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**KOSOVO ENERGY CORPORATION J.S.C.**

# TARIFF APPLICATION

# YEAR 2012

## Part V – Public Electricity Supplier Tariff Application

**13 January 2012**

## Table of Contents


**I. Introduction** ..... 3

**A. Overview** ..... 3

**B. Energy Balance** ..... 3

**C. Definitions** ..... 4

**II. Pricing Rules and Tariff Methodology** ..... 5

**A. Pricing Rule** ..... 5

**B. Tariff Methodology** ..... 5

**II. Maximum Allowed Revenues (MAR)** ..... 5

**A. Costs to be recovered by the Public Supplier.** ..... 5

**a) Operating and Maintenance Costs** ..... 7

**b) Internal Consumption of Electricity** ..... 7

**c) Allowed Depreciation (DEPC)** ..... 7

**d) Other Items to include in Retail Costs** ..... 7

**e) Working Capital Allowance** ..... 8

**B. TOTAL MAR to be recovered by the Public Supplier in Retail Tariffs.** ..... 8

**IV. Allocation of MAR** ..... 10

**V. Determining Cost Reflective Prices by Tariff Group** ..... 11

**VI. Recommended Adjustments by Tariff Group** ..... 12

**Appendix A – 2012 Billing Determinants and Revenue at Current Tariffs** ..... 17

**Appendix B – Allocation of MAR to Tariff Categories** ..... 20

## I. Introduction

### A. Overview

This Application is respectfully submitted to the Energy Regulatory Office (ERO) of Kosovo by the Public Electricity Supplier (PES) for approval of the following:

A. Regulated costs of the Public supplier including Retail Costs and Working Capital Costs

B. Proposed regulated tariffs for retail customers served by the PES

### B. Energy Balance

In order to determine costs and revenues, 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 and the energy sales to consumers. Table 1 provides a summary of the final energy balance agreed to by Ministry of Economic Development, ERO, KOSTT, and KEK.

**Table 1 – 2012 Energy Balance Summary**

| Line No. | Input/Output Description | Amount GWH |
|---|---|---|
| 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 + a4)** | **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 Losses | 796.9 |
| 17 | Distribution Commercial Losses | 723.2 |
| 18 | **Net for Sales at Distribution Level (13 + 14 - 15 - 16 - 17)** | **2,911.0** |
| 19 | **Distribution Level Sales** | |
| 20 | 35 kV | 40.1 |
| 21 | 10 kV | 205.0 |
| 22 | 0.4 kV | 2,665.8 |
| 23 | **Total (20 + 21 + 22)** | **2,910.9** |

## C. 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

## II. Pricing Rules and Tariff Methodology

This section describes how this Tariff Application is in compliance with the Pricing Rules and the proposed Tariff Methodology submitted by KEK for approval by the ERO.

### A. Pricing Rule

In November 2011, the ERO adopted the "Rule on Public Electricity Supplier Pricing (PES Pricing Rule)". This Rule supersedes the previous "Rule on Principles of Calculation of Tariffs in the Electricity Sector (Pricing Rule)" and "Tariff Methodology for the Electricity Sector" that was adopted by the ERO on 15 December 2005.

### B. Tariff Methodology

## II. Maximum Allowed Revenues (MAR)

### A. Costs to be recovered by the Public Supplier.

The PES Pricing Rule prescribes the formula for calculating the MAR for the purpose of retail tariffs at the beginning of the Regulatory Period as follows:

$$MAR_t = OPMC_t + DEPC_t + RTNC_t + LSSC_t + LICC_t + KREV_t$$

This formula brings together the costs of all licensees in the sector including:

- Public Generator
- Transmission System Operator
- Distribution System Operator
- Public Supplier.

In this section, we will document the costs of the PES in order to have the basis for determining the total MAR.

Table 2 provides the details for determination of the costs of the PES. Following the table is the explanation of the manner in which the costs were developed.

## Table 2 – Public Supplier Costs

**PUBLIC ELECTRICITY SUPPLIER COSTS**

Euros in thousands except per unit values

All Costs Based on Year 2012

**Retail Costs of the Public Supplier**

| | | | |
|---|---|---|---|
| Supply Operation and Maintenance | | | **10,707** |
| Allocation of Headquarters Costs | | | **1,871** |
| Internal Consumption of Electricity: | | | |
| Consumption from Energy Bal (GWH) | | 33.7 | |
| Price (Euros per MWH) | | 38.65 | |
| Internal Use Energy Cost | | | **1,303** |

| Regulatory Asset Base for Depreciation Purposes: | | |
|---|---|---|
| Cost at 01 Jan 2012 | 4,832 | |
| 2012 additions | 395 | |
| Cost at 31 Dec 2012 | 5,227 | |
| **Depreciation for the Year 2012** | → | **1,006** |
| Asset Life in years as of 2012 | 5 | |
| Accum. Depreciation at 01Jan12 | 2,972 | |
| Depreciation for the Year 2012 | 1,006 | |
| Accum. Depreciation at 31Dec12 | 3,978 | |

| Adjustments to Retail Costs: | | |
|---|---|---|
| Tariff Balancing Account from 2011 | (11,016) | |
| Margin earned on internal sales (Mine, Gen) | (4,942) | |
| Adjustment for underspending on 2011 CAPEX | (33) | |
| Total Adjustments | | **(15,991)** |
| **TOTAL RETAIL COSTS** | | **(1,105)** **= RETR** |

**Working Capital Cost**

| Base for Working Capital: | | | |
|---|---|---|---|
| Retail Costs | (1,105) | | |
| Wholesale Energy for Retail Customers | 141,242 | | |
| Transmission Fees | 11,300 | | |
| Distribution Use of System Fees | 87,477 | | |
| License Fee | 0 | | |
| Working Capital (Annual) | | 238,914 | |
| Base for Working Capital (1/12) | | 19,910 | |
| Rate Applied to WC | | | |
| Eurobor (3 month rate) | 1.3% | | |
| S (adder) | 5.7% | | |
| Rate Applied (equals rate available to the PES) | | 7.0% | |
| **ALLOWED WORKING CAPITAL COSTS** | | | **1,365** **= WCLC** |

| **Bad Debt Expense** | | | |
|---|---|---|---|
| Allowed Revenues without Bad Debt | 227,279 | | |
| Bad Debt Allowance Percentage | **5%** | **= BDTA** | |
| Bad Debt Allowance in Retail Tariffs | | | **11,962** |
| **TOTAL SUPPLY COSTS FOR REGULATED CUSTOMERS** | | | **12,222** |

**a) Operating and Maintenance Costs**

The O&M costs for Supply in 2012 (€10.7 million) are those contained in the KEK budget for 2012. This is higher than the €9.1 million approved by ERO in the 2011 tariff review, due primarily to the fact that the personnel costs were based on the levels of several years ago and were not changed.
The allocation of Headquarters costs to Supply (€1.9 million) is slightly more than the amount ERO approved in 2011. The allocation method (headcount) is the same as in previous tariff reviews

**b) Internal Consumption of Electricity**

The internal consumption of electricity for district offices, cash offices, and other KEK facilities must be recorded as a cost in the new unbundled environment and that results in a cost of €1.3 million as shown in Table 2.

