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KOSOVO ENERGY CORPORATION J.S.C.

**TARIFF APPLICATION
YEAR 2012**

Part II – Regulated Generator Tariff Application

05 January 2012

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I. Introduction

A. Overview

This Application is respectfully submitted to the Energy Regulatory Office (ERO) of Kosovo for the approval of the proposed regulated tariffs for Kosovo A and Kosovo B generating plants, which are licensed by the ERO to Kosovo Energy Corporation J.S.C. (KEK). It is proposed that the tariffs become effective on 1 April 2012.

The recently-adopted energy laws of the Government of Kosovo, together with the new Pricing Rules approved by the Energy Regulatory Office (ERO) require the owners of the Kosovo A and B generating facilities to develop and submit the methodology for determining the regulated tariffs for sales to the Public Electricity Supplier (PES). Previously, the tariff methodology had been developed by the ERO.

The regulated generation tariffs proposed by KEK in this application are based on the annual Maximum Allowed Revenues (MAR) for the first year of the regulatory period to be € 149,407,000, which includes the MAR for mining, as required by the ERO Rule on Regulated Generator Pricing. The assumptions, estimates, and calculations upon which the 2012 MAR is based are documented in this application

The calculations used in this application are based on the information contained herein and the document submitted to the ERO titled "Part I – Baseline Information for All Licensees".

B. Definitions

Unless otherwise noted, the definition of terms in this document are the same as those in the energy laws of Kosovo and those contained in the Pricing Rules adopted by the Energy Regulatory Office

C. Energy Balance

In order to calculate the total costs of producing electricity by the regulated generators for Kosovo, the official Energy Balance must provide the starting point. The energy balance prescribes the amount of energy, measured in kWh (or MWh) that is expected to be provided to the PES by the regulated generators. The energy produced is proportional to

the amount of lignite burned by each generating unit; hence, the cost of lignite production can also be calculated.

Table 1 – 2012 Energy Balance Summary

Line No.	Input/Output Description	Amount MWh
1	Kovovo A Net Generation (net of all Aux Power)	1,475.3
2	Kovovo B Net Generation (net of all Aux Power)	3,392.5
3	Ujmani generation	82.0
4	Imports	820.8
5	Total Into Transmission System (1 + 2 + 3 + 4)	5,770.6
6	Transmission Sales	744.6
7	KEK Use	20.4
8	Mines	111.0
9	Exports	169.8
10	Transmission Losses	128.2
11	Surplus	13.3
12	Total out of Transmission (6 + 7 + 8 + 9 + 10 + 11)	1,187.3
13	Net into Distribution System (5 - 12)	4,583.3
14	Distribution Connected Generation	51.5
15	Energy Delivered to North Kosovo by KOSTT	203.7
16	Distribution Technical and Commercial Losses	1,543.3
17	Net for Sales at Distribution Level (13 + 14 - 15 - 16)	2,887.8
	Distribution Level Sales	
18	35 kV	40.0
19	10 kV	200.0
20	0.4 kV	2,647.8
21	Total (18 + 19 + 20)	2,887.8

II. Maximum Allowed Revenues (MAR)

A. Introduction

It should be noted that if a bulk supply agreement is approved and signed by KEK and the new owner of KEDS the methodology proposed here may be supplanted by the agreement, as ERO has previously indicated.

B. Pricing Rule

In its “Rule on Regulated Generator Pricing (Generation Pricing Rule)”, the ERO adopted a multi-year regulatory period in which the MAR and the prices would initially be set at the beginning of the first year and would then be adjusted annually throughout the regulatory period using a pre-determined formula. At the end of the regulatory period, the base data will be evaluated and the starting prices for the next regulatory period would be set. The Appendix provides the calculations that would be used in the event that certain components of the MAR were to be “Smoothed” according to the pricing rule and the algorithms that ERO has provided. Although a “Smoothing” mechanism may work well in the rather static environment of highly developed countries, it is not a practical option for the volatile situation of generation in Kosovo as will be explained in Section E of this document. Also, the Kosovo population could not afford the sudden spike in retail tariffs that would be required to implement smoothing (i.e. why “Smooth” if “Smoothing” causes a major spike). For the above reasons, the 2012 MAR will be based on the costs of the year 2012, not a smoothed value.

