal to the value estimated for 2012.

Licensee costs ERO proposes to review its approach on setting licence fees early in the New Year, once the new annual budget has been passed by the Assembly and will set an appropriate allowance at that time.

Other expenses have been adjusted downwards using value for 2012.

Overall, adjusted *other operating expenses* for Kosovo B are lower by €2.6 million than the amount requested by KEK in its submission.

Final Evaluation – KEK Generation Detail

3.4.6 ERO's Final Evaluation of KEK Kosovo B Opex Proposals

The table below summarises the total operating expenditures proposed by KEK for Kosovo A for the period 2013 to 2016, together with ERO's final evaluation of those same expenditures. It should be noted that the table below excludes the internal transfer cost of coal and depreciation and amortization.

Table l – Final Evaluation of Kosovo B Opex

ERO Final Evaluation of opex for Kosovo B	2013 € 000's	2014 € 000's	2015 € 000's	2016 € 000's	Total € 000's
KEK's requested opex	15,192	15,479	15,787	16,046	62,505
ERO's proposed opex	14,134	13,563	13,021	12,523	53,240
Difference (€ 000's)	-1,057	-1,917	-2,767	-3,524	-9,265
Difference %	-7%	-12%	-18%	-22%	-15%

4 Other Regulatory Parameters

4.1 Efficiency Factor

ERO is required by the Pricing Rule to set an efficiency factor that will apply to 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 operator. In setting the level of the efficiency factor, ERO has considered the costs of running the business by the Generation and Mining Divisions 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 concludes that there is scope for significant efficiency gains in the Generation and Mining 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 considers that a value of 4% per annum is an appropriate efficiency factor in the MYT period, representing both a challenging incentive for the Generation and Mining Divisions 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.

4.2 WACC

ERO has set the Weighted Average Cost of Capital for Generation 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 previous discussions on WACC).

Final Evaluation – KEK Generation Detail

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's final evaluation therefore is that a level of 5.50% post-tax return on equity is appropriate for publicly owned companies. ERO has therefore used this return on equity in evaluating the Generation division's WACC.

The resulting WACC for Generation is set at 5.22% (real, pre-tax).

5 Final MARs 2013-2016

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

Table m – Final Evalution of MARs for KEK's Regulated Generators

Final Evaluation of MARs for KEK's Generation business	2013 € 000's	2014 € 000's	2015 € 000's	2016 € 000's	Total € 000's
Kosovo A and Kosovo B	150,957	151,584	152,776	152,697	608,014