**c) 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 €395,000 were added and the depreciation for 2012 was based on the average fixed asset balance and the 5 year life of supply assets to produce a value of €1.0 million for 2012 depreciation.

**d) Other Items to include in Retail Costs**

The supply costs for 2012 should include three additional components.

- In its 2011 tariff decision, ERO estimated that the 2011 actual revenues for KEK would be higher than the 2011 Allowed Revenue by €11 million and categorized this as a "Tariff Balancing Account (TBA)" to be used to offset cost increases in 2012. That credit is shown as a reduction to Supply Costs of €11,016,000, thereby reducing the 2012 MAR.
- In order to properly unbundle the costs of the various licensees, energy used by the Mine and Generation entities was priced at retail costs (since the energy is supplied and metered at various distribution voltages). The revenue in excess of the wholesale cost of energy is shown as a credit, in effect offsetting a portion of the transmission, distribution and supply costs to be charged to regulated consumers.
- 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.

**Due primarily to the significant impact of the credit for the TBA from 2011, the proposed 2012 Retail Costs of the Public Supplier are a credit of €1,105,000. KEK proposes that ERO approve that amount.**

**e) Working Capital Allowance**

In addition to the Retail Costs, the Pricing Rule allows the PES to include a Working Capital Allowance in retail tariffs. As shown in Table 2, the base for the Working Capital Allowance includes:

- Retail Costs
- Cost of Wholesale energy for Retail Customers
- Transmission Fees payable to the TSO
- Distribution Use of System fees payable to the DSO
- The ERO License fee

The annual amount of those costs (€239 million) is multiplied by 1/12, recognizing the need for 30 days of operating costs as specified in the Pricing Rule. In its comments to ERO during the consultation process on the pricing rules, KEK requested ERO to allow at least a 45 day allowance, however, ERO decided on the 30 day allowance for the final rule.

The rate applied to the working capital level is specified in the pricing rule as follows:

> The cost of financing working capital shall be calculated as EURIBOR plus S%, where S is a value to be determined by the Regulator at Annual Updates and which reflects the premium payable by the licensee for short-term loans.

The European Banking Federation Interbank Offer Rate for Euro deposits for a period equal to 3 months was approximately 1.3% as of 06 January 2012, the lowest point since April 2011, according to the Reuters news service. Since the cost of short term financing for KEK is approximately 7%, the appropriate value for S is 5.7%. As shown in Table 2, the recommended working capital allowance for 2012 is €1.4 million.

**f) Bad Debt Expense**

For the year 2011, KEK will collect approximately €20 million less than the amount it billed, resulting in about 10% of bad debt expense. In its 2011 tariff decision, ERO allowed KEK to recover €5 million of bad debt cost in tariffs, about 2.5% of billed revenue. For the year 2012, KEK is requesting a bad debt allowance of 5%, approximately half of the amount expected in 2011. This recognizes the poor economic conditions of high poverty and unemployment levels while giving the PES plenty of incentive to increase collections. Table 3 shows a bad debt expense of €12 million, 5% of the MAR.

**The recommended costs to be recovered by the Public Supplier are €12,222,000 and ERO is requested to approve that amount.**

**B. TOTAL MAR to be recovered by the Public Supplier in Retail Tariffs.**

The total MAR to be recovered in tariffs includes the costs of all the Licensees in the sector as follows:

- Public Generator – Documented in Part II of KEK's Tariff Application
- Wholesale Electricity Cost - Documented in Part II of KEK's Tariff Application
- Transmission Costs – To be addressed by KOSTT, the cost herein is estimated
- Distribution Use of System - Documented in Part IV of KEK's Tariff Application
- Supplier Costs – Documented in the above section of this application

Table 3 contains all the above costs and documents the 2012 MAR according to the components required in Schedule 1 of the PES Pricing Rule.

**Table 3 – Proposed 2012 MAR for Retail Tariff Recovery**

**MAXIMUM ALLOWED REVENUES FOR RETAIL TARIFFS**

Euros in thousands except per unit values

$$MAR_t = (RETR_t + WCLC_t + WHPC_t + PSTC_t - NTFR_t + KREV_t) / (1-BDTA_t)$$

| | | | | |
|---|---|---|---|---|
| **Allowed Retail Costs** | | | **RETR =** | **(1,105)** |
| **Allowed Working Capital Costs** | | | **WCLC =** | **1,365** |
| **Allowed Wholesale Power Costs** | | | **WHPC =** | **141,242** |
| Sales to 220 & 110 KV Customers (GWH) | | 744.6 | | |
| Wholesale Price - Transmission (€/MWH) | | 38.59 | | |
| Cost of Energy | | | 28,734 | |
| Sales to Distribution Customers (GWH) | | 2910.941 | | |
| Wholesale Price - Distribution (€/MWH) | | 38.65 | | |
| Cost of Energy | | | 112,508 | |
| **Pass Through Costs** | | | **PSTC =** | **98,777** |
| Transmission Fees | | 11,300 | | |
| Distribution Use of System Fees | | 87,477 | | |
| License Fee | | 0 | | |
| **Non - Tariff Revenues** | (Import Power Subsidy) | | **NTFR =** | **(13,000)** |
| **Revenue Adjustment Factor** | | | **KREV =** | **0** |
| **Total Allowed Revenues prior to Bad Debt Expense** | | | | **227,279** |
| **Bad Debt Allowance Percentage** | | | **BDTA =** | **5.0%** |
| **TOTAL REQUESTED MAXIMUM ALLOWED REVENUES** | | | **MAR =** | **239,241** |

The requested MAR of €239,241,000 for 2012 in the above table was based on the following:

- The Allowed Retail Costs and Working Capital costs were documented in the previous section
- Allowed Wholesale Power costs were documented in Part III of KEK's tariff Application. Those unit prices were applied to sales to transmission and distribution customers to arrive at €141.2 million
- Pass through costs of €98.8 million consist of estimated transmission fees to be charged to the Public Supplier of €11.3 million, which will be adjusted when ERO approves the transmission

tariffs for KOSTT. Distribution Use of System fees of €87.5 million, which were documented in Part IV of KEK's tariff application, are the other pass through cost.

- The Public Supplier does not have any non-tariff revenues from third parties. As discussed in Part III of KEK's tariff application, however, the Import Power Subsidy expected from the Government of Kosovo (€13 million) was not included in the cost of wholesale power in order that the true cost is preserved. The subsidy is included as non-tariff revenues and KEK is proposing that this amount be allocated entirely to household customers as will be discussed in the next section.
- The bad debt allowance is shown as 5%, the requested allowance in accordance with the new pricing rule.