C. Lignite Mine MAR Calculation

At this time, the lignite mine is owned and operated by the regulated generator; therefore the costs will be determined using the worksheet for this calculation as shown here since the Pricing Rule specifies that the MAR for the mine should be computed in a similar manner to that of the regulated generator.

The 2012 MAR for the mining operation of €70.7 million is detailed in Table 2.

Table 2 – Lignite Supply Maximum Allowed Revenues for 2012

GENERATOR TARIFF DEVELOPMENT

Lignite Supply Component

Euros in thousands except per unit values

All Costs Based on Year 2012

Cost Component:

Operating and Maintenance Expenses

Mine Operation and Maintenance		37,474	
Allocation of Headquarters Costs		5,198	
Electricity for Mine Operation:			
Consumption from Energy Bal (GWH)	111		
Price (Euros per MWH)	59		
Cost of Electricity for mine		6,549	
TOTAL OPERATION AND MAINTENANCE			49,221 = OPMC

Regulatory Asset Base for Depreciation Purposes:

Cost at 01 Jan 2012	280,370
2012 additions	28,000
Cost at 31 Dec 2012	308,370

Depreciation for the Year 2012 **11,775 = DEPC**

Accum. Depreciation at 01Jan12	52,018
Depreciation for the Year 2012	11,775
Accum. Depreciation at 31Dec12	63,793

Grants:

Grants at 01 Jan 2012	53,394
Grant Amortization 2012	2,225
Grants at 31 Dec 2012	51,169

RABf for Return Calculation:

Beginning of Year	174,958	
End of Year	193,408	
Average for 2012		184,183

Rate of Return for Mine

Based on Average Cost of Capital for 2012	5.64%
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Return for 2012 **10,380 = RTNC**

Pass Through Costs:

Lignite Royalty	2,030 = PSTC
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Other Items:

Adjustment for underspending on 2011 CAPEX	(1,251)	
Income from 3rd Party Coal Sales	(1,500)	
Total Other Costs		(2,751)

Total Cost to KEK Generation for Lignite **70,655 = LGSC**

Cost per ton (based on 7,688,000 tons consumed) **9.19**

The values for the Lignite Supply Costs (LGSC) in Table 2 are determined for the various components of the MAR formula in Schedule 1 of the Generation Pricing Rule as follows:

a) Operating and Maintenance Costs (OMPC)

The O&M costs for the mine in 2012 (€37.5 million) are those contained in the KEK budget for 2012. This is lower than the €42.2 million approved by ERO in the 2011 tariff review, due primarily to the more aggressive cost control of materials and services costs being undertaken by KEK.

The allocation of Headquarters costs to the mine (€5.2 million) is slightly lower than ERO approved in 2011. The allocation method (headcount) is the same as in previous tariff reviews

In the new unbundled environment, the Public Supplier will be purchasing energy from the Public Generator at the delivery point to the transmission system. Since the mine utilizes energy from the distribution system, it will be billed for that energy by the Public Supplier at regulated tariffs. The cost of that energy is included in the O&M costs. Of course, the Public Supplier will reflect this revenue credit in its MAR.

b) Allowed Depreciation (DEPC)

The new pricing rules have redefined the Regulatory Asset Base and included the pre 2006 assets in the RAB. Part I of the KEK Tariff Application provided a documentation of the RAB as of 31 December 2011. Using that as the starting point, the 2012 capital additions of €28 million were added and the depreciation for 2012 was based on the average fixed asset balance and the 25 year life of mining assets to produce a value of €11.8 million for 2012 depreciation.

c) Allowed Return on Capital (RTNC)

The year- end 2011 RAB information and WACC information in Part I of the tariff application provide the starting point for the RAB and return calculations for 2012. Table 2 utilizes that information and incorporates the expected 2012 activity (CAPEX, depreciation, and grant amortization) to arrive at an average RAB for the calculation of return.

The WACC for 2012 is based on the average of the capital structure and costs at the beginning and end of 2012. The documentation of the cost of debt for the mine and generation is contained in Appendix B and the documentation for the WACC for each KEK

division in 2012 is contained in Appendix C. The WACC of 5.64% for the mine when applied to the average RAB of €184 million produces a return of €10.38 million.

d) Pass Through Costs (PSTC)

The Lignite Royalty is defined in the Pricing Rule as a “Pass through Cost”. The 2012 royalty is estimated to be €2.03 million assuming the royalty per ton remains at the current level of €0.26 per ton.

e) Other Items to include in MAR

The MAR for 2012 should include two additional components. Since KEK did not spend the total amount of CAPEX allowed in tariffs for 2011, an adjustment needs to be made in 2012 to reflect the depreciation and return on the unspent amount.

Additionally, the MAR must be adjusted by the revenues expected for coal sales (€1.5 million)

D. Generation Calculation of MAR

The Generation MAR for the first year of the Regulatory Period is calculated as shown in Table 3. The table incorporates the MAR for the mining operation calculated in Table 2.

Table 3 – Generator Maximum Allowed Revenues for 2012

GENERATOR TARIFF DEVELOPMENT

Euros in thousands except per unit values

All Costs Based on Year 2012

Cost Component

Operating and Maintenance Expenses

Generation O&M		27,221	
Allocation of Headquarters Costs		2,573	
Electricity from System for Aux Power:			
Consumption from Energy Bal (GWH)	154.7		
Price (Euros per MWH)	56		
Energy Cost for Aux Power		8,663	
TOTAL O&M COSTS			38,457 =OPMC

Regulatory Asset Base for Depreciation Purposes:

Cost at 01 Jan 2012	268,905
2012 additions	60,770
Cost at 31 Dec 2012	329,675

Depreciation for the Year 2012 **18,706 =DEPC**

Asset Life in years as of 2012	16
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Accum. Depreciation at 01Jan12	113,796
Depreciation for the Year 2012	18,706
Accum. Depreciation at 31Dec12	132,502

Grants:

Grants at 01 Jan 2012	28,538
Grant Amortization 2012	1,903
Grants at 31 Dec 2012	26,635

RABf for Return Calculation:

Beginning of Year	126,571
End of Year	170,538
Average for 2012	148,555

Rate of Return for Generation

Based on Average Cost of Capital for 2012	12.64%
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Return for 2012 **18,778 =RTNC**

Lignite Supply Costs **70,655 = LGSC**

Pass Through Costs:

Generator License Fee	521	
KOSTT Fee to Kosovo A and B	3,300	
TOTAL Pass Through Costs		3,821 =PSTC

Other Items:

Adjustment for underspending on 2011 CAPEX	(710)	
Income from Sale of Ash	(300)	
Total Other Costs		(1,010)

Total Cost of Kosovo A and B Generation **149,407 =MAR**

Output (Net GWH) **5,023**

Cost of Generation (Euros per MWH) **29.75**

The values for the components of MAR in Table 3 are determined for the various components of the MAR formula in Schedule 1 of the Generation Pricing Rule as follows:

a) Operating and Maintenance Costs (OMPC)

The O&M costs for generation in 2012 (€27.2 million) are those contained in the KEK budget for 2012. This is lower than the €30.8 million approved by ERO in the 2011 tariff review, due primarily to the more aggressive cost control of materials and services costs being undertaken by KEK.

The allocation of Headquarters costs to generation (€2.6 million) is approximately the same as ERO approved in 2011. The allocation method (headcount) is the same as in previous tariff reviews

Kosovo A and Kosovo B require Auxiliary Power in order to operate. Approximately 75% of that power is provided by the plant itself while the remainder is provided from the distribution network at 35 KV and 10 KV. Given the separation of Network and Supply from KEK, that energy supplied from the distribution system must be paid for at retail tariffs, similar to the energy utilized by the mines. The cost of that energy is included in the O&M costs. Of course, the Public Supplier will reflect this revenue credit in its MAR.

b) Allowed Depreciation (DEPC)

The new pricing rules have redefined the Regulatory Asset Base and included the pre 2006 assets in the RAB. Part I of the KEK Tariff Application provided a documentation of the RAB as of 31 December 2011. Using that as the starting point, the 2012 capital additions of €60.77 million were added and the depreciation for 2012 was based on the average fixed asset balance and the 16 year life of generation assets to produce a value of €18.7 million for 2012 depreciation.

c) Allowed Return on Capital (RTNC)

The year- end 2011 RAB information and WACC information in Part I of the tariff application provide the starting point for the RAB and return calculations for 2012. Table 3 utilizes that

information and incorporates the expected 2012 activity (CAPEX, depreciation, and grant amortization) to arrive at an average RAB for the calculation of return.