The 2012 Billing Determinants based on the sales contained in the Energy Balance are shown in Attachment A. When the current retail tariffs are applied to the billing determinants, the result is an amount for billed revenue of €194,254,000. In order to recover the requested MAR of €239,241,000, a tariff increase of €45.0 million (23 %) is required.

The €45 million tariff increase is almost entirely the result of two items:

1. The inclusion of the pre 2006 assets for cost recovery in accordance with the new pricing rules, which KEK supports. The impact of the inclusion of these assets in the determination of depreciation and return is approximately €25 million
2. In its 2011 tariff decision, ERO included €50 million of import costs offset by a subsidy of €27 million. In this tariff application, KEK is proposing an import cost of €57 million offset by the €13 million subsidy contained in the 2012 KCB. The result is that in 2012 there are a net of €44 million of import costs in tariffs as compared to €23 million last year, a difference of €21 million.

In fact, KEK has incorporated cost savings in Operation and maintenance costs in this tariff application along with a significant reduction in commercial losses. These cost savings are passed through to customers in the form of lower costs in the MAR.

Section IV of this document allocates the requested MAR to tariff classes in accordance with the unbundled costs shown in Table 3 and based on the methodology for determining cost reflective tariffs developed by KEK and presented to ERO in the 2011 tariff application.

**NOTE:** In the event that ERO determines that a 23% tariff increase is not socially acceptable, KEK has a proposal to utilize a very transparent "Smoothing" mechanism to prevent a major spike in prices. That proposal is discussed later in this application.

## IV. Allocation of MAR

Cost allocation involves the allocation of the Allowed Revenues to each of the customer tariff categories. The intent of this allocation is to, as fairly as possible; divide the total costs (Maximum Allowed Revenues) amongst the customer categories so that each customer category pays its fair share of the overall costs (Cost Reflective Tariffs).

Appendix B describes the allocation of the MAR to each of the tariff categories. KEK prepared a detailed analysis of the following components for unbundled retail tariffs:

- Wholesale price of electricity
- Transmission Services
- Distribution Use of System Tariffs by delivery voltage
- Retail Supplier Costs

Appendix B contains a detailed description of the methodology used to develop the unbundled tariffs and contains the calculation of each of the cost components for each tariff category. The methodology was presented to ERO in the 2011 tariff review process and it is applied in a similar manner for this application. The methodology can be summarized in the following steps:

- The starting point is the 2012 MAR of €239 million as detailed in Table 3.
- The wholesale price of electricity as detailed in Part III of the tariff application is utilized for transmission and distribution customers
- The DUOS tariffs as documented in Part IV of the tariff application are assigned based on the voltage level
- Transmission fees are computed for 220 KV, 110 KV, 35 KV, 10 KV, and 0.4 KV service levels
- Supply costs are allocated to retail voltage levels.
- The import subsidy is allocated to household customers only.

The reader is encouraged to review Appendix B for the detailed calculations. Table 4 contains a summary of the unbundled costs by voltage level

**Table 4 – Unbundled Costs by Voltage Level**

**Summary of Results of Unbundled Costs**

| | 220 | 110 KV | 35 KV | 10 KV | 0.4 KV | TOTAL |
|---|---|---|---|---|---|---|
| Billed MWH | 657,000 | 87,600 | 40,100 | 205,000 | 2,665,841 | 3,655,541 |
| Costs in Euro Cents per kWh | | | | | | |
| Energy Cost | 3.86 | 3.86 | 3.87 | 3.87 | 3.87 | |
| Transmission Costs | 0.09 | 0.18 | 0.25 | 0.29 | 0.37 | |
| DUOS Fees | 0.00 | 0.00 | 1.01 | 1.65 | 3.14 | |
| Supply Fees: | 0.00 | 0.00 | 0.04 | 0.06 | 0.45 | |
| Import Power Subsidy | | | | | (0.49) | |
| **Total Cost per Voltage Level** | **3.96** | **4.05** | **5.17** | **5.87** | **7.34** | **6.55** |
| **Cost Excluding subsidy** | **3.96** | **4.05** | **5.17** | **5.87** | **7.83** | |
| Revenue in thosands of Euros | 26,001 | 3,544 | 2,075 | 12,026 | 195,624 | **239,269** |

As the above table indicates, the unbundled tariffs recover the requested Allowed Revenues of €239 million when applied to the sales from the Energy Balance. The 0.4 KV tariff was further unbundled for each of the customer classes (large commercial, small commercial, public lighting, and households) due to the fact that the imported power subsidy was allocated only to the household class. That information was used in the development of cost reflective tariffs discussed in Section V below.

## V. Determining Cost Reflective Prices by Tariff Group

The unbundled costs are then compared to the current average tariff for each retail tariff class to determine the extent to which current tariffs are covering the cost to provide service. Table 5 displays the cost reflective tariff (in Euro cents per kWh) to the current average tariff by voltage level. It shows that the current 220, 110, 35, and 10 KV tariffs recover more than the cost (by 4 to 18%) while the 0.4 KV tariffs in total recover only 75% of the cost. When applied to the forecasted sales in the Energy Balance, we can determine the Euro amount of cost to serve compared to forecasted revenue as shown in the bottom of the table.

## Table 5 – Cost reflective Prices Compared to Current Prices

**Comparison of Cost Reflective Tariffs by voltage level to current tariffs:**

| | 220 | 110 KV | 35 KV | 10 KV | 0.4 KV | TOTAL |
|---|---|---|---|---|---|---|
| Cost Reflective | 3.96 | 4.05 | 5.17 | 5.87 | 7.34 | 6.55 |
| Current Average Tariffs | 4.23 | 4.20 | 6.13 | 6.54 | 5.51 | 5.31 |
| Current as % of Cost Reflective | 107% | 104% | 118% | 112% | 75% | 81% |
| | | | | | | |
| Billed MWH | 657,000 | 87,600 | 40,100 | 205,000 | 2,665,841 | 3,655,541 |
| Revenue at Cost Reflective Tariff | 26,001 | 3,544 | 2,075 | 12,026 | 195,624 | 239,269 |
| Revenue at Current Tariff | 27,791 | 3,678 | 2,458 | 13,411 | 146,916 | 194,254 |
| Difference | 1,790 | 134 | 383 | 1,385 | (48,708) | (45,015) |
| | 7% | 4% | 18% | 12% | -25% | -19% |

A further analysis was performed of the various tariff classes served at 0.4 KV. As shown in Table 6 below, Large Commercial customers pay slightly below cost, while Small Commercial and Public Lighting customers pay 10 to 11% above cost. The Household class, which consumes 56% of all retail energy (including transmission), pays only 65% of the cost to serve them. This is despite the fact that the entire Government subsidy for imported power (€13 million) was allocated to them. They still are €52 million short of covering their cost.