The WACC for 2012 is based on the average of the capital structure and costs at the beginning and end of 2012. The documentation of the cost of debt for the mine and generation is contained in Appendix B and the documentation for the WACC for each KEK division in 2012 is contained in Appendix C. The WACC of 12.64% for Generation when applied to the average RAB of €148.6 million produces a return of €18.78 million.

d) Lignite Supply Costs (LGSC)

The Lignite Supply Costs of €70.66 million as determined in Table 2 are a component of the Generation MAR.

e) Pass Through Costs (PSTC)

The Generator License Fee is defined in the Pricing Rule as a “Pass through Cost”. The 2012 fee is estimated to be €521,000 in 2012.

The second pass through cost is the KOSTT fees for System Operator and Market Operator that are charged to Kosovo A and Kosovo B. Those are assumed to be €3.3 million in 2012.

f) Other Items to include in MAR

The MAR for 2012 should include two additional components. Since KEK did not spend the total amount of CAPEX allowed in tariffs for 2011, an adjustment needs to be made in 2012 to reflect the depreciation and return on the unspent amount.

Additionally, the MAR must be adjusted by the revenues expected for sale of ash (€300,000)

KEK recommends that ERO review and approve the proposed 2012 MAR for the Public Generator of €149,407,000.

E. The Issue of Smoothing

The Pricing Rule utilizes a multi-year approach to tariffs and in the case of the Public Generator a four year period is proposed. The concept of “Smoothing” is introduced whereby certain components of the MAR are computed for the entire 4 year period using inflation indices and various estimates including predetermined capital expenditures. KEK has performed those calculations for Generation and the results are shown in Appendix A.

For the Depreciation component of MAR, an estimate of the 2013 – 2015 capital expenditures is required. At the present time, KEK plans to complete the installation of Electrostatic Precipitators in the three units at Kosovo A, overhauls of units A4 and A5, and complete the other generation projects in progress. In addition, normal capital replacements are expected to occur resulting in approximately €30 million of CAPEX per year. It must be noted that this forecast does NOT anticipate a life extension program for Kosovo A or Kosovo B, which may be required due to the fact that the New Kosovo generating capacity will not be available until approximately 2020.

Even with the relatively modest CAPEX forecasted for the following 3 years, the smoothed depreciation value is €25.3 million compared to the €18.7 million value computed for 2012 alone (a 35% increase). That 35% increase is on top of the increase needed for 2012 alone. Likewise, for the return component of MAR, the smoothed value is €22.4 as shown in Appendix A, compared to the €18.8 million for 2012 alone (a 19% increase).

The Operation and Maintenance component is €40.0 million as compared to the €38.5 million.

Since the proposed generation MAR based on 2012 costs alone will require a significant increase in retail tariffs (partially due to the addition of pre 2006 assets in RAB), it is not appropriate to implement smoothing which has the impact of increasing retail prices even more in 2012, a move that would be a very difficult one to implement politically. Another way to look at this issue is that smoothing is generally used to prevent tariff spikes; however, in the Kosovo situation where prices in the past were arbitrarily low, the impact is to create an even greater spike. For those reasons, KEK is requesting ERO not to implement smoothing at this time.

The proposed tariff design to recover the MAR is shown in Section III, Proposed Tariffs.

III. Proposed Tariffs

The tariffs for generation are determined by dividing the allocated MAR by the billing determinants.

A. Billing Determinants

The Generation Pricing Rule states that the “Capacity Charges shall be expressed in Euros per unit of available capacity per hour”. The Pricing Rule also says that the ERO will develop and issue its methodology for calculating the Availability for each hour.