## Table 6 – Cost Reflective Prices Compared to Current Prices for 0.4KV Customer Classes

**Comparison of Cost reflective Tariff for 0.4 KV Customer Classes:**

| | Large Commercial | Small Commercial | Public Lighting | All Households | TOTAL |
|---|---|---|---|---|---|
| Cost Reflective | 7.83 | 7.83 | 7.83 | 7.18 | 7.34 |
| Current Average Tariffs | 7.61 | 8.66 | 8.60 | 4.64 | 5.51 |
| Current Tariff as % of Cost Reflective | 97% | 111% | 110% | 65% | 75% |
| | | | | | |
| Billed MWH | 223,567 | 401,214 | 12,400 | 2,028,661 | 2,665,842 |
| Revenue at Cost Reflective Tariff | 17,496 | 31,398 | 970 | 145,759 | 195,624 |
| Revenue at Current Tariff | 17,015 | 34,762 | 1,067 | 94,072 | 146,916 |
| Difference | (481) | 3,364 | 97 | (51,687) | (48,708) |
| | -3% | 11% | 10% | -35% | -25% |

This information will be used to make recommended changes to each tariff class.

### VI. Recommended Adjustments by Tariff Group

The objective of the tariff adjustment should be to move each tariff class closer to the cost to serve that class while recovering the total MAR. The problem in Kosovo is that the prices for the largest tariff class, households, have been artificially low and prior tariff changes did not correct the situation, but rather made it worse. If Kosovo expects to meet the target specified in the Law on the Energy Regulator which specifies that "Cross subsidies shall be rebalanced gradually until 31 December 2014, from which point onwards there shall be no cross subsidies", then household tariffs must be increased by a much higher percentage than the overall level of cost increases. A good objective would be to move household tariffs 12% closer to the cost reflective level each of the next 3 years (2012, 2013, and 2014) since they are currently covering only 65% of costs.

Table 7 displays one method to recover the total MAR of €239 million while eliminating some of the cross subsidy to the household customers. It requires that household tariffs be increased approximately 50% more than the overall percentage increase.

**Table 7 – Methodology to Recover 2012 Proposed MAR**

| Tariff Category | Revenue at Current Tariff | Cost Reflective Revenue | Cost Recovery Index | Proposed Increase | Proposed 2012 Revenue | Proposed Recovery Index |
|---|---|---|---|---|---|---|
| 220kV | 27,791 | 26,001 | 1.07 | 10% | 30,570 | 1.18 |
| 110 KV | 3,678 | 3,544 | 1.04 | 10% | 4,046 | 1.14 |
| 35 KV | 2,458 | 2,075 | 1.18 | 10% | 2,704 | 1.30 |
| 10 KV | 13,411 | 12,026 | 1.12 | 11% | 14,886 | 1.24 |
| Large Commercial | 17,015 | 17,496 | 0.97 | 20% | 20,418 | 1.17 |
| Small Commercial | 34,762 | 31,398 | 1.11 | 15% | 39,976 | 1.27 |
| Household - TOU | 86,446 | 135,644 | 0.64 | 34% | 115,535 | 0.85 |
| Household - No TOU | 6,645 | 8,839 | 0.75 | 30% | 8,639 | 0.98 |
| Household - Unmetered | 981 | 1,269 | 0.77 | 30% | 1,275 | 1.01 |
| Public Lighting | 1,067 | 970 | 1.10 | 14% | 1,216 | 1.25 |
| **Total** | **194,254** | **239,262** | **0.81** | | **239,265** | **1.00** |
| **Required Increase** | | **45,008** | | | | |
| | | **23.2%** | | | | |

KEK recognizes that ERO may find it socially unacceptable to increase tariffs by 23% overall and household tariffs by 34%. In the event that the total 2012 MAR cannot be included in retail tariffs, KEK proposes that ERO utilize a very transparent "Smoothing" mechanism to prevent a major spike in prices. A smoothing concept is included in the new pricing rules, however, the method used to smooth in highly developed countries is not appropriate in Kosovo where prices are so distorted.

KEK proposes that smoothing be accomplished by having each licensee "Defer" a portion of its Allowed Return from 2012 to future years. This proposal should not be viewed as setting a precedent for future tariff reviews. The deferred amount would be automatically added to the MAR in 2014 and 2015 along with the cost of short term borrowing (10 %). Proposed deferral amounts are as follows in the event that ERO determines that the €45 million tariff increase (23 %) should be reduced to €23.6 million (12 %):

- The Public Generator could defer approximately 50% of its €18.7 million return producing a reduction of €10 million. Since the return of the mine is primarily devoted to servicing interest payments, it will not be able to defer any return
- The DSO could defer approximately 50% of its €9.8 million return producing a reduction of €5.0 million.
- The PES could defer approximately 50% of its €10.3 million Retail Supply Margin producing a reduction of €5.0 million.

In addition to the €20 million cost deferral, ERO may consider an additional reduction in commercial losses (from 15.6% to 15%) which would allow additional energy for household sales. Table 8 below shows that the financial impact of the cost deferrals and the loss reductions on the MAR total €21.4 million.

**Table 8 – Effect of Cost Deferrals and Loss Reduction on 2012 MAR**

| **Cost Deferrals** | | **Percent** | |
|---|---|---|---|
| **Item** | **Amount** | **Deferred** | **Deferral** |
| Generator Return | 18,706 | 53% | 10,000 |
| Network Return | 9,797 | 51% | 5,000 |
| Supplier Retail Margin | 10,254 | 49% | 5,000 |
| **TOTAL COST DEFERRALS** | | | **20,000** |
| | | | |
| **Other Adjustments** | | | |
| Reduce Commercial Loss to 15%: | | | |
| Increased Household Sales (MWH) | | 28,021 | |
| Average Household Price (€/MWH) | | 50 | |
| **Increased Revenue** | | | **1,401** |
| | | | |
| **TOTAL REDUCTION IN MAR** | | | **21,401** |
| | | | |
| **Revised MAR** | | | **217,861** |

The above reductions of €21.4 million would reduce the required tariff increase from €45 million (23 %) to €23.6 million (12 %). The method to recover the revised MAR of €218 million while eliminating some of the cross subsidy to the household customers is shown in Table 9. It requires that household tariffs be increased approximately 50% more than the overall percentage increase.

**Table 9 – Methodology to Recover the Revised MAR**

| **Tariff Category** | **Revenue at Current Tariff** | **Cost Reflective Revenue** | **Cost Recovery Index** | **Proposed Increase** | **Proposed 2012 Revenue** | **Proposed Recovery Index** |
|---|---|---|---|---|---|---|
| 220kV | 27,791 | 23,677 | 1.17 | 5% | 29,181 | 1.23 |
| 110 KV | 3,678 | 3,227 | 1.14 | 5% | 3,862 | 1.20 |
| 35 KV | 2,458 | 1,889 | 1.30 | 5% | 2,581 | 1.37 |
| 10 KV | 13,411 | 10,951 | 1.22 | 5% | 14,082 | 1.29 |
| Large Commercial | 17,015 | 15,932 | 1.07 | 10% | 18,717 | 1.17 |
| Small Commercial | 34,762 | 28,591 | 1.22 | 10% | 38,238 | 1.34 |
| Household - TOU | 86,446 | 123,518 | 0.70 | 17% | 101,142 | 0.82 |
| Household - No TOU | 6,645 | 8,049 | 0.83 | 17% | 7,775 | 0.97 |
| Household - Unmetered | 981 | 1,155 | 0.85 | 15% | 1,128 | 0.98 |
| Public Lighting | 1,067 | 883 | 1.21 | 10% | 1,174 | 1.33 |
| **Total** | **194,254** | **217,872** | **0.89** | | **217,878** | **1.00** |
| **Required Increase** | | **23,618** | | | | |
| | | **12.2%** | | | | |

In the event that the overall tariff increase is only 12%, if household tariffs are increased by 17%, they can move from approximately 70% of cost to 82% of cost, which would represent good progress toward the goal of eliminating the cross subsidies by the end of 2014.

KEK is aware that even the 12% increase may present a social problem and a single digit percent increase such as 9% may be the upper limit. In that event, the only feasible option is for the Government to provide a subsidy of €7 million for the specific purpose of subsidizing household

consumers. Table 10 shows the impact of reducing the MAR from €23.6 million to €16.6 million and reflecting the entire €7 million in the household cost reflective tariff.

**Table 10 – Methodology to Recover a 9% Retail Tariff Increase**

| Tariff Category | Revenue at Current Tariff | Cost Reflective Revenue | Cost Recovery Index | Proposed Increase | Proposed 2012 Revenue | Proposed Recovery Index |
|---|---|---|---|---|---|---|
| 220kV | 27,791 | 23,677 | 1.17 | 5% | 29,181 | 1.23 |
| 110 KV | 3,678 | 3,227 | 1.14 | 5% | 3,862 | 1.20 |
| 35 KV | 2,458 | 1,889 | 1.30 | 5% | 2,581 | 1.37 |
| 10 KV | 13,411 | 10,951 | 1.22 | 5% | 14,082 | 1.29 |
| Large Commercial | 17,015 | 15,932 | 1.07 | 9% | 18,546 | 1.16 |
| Small Commercial | 34,762 | 28,591 | 1.22 | 9% | 37,891 | 1.33 |
| Household - TOU | 86,446 | 116,518 | 0.74 | 10.1% | 95,177 | 0.82 |
| Household - No TOU | 6,645 | 8,049 | 0.83 | 10.1% | 7,316 | 0.91 |
| Household - Unmetered | 981 | 1,155 | 0.85 | 9% | 1,069 | 0.93 |
| Public Lighting | 1,067 | 883 | 1.21 | 9% | 1,163 | 1.32 |
| **Total** | **194,254** | **210,872** | **0.92** | | **210,867** | **1.00** |
| **Required Increase** | | **16,618** | | | | |
| | | **9%** | | | | |

**Proposed Adjustments to Tariffs**

This tariff review using significantly different pricing rules must be accomplished in a relatively short time given that there are only about 75 calendar days prior to the effective date of the new retail tariffs. That means there will be no time to significantly redesign the structure of individual retail tariffs. KEK is proposing, however, that the adjustments can be strategically allocated in order to meet the requirements of Article 16 of the PES Pricing Rule regarding cost reflectivity and preserving the price signals. KEK proposes that the adjustments for each tariff be made in the following manner:

**220 KV Tariff** – Since this tariff was recently designed to recover 50% of the cost of supply in the demand charge and 50% in the energy charge, the adjustment should be allocated in the same manner

**110 KV Tariff** - This tariff currently recovers approximately 25% of the cost in the demand charge and the remainder in energy charges. Given that 85% of the cost of generation in Kosovo is considered by ERO to be fixed (see the Generator Tariff Application), KEK proposes that 50% of the increase be included in the demand charge. The remainder should be in the energy charges. Since the cost of generation is primarily fixed and the PES pays the same price regardless of time of day, KEK proposes that the adjustment to the energy charge be made entirely to the off peak (night) periods. Given that the summer price of energy is lower than the cost of wholesale power as is the winter night energy price, those should be increased as well.

**35 KV Tariff** - Similar to the 110 KV tariff, 50% of the increase should be included in the demand charge and the remainder in the summer energy prices.

**10 KV Tariff** - Similar to the 110 KV tariff, 50% of the increase should be included in the demand charge and the remainder in the summer energy prices.

**Large Commercial (0.4KV) Tariff** – These customers have reliable demand meters, therefore 50% of the increase should be included in the demand charge and the remainder in the summer energy prices.

**Small Commercial Tariff** – These customers do not have demand meters, therefore, price signals must be reflected in the energy charges. There is a serious problem with the recording of time of use by most of the meters for these customers. Since they do not have reliable electronic meters with battery backup, the time of use is random at best. This is partially due to

load shedding and partially due to the fact that customers can tamper with the time clocks which are not secure. Given (1) the inaccuracy of the time clocks for these customers, and (2) the lack of time differentiation in the wholesale energy price, KEK recommends that the entire increase be allocated to the night tariff.

**Household Time of Use Tariff** – As discussed for small commercial customers, there is a serious problem with the recording of time of use by most of these customers. Since they do not have reliable electronic meters with battery backup, the time of use is random at best. This is partially due to load shedding and partially due to the fact that customers can tamper with the time clocks which are not secure. Given (1) the inaccuracy of the time clocks for these customers, and (2) the lack of time differentiation in the wholesale energy price, KEK recommends that the entire increase be allocated to the night tariff, which in most cases is far below the cost of wholesale energy. At this time, KEK is not recommending any changes to the three block structure of the household tariff, although it is an overly complex scheme (three blocks, each with a day price and a night price) that is not used in most other countries. That situation can be addressed in future tariff reviews.

**Household Tariff (no TOU)** – Since the Summer prices are generally below the cost of wholesale energy, KEK recommends that the entire increase be allocated to summer prices.

**Household Tariff (unmetered)** – KEK has virtually eliminated this tariff class and has been providing meters for these customers. The overall percent increase should be made to each of the three tariffs.

**Public Lighting** – The proposed tariff increase should be made in the energy price.

KEK will be providing the detailed tariff design to ERO in accordance with the above guidelines. This will be done when ERO determines the MAR during the consultation process.