As of 31 December 2011, the ERO had not yet issued such a methodology. Since the Generation Pricing Rule states that: “The Regulator shall initiate the Periodic Review no later than 120 Business Days prior to start of the forthcoming Regulatory Period” and there are less than 90 days until the regulatory period begins, there is no time to implement a complex availability pricing mechanism. In markets where availability pricing is utilized, there are detailed rules in place as to how availability will be determined in a real time environment. It would take a significant amount of time to develop rules and there is no time to do that in an open transparent environment in time to use for this tariff review. In addition, KEK is of the opinion that availability pricing is a risky mechanism when dealing only with generating units that are old and subject to frequent outages due to a variety of causes. KEK is willing to work with ERO during 2012 to develop an alternative mechanism for the recovery of fixed costs of the generating plants. Until that time, it is proposed that the fixed costs be divided by 12 and that cost be charged to the Supplier along with the energy charge each month.

The prices for electricity supplied by the generator are separated into two components; a standing charge and an energy charge. The standing charge is based on the fixed costs of the generation and mining; these are costs that do not change with the volume of electricity produced. In the Pricing Rule, ERO defines variable costs as the costs that would not be incurred if the units supplied in any year were zero. KEK has followed that guidance in classifying the costs. Hence, it is appropriate that the standing charge is simply the fixed annual costs (determined by the calculation of the MAR) divided by 12 months, thus resulting in a fixed monthly charge.

The energy charge is based on the variable costs and is directly tied to the volume of electricity produced. Using this definition, the billing determinant for the energy charges are calculated using the data from the annual kWh produced (excluding off-site auxiliary power) and sold to the Public Electricity Supplier.

B. Cost Classification

The costs included in the calculation of the MAR are classified (allocated) into those that are fixed and those that are variable. The classification of the generation costs is shown in this table.

Line No.	(A) MAR Component	(B) Items	(C) Fixed Costs € ('000)	(D) Variable Costs € ('000)	(E) Total Costs € ('000)
1	OPMC _t	Operation & Maintenance	€24,719	€ 11,165	€ 35,884
2	DEPC _t	Total Depreciation	€ 18,706		€ 18,706
3	RTNC _t	Total Return	€ 18,778		€ 18,778
4	LGSC _t	Allowed Lignite Costs	€62,076	€8,579	€ 70,655
5	OTFC _t	Other fuel cost	(€ 710)	(300)	(€ 1,010)
6	PSTC _t	Total Pass-through	€ 521	€3,300	€ 3,821
7	HQC _t	Headquarters costs	€ 2,573		€ 2,573
8	Total Generation MAR		€126,663	€ 22,744	€ 149,407

Detailed work papers available on request.

C. Proposed Tariffs

The proposed tariffs which are billed on a monthly basis are from the table above and the energy balance:

Standing Charge: From Table, € 126,663,000 /12

€ 10,555,250 /month

Energy Charge: From Table, € 22,744,000/5,022.5 GWh (from energy balance, net of off-site Auxiliary Power)

€4.53 /MWh

Appendix A - CAPEX and Smoothing

Since the Regulatory Period multi-year, the Generation Pricing rule indicates that the MAR should be smoothed in order to prevent large increases in years when new CAPEX is completed. Therefore, the following table is used to calculate the Net Present Value of future CAPEX, and in turn the calculation of the annual depreciation costs included in the MAR as well as the O&M Costs.