## Appendix A – 2012 Billing Determinants and Revenue at Current Tariffs

| Tariff Group | Billing Determinants | | 2012 | Tariffs | |
|---|---|---|---|---|---|
| | Description of Measured Unit | Monthly Billing Unit | Billing Determinants | Existing | Revenue at Existing Tariff |
| 220kV HV Industrial | **Customer Bills** | **€** | **12** | € 167.67 | € 2,012 |
| | KW | €/kW | 1,080,000 | € 13.26 | € 14,320,800 |
| | ***Summer*** | | | | |
| | Peak | €/kWh | 209,320,200 | € 0.0205 | € 4,291,064 |
| | Off-Peak | €/kWh | 125,618,400 | € 0.0205 | € 2,575,177 |
| | ***Winter*** | | | | |
| | Peak | €/kWh | 201,304,800 | € 0.0205 | € 4,126,748 |
| | Off-Peak | €/kWh | 120,756,600 | € 0.0205 | € 2,475,510 |
| | Varhr | €/kVARh | | | € 0 |
| | ***Total Tariff Category Revenues*** | | | | **€ 27,791,312** |
| 0 HV Industrial 110kV | **Customer Bills** | **€** | **24** | € 83.83 | € 2,012 |
| | KW | €/kW | 187,208 | € 5.59 | € 1,046,493 |
| | ***Summer*** | | | | |
| | Peak | €/kWh | 27,862,799 | € 0.0192 | € 534,966 |
| | Off-Peak | €/kWh | 23,724,394 | € 0.0158 | € 374,845 |
| | ***Winter*** | | | | |
| | Peak | €/kWh | 19,721,141 | € 0.0649 | € 1,279,902 |
| | Off-Peak | €/kWh | 16,276,667 | € 0.0270 | € 439,470 |
| | Varhr | €/kVARh | | | € 0 |
| | ***Total Tariff Category Revenues*** | | | | **€ 3,677,688** |
| 1 (35 kV) | **Customer Bills** | **€** | **318** | € 11.08 | € 3,523 |
| | KW | €/kW | 90,994 | € 5.81 | € 528,675 |
| | ***Summer*** | | | | |
| | Peak | €/kWh | 11,838,150 | € 0.0294 | € 348,042 |
| | Off-Peak | €/kWh | 7,946,945 | € 0.0265 | € 210,594 |
| | ***Winter*** | | | | |
| | Peak | €/kWh | 12,307,420 | € 0.0679 | € 835,674 |
| | Off-Peak | €/kWh | 8,007,485 | € 0.0359 | € 287,469 |
| | Varhr | | 37,032,632 | € 0.0066 | € 244,415 |
| | ***Total Tariff Category Revenues*** | | | | **€ 2,458,392** |
| 2 (10 kV) | **Customer Bills** | **€** | **2,664** | € 4.58 | € 12,201 |
| | KW | €/kW | 555,111 | € 5.01 | € 2,781,106 |
| | ***Summer*** | | | | |
| | Peak | €/kWh | 67,632,974 | € 0.0339 | € 2,292,758 |
| | Off-Peak | €/kWh | 29,569,701 | € 0.0309 | € 913,704 |
| | ***Winter*** | | | | |
| | Peak | €/kWh | 74,930,829 | € 0.0761 | € 5,702,236 |
| | Off-Peak | €/kWh | 32,866,496 | € 0.0410 | € 1,347,526 |
| | Varhr | | 54,763,180 | € 0.0066 | € 361,437 |
| | ***Total Tariff Category Revenues*** | | | | **€ 13,410,968** |
| 3 Category I (0.4 kV) **Large Commercial** | Multi-Tariff | | | | |
| | **Customer Bill** | **€** | **17,596** | € 2.58 | € 45,398 |
| | KW | €/kW | 990,586 | € 2.92 | € 2,892,511 |
| | **Summer** | | | | |
| | Peak | €/kWh | 82,769,391 | € 0.0469 | € 3,881,884 |
| | Off-Peak | €/kWh | 28,367,024 | € 0.0443 | € 1,256,659 |
| | **Winter** | | | | |
| | Peak | €/kWh | 82,081,341 | € 0.0845 | € 6,935,873 |
| | Off-Peak | €/kWh | 30,348,900 | € 0.0533 | € 1,617,596 |
| | Varhr | €/kVARh | 58,341,599 | € 0.0066 | € 385,055 |
| | ***Total Tariff Category Revenues*** | | | | **€ 17,014,977** |

| Tariff Group | Billing Determinants | | 2012 | Tariffs | |
|---|---|---|---|---|---|
| | Description of Measured Unit | Monthly Billing Unit | Billing Determinants | Existing | Revenue at Existing Tariff |
| 4 Catergory II 1 Tariff | Single Tariff | | | | |
| | **Customer Bill** | **€** | **207,471** | € 2.92 | € 605,815 |
| | **Summer** | €/kWh | 20,500,239 | € 0.0673 | € 1,379,666 |
| | **Winter** | €/kWh | 27,035,490 | € 0.1041 | € 2,814,395 |
| 4 Category II (0.4 kV) 2 Tariff **Small Commercial** | **Customer Bills** | | **567,887** | € 2.92 | € 1,658,230 |
| | KW | €/kW | | | |
| | ***Summer*** | | | | |
| | Peak | €/kWh | 81,725,068 | € 0.0821 | € 6,709,628 |
| | Off-Peak | €/kWh | 80,909,641 | € 0.0410 | € 3,317,295 |
| | ***Winter*** | | 0 | | |
| | Peak | €/kWh | 100,756,132 | € 0.1253 | € 12,624,743 |
| | Off-Peak | €/kWh | 90,286,773 | € 0.0626 | € 5,651,952 |
| | ***Total Tariff Category Revenues (1 Tariff and 2 Tariff)*** | | | | **€ 34,761,725** |
| 5 Domestic 2-rate mtr. | **Customer Bill** | **€** | **3,866,825** | € 2.08 | € 8,042,996 |
| | < 200 kWh | | | | |
| | ***Summer*** | | | | |
| | Peak | €/kWh | 149,787,670 | € 0.0333 | € 4,987,929 |
| | Off-Peak | €/kWh | 164,292,672 | € 0.0166 | € 2,727,258 |
| | ***Winter*** | | | | |
| | Peak | €/kWh | 146,230,578 | € 0.0464 | € 6,785,099 |
| | Off-Peak | €/kWh | 161,146,207 | € 0.0233 | € 3,754,707 |
| | 200-600 kWh | | | | |
| | ***Summer*** | | | | |
| | Peak | €/kWh | 166,370,025 | € 0.0460 | € 7,653,021 |
| | Off-Peak | €/kWh | 211,532,455 | € 0.0231 | € 4,886,400 |
| | ***Winter*** | | | | |
| | Peak | €/kWh | 182,100,841 | € 0.0643 | € 11,709,084 |
| | Off-Peak | €/kWh | 232,402,159 | € 0.0322 | € 7,483,350 |
| | > 600 kWh | | | | |
| | ***Summer*** | | | | |
| | Peak | €/kWh | 68,767,439 | € 0.0668 | € 4,593,665 |
| | Off-Peak | €/kWh | 90,618,311 | € 0.0335 | € 3,035,713 |
| | ***Winter*** | | | | |
| | Peak | €/kWh | 131,156,377 | € 0.0933 | € 12,236,890 |
| | Off-Peak | €/kWh | 183,476,203 | € 0.0466 | € 8,549,991 |
| | ***Total Tariff Category Revenues*** | | | | **€ 86,446,103** |

| Tariff Group | Billing Determinants | | 2012 | Tariffs | |
|---|---|---|---|---|---|
| | Description of Measured Unit | Monthly Billing Unit | Billing Determinants | Existing | Revenue at Existing Tariff |
| 6 Domestic 1 rate mtr. | **Customer Bill** | **€** | **503,064** | € 2.08 | € 1,046,373 |
| | < 200 kWh | | | | |
| | **Summer** | €/kWh | 30,488,902 | € 0.0296 | € 902,471 |
| | **Winter** | €/kWh | 30,629,841 | € 0.0414 | € 1,268,075 |
| | 200-600 kWh | | | | |
| | **Summer** | €/kWh | 22,723,465 | € 0.0410 | € 931,662 |
| | **Winter** | €/kWh | 24,452,911 | € 0.0573 | € 1,401,152 |
| | > 600 kWh | | | | |
| | **Summer** | €/kWh | 5,786,837 | € 0.0596 | € 344,895 |
| | **Winter** | €/kWh | 9,028,915 | € 0.0831 | € 750,303 |
| | ***Total Tariff Category Revenues*** | | | | **€ 6,644,932** |
| 7 Domestic Un-metered | **Customer Bill** | **€** | **18,701** | € 21.50 | € 402,072 |
| | < 400 kWh | | | | |
| | **Summer** | €/kWh | 3,077,527 | | |
| | **Winter** | €/kWh | 4,095,191 | | |
| | **Customer Bill** | **€** | **12,525** | € 38.92 | € 487,473 |
| | 400-800 kWh | | | | |
| | **Summer** | €/kWh | 3,934,300 | | |
| | **Winter** | €/kWh | 4,891,116 | | |
| | **Customer Bill** | **€** | **1,388** | € 65.58 | € 91,025 |
| | > 800 kWh | | | | |
| | **Summer** | €/kWh | 735,609 | | |
| | **Winter** | €/kWh | 935,450 | | |
| | ***Total Tariff Category Revenues*** | | | | **€ 980,570** |
| 8 Public Ltg | **Customer Bills** | **€** | **7,886** | € 2.92 | € 23,027 |
| | **Summer** | €/kWh | 6,200,000 | € 0.0842 | € 522,040 |
| | **Winter** | €/kWh | 6,200,000 | € 0.0842 | € 522,040 |
| | ***Total Tariff Category Revenues*** | | | | **€ 1,067,107** |
| **Total Annual Revenues for all Tariff Categories** | | | | | **€ 194,253,773** |

## Appendix B – Allocation of MAR to Tariff Categories

**UNBUNDLING THE ELECTRICITY COSTS** **PAGE 1**

(Euro amounts in thousands, except per unit values)

| | Mines | Generation | Network | Supply | TOTAL |
|---|---|---|---|---|---|
| Operating and Maintenance Expense | 37,474 | 27,221 | 14,640 | 10,707 | 90,042 |
| Depreciation | 11,775 | 18,706 | 5,627 | 1,006 | 37,114 |
| Return | 10,380 | 18,778 | 9,797 | | 38,955 |
| Retail Margin | | | | 10,254 | 10,254 |
| Working Capital | | | | 1,365 | 1,365 |
| Imports | | | | 57,459 | 57,459 |
| Import Subsidy | | | | (13,000) | (13,000) |
| Hydro Purchases | | | | 4,500 | 4,500 |
| Lignite Royalty | 2,030 | | | | 2,030 |
| License Fees | | 521 | | | 521 |
| Allocated H.Q. Costs | 5,198 | 2,573 | 1,821 | 1,871 | 11,463 |
| Energy for Internal Consumption | | | | 1,303 | |
| Bad Debt Expense | | | | 11,962 | 11,962 |
| Exports | | | | (5,094) | (5,094) |
| Other Operating Income | | | | | 0 |
| KOSTT Fees to KEK | | 3,300 | | 11,300 | 14,600 |
| Sale of Energy to DSO for Losses | | | 58,756 | (58,756) | 0 |
| Sale of Energy to Mine for Operation | 6,549 | | | (6,549) | 0 |
| Energy to Generation for Aux Power | | 8,663 | | (8,663) | 0 |
| Sale of Energy to KOSTT for Losses | | | | (4,955) | (4,955) |
| Sale of Energy for Internal Consumption | | | | (1,303) | |
| Income from third parties | (1,500) | (300) | (2,800) | | (4,600) |
| Adjust for 2011 underspent CAPEX | (1,251) | (710) | (363) | (35) | (2,359) |
| Tariff Balancing Account | | | | (11,016) | (11,016) |
| **TOTAL 2012 Allowed Revenues** | **70,655** | **78,752** | **87,478** | **2,356** | **239,241** |

| | | | | | |
|---|---|---|---|---|---|
| **Transfer Price - Mines:** | | | | | |
| Allowed Revenues Mine | 70,655 | | | | |
| Coal Utilized for KEK Generation | 7,688 | | | | |
| Coal Cost (Euros/ton) | 9.19 | | | | |
| Cost Transferred to Generation | (70,655) | 70,655 | | | 0 |
| **Unbundled - Mine allocated** | **0** | **149,407** | **87,478** | **2,356** | **239,241** |

| | | | | | |
|---|---|---|---|---|---|
| **Transfer Price - Generation:** | | | | | |
| Allowed Revenues Generation | | 149,407 | | | |
| Net Output of Kosovo A and B (7) | | 5,022,500 | | | |
| KEK Generation Cost (Euros/MWH) | | 29.75 | | | |
| Energy Sold to Supply | | (149,407) | | 149,407 | 0 |
| **Unbundled - Generation allocated** | **0** | **0** | **87,478** | **151,763** | **239,241** |

## RESULTING TARIFF COMPONENTS

**Distribution Use of System:**

| | | | |
|---|---|---|---|
| Allowed Revenues - Network | | **87,478** | (equals cell G46) |
| Metered Distribution Sales (MWH) | | 2,887,750 | |
| Composite DUOS Tariff (Euro cents/kWh) | | 3.03 | |
| DUOS Tariffs by voltage, per separate ananalysis: | | | |
| | 35 KV | 1.01 | Euro cents/kWh |
| | 10 KV | 1.65 | Euro cents/kWh |
| | 0.4 KV | 3.14 | Euro cents/kWh |