GENERATOR TARIFF DEVELOPMENT

Euros in thousands except per unit values

Multi Year Calculations

No Additional Capacity Scenario

Assume all Load Growth Requires Increased Imports

		2012	2013	2014	2015
HICPI Percent Increase	(Assumption)	3%	3%	3%	3%
RAB For Depreciation					
Cost Beginning Balance			339,565	380,652	422,972
Additions			30,000	30,000	30,000
Cost end of year		329,675	369,565	410,652	452,972
Depreciation:					
Remaining Life (in years)		16	15	14	13
Depreciation for the year		18,706	23,638	28,261	33,690
Depreciation smoothed:	NPV	75,939			
	Annuity	25,340	25,340	25,340	25,340
Accumulated Depreciation					
Beginning of Year			136,477	164,918	198,974
Depreciation for the Year			23,638	28,261	33,690
End of Year		132,502	160,114	193,179	232,664
Grants					
Beginning of Year			27,434	26,238	24,946
Amortization for the Year		1,903	1,960	2,019	2,079
End of Year		26,635	25,474	24,219	22,866
RAB for Return Calculation					
Beginning of year			175,655	189,496	199,052
End of Year		170,538	183,977	193,254	197,441
Average		148,555	179,816	191,375	198,247
Rate of Return		12.64%	12.64%	12.64%	12.64%
Return for the Year		18,778	22,729	24,191	25,059
Return Smoothed	NPV	67,078			
	Annuity	22,383	22,383	22,383	22,383
Operation and Maintenance					
HICPI		3%	3%	3%	3%
Efficiency Factor		0%	0%	0%	0%
O&M Smoothed:	NPV	120,013			
	Annuity	40,047	40,047	40,047	40,047

Appendix B – Weighted Average Cost of Debt – Year 2012

<u>Long Term Debt at 31 December 2011</u>			
(Euros in thousands)			
	Principle	Int Rate	Weighted Cost
<u>Mines:</u>			
Sibovic SW Loan #1	75,000	7.43%	3.68%
Sibovic SW Loan #2	58,445	6.00%	2.32%
Sibovic SW Loan #3	17,942	6.00%	0.71%
	151,387		6.71%
<u>Generation:</u>			
Rehabilitation of A5	9,400	7.43%	2.67%
Rehabilitation of B1 &	5,400	6.00%	1.24%
Refurbishment B1 & I	11,353	6.00%	2.60%
	26,153		6.51%
Composite Cost of Debt	177,540		6.68%

Estimated 2012 Loan Activity

SSW Loan #1 will begin to be paid off in 16 semiannual principle repayments starting Jan 2012
 SSW Loan #2 will be frozen at its 31 Dec 2011 Balance - semiannual repayment begins Jan 2012
 SSW Loan #3 will be used for €15 million of CAPEX in 2012 then frozen - Repayment begins in 2013
 The 3 Generation loans will begin to be paid off in Jan 2012 (16 equal semiannual repayments)

<u>Long Term Debt at 31 December 2012</u>			
(Euros in thousands)			
	Principle	Int Rate	Weighted Cost
<u>Mines:</u>			
Sibovic SW Loan #1	65,625	7.43%	3.26%
Sibovic SW Loan #2	51,139	6.00%	2.05%
Sibovic SW Loan #3	32,942	6.00%	1.32%
	149,706		6.63%
<u>Generation:</u>			
Rehabilitation of A5	8,225	7.43%	2.67%
Rehabilitation of B1 &	4,725	6.00%	1.24%
Refurbishment B1 & I	9,934	6.00%	2.60%
	22,884		6.51%
Composite Cost of Debt	172,590		6.61%

Appendix C – Weighted Average Cost of Capital by KEK Division – Year 2012

Average 2012 Capital Structure and Cost of Capital

CAPITAL STRUCTURE						
	Mine			Generation		
	1-Jan-12	31-Dec-12	Average	1-Jan-12	31-Dec-12	Average
Regulatory Asset Base	174,958	193,408	184,183	126,571	170,538	148,555
Long Term Debt	151,387	149,706	150,547	26,153	22,884	24,518
Equity Component	23,571	43,702	33,636	100,418	147,654	124,036
GEARING	0.865	0.774	0.817	0.207	0.134	0.165

WEIGHTED AVERAGE COST OF CAPITAL BY DIVISION						
$WACC = (1 - g) * (rE) / (1 - t) + g * (rD)$						
	Mine			Generation		
	1-Jan-12	31-Dec-12	Average	1-Jan-12	31-Dec-12	Average
Gearing (g)	0.865	0.774	0.817	0.207	0.134	0.165
Return on Equity (rE)	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%
Cost of Debt (rD)	3.71%	3.63%	3.67%	3.51%	3.51%	3.51%
Tax Rate (t)	10%	10%	10%	10%	10%	10%
WACC	5.15%	6.07%	5.64%	12.19%	12.98%	12.64%