**Wholesale Power Cost:**

| | Quantity (MWH) | Price (€/MWH) | Amount (€ 000) | | |
|---|---|---|---|---|---|
| Purchase from KEK Generation | 5,022,500 | 29.75 | 149,407 | Equals Amount in Allowed Revenues | |
| Imports (without Subsidy) | 820,800 | 70.00 | 57,456 | | |
| Purchased from Ujmani | 82,000 | 27.50 | 2,255 | | |
| Exports | (169,800) | 30.00 | (5,094) | | |
| Energy to North Kosovo | (203,700) | | | | |
| **Wholesale Power Cost (Domestic)** | **5,551,800** | **36.75** | **204,024** | Prices including Retail Margin | **38.59** |
| Purchase from Hydro (Distribution) | 51,522 | 43.60 | 2,246 | | |
| **Total Power Cost for Distribution** | **5,603,322** | **36.81** | **206,270** | | **38.65** |

**Supply Costs:**

| | | | | |
|---|---|---|---|---|
| I. Power Cost excluding Subsidy and including Retail Margin | | 216,584 | | |
| Less: Sales to Distribution for losses | | (58,756) | | |
| Energy Sales to KOSTT for Losses | | (4,955) | | |
| Energy Sales to Mine (Wholesale Cost) | | (4,290) | | |
| Energy Sales to Generation (Wholesale cost) | | (5,980) | | |
| Internal Consumption | | (1,303) | | |
| **Net Energy Cost chargable to Regulated Customers** | | **141,300** | **38.65** | Euros per MWH |
| Sale to Transmission customers | | 28,732 | | |
| Sale to Distribution customers | | 112,516 | | |
| II. Supply Operations Costs: | | | | |
| Operating Expense | | 10,707 | | |
| Depreciation | | 1,006 | | |
| Allocated H.Q. Costs | | 1,871 | | |
| Bad Debt Expense | | 11,962 | | |
| Working Capital | | 1,365 | | |
| Internal consumption | | 1,303 | | |
| Margin earned on Internal Sales | | (4,942) | | |
| Adjustments (including Tariff Balancing Account) | | (11,051) | | |
| **Supply Operations Cost chargable to Regulated Customers** | | **12,221** | **0.33** | Euro cents/kWh |
| **Supply Costs to be Recovered by Supply from Regulated Customers** | | | **153,521** | |
| **Transmission Fees: Pass Through From KOSTT** | | | | |
| Total Costs Charged to Public Supplier | | | **11,300** | |
| Sales to Regulated Customers (MWH) | | 3,655,541 | | |
| Cost per kWh sold (Euro cents/kWh) | | 0.31 | | |
| **Import Subsidy** | | | **(13,000)** | |
| Subsidy Applied to all 0.4KV Customers | | | **(0.49)** | |
| Subsidy Applied to Household Customers Only | | | **(0.64)** | Euro cents/kWh |
| **Total Allowed Revenues to be Recovered from Regulated Customers** | | | | **239,299** |

## Summary of Results of Unbundled Costs

| | 220 | 110 KV | 35 KV | 10 KV | 0.4 KV | TOTAL |
|---|---|---|---|---|---|---|
| Billed MWH | 657,000 | 87,600 | 40,100 | 205,000 | 2,665,841 | 3,655,541 |
| Costs in Euro Cents per kWh | | | | | | |
| Energy Cost | 3.86 | 3.86 | 3.87 | 3.87 | 3.87 | |
| Transmission Costs | 0.09 | 0.18 | 0.25 | 0.29 | 0.37 | |
| DUOS Fees | 0.00 | 0.00 | 1.01 | 1.65 | 3.14 | |
| Supply Fees: | 0.00 | 0.00 | 0.04 | 0.06 | 0.45 | |
| Import Power Subsidy | | | | | (0.49) | |
| **Total Cost per Voltage Level** | **3.96** | **4.05** | **5.17** | **5.87** | **7.34** | **6.55** |
| **Cost Excluding subsidy** | **3.96** | **4.05** | **5.17** | **5.87** | **7.83** | |
| Revenue in thosands of Euros | 26,001 | 3,544 | 2,075 | 12,026 | 195,624 | **239,269** |

Requested Allowed Revenues for 2012 **239,241**

Above result recovers Allowed Revenue within: 0.01%

**Comparison of Cost Reflective Tariffs by voltage level to current tariffs:**

| | 220 | 110 KV | 35 KV | 10 KV | 0.4 KV | TOTAL |
|---|---|---|---|---|---|---|
| Cost Reflective | 3.96 | 4.05 | 5.17 | 5.87 | 7.34 | 6.55 |
| Current Average Tariffs | 4.23 | 4.20 | 6.13 | 6.54 | 5.51 | 5.31 |
| Current as % of Cost Reflective | 107% | 104% | 118% | 112% | 75% | 81% |
| | | | | | | |
| Billed MWH | 657,000 | 87,600 | 40,100 | 205,000 | 2,665,841 | 3,655,541 |
| Revenue at Cost Reflective Tariff | 26,001 | 3,544 | 2,075 | 12,026 | 195,624 | 239,269 |
| Revenue at Current Tariff | 27,791 | 3,678 | 2,458 | 13,411 | 146,916 | 194,254 |
| Difference | 1,790 | 134 | 383 | 1,385 | (48,708) | (45,015) |
| | 7% | 4% | 18% | 12% | -25% | -19% |

**Comparison of Cost reflective Tariff for 0.4 KV Customer Classes:**

| | Large Commercial | Small Commercial | Public Lighting | All Households | TOTAL |
|---|---|---|---|---|---|
| Cost Reflective | 7.83 | 7.83 | 7.83 | 7.18 | 7.34 |
| Current Average Tariffs | 7.61 | 8.66 | 8.60 | 4.64 | 5.51 |
| Current Tariff as % of Cost Reflective | 97% | 111% | 110% | 65% | 75% |
| | | | | | |
| Billed MWH | 223,567 | 401,214 | 12,400 | 2,028,661 | 2,665,842 |
| Revenue at Cost Reflective Tariff | 17,496 | 31,398 | 970 | 145,759 | 195,624 |
| Revenue at Current Tariff | 17,015 | 34,762 | 1,067 | 94,072 | 146,916 |
| Difference | (481) | 3,364 | 97 | (51,687) | (48,708) |
| | -3% | 11% | 10% | -35% | -25% |

## Allocation of Transmission Fees to Voltage Levels

| | | | |
|---|---|---|---|
| Total Allowed Revenues for KOSTT Fees for Public Supplier | | | **11,300** |
| KEK Estimate of Kostt Fees: | Load (MW / MWH) | Price | Amount (000 Euros) |
| 220 KV Customer: | | | |
| TUOS Fee | 90 | 3.225 | 290 |
| SO Fee | 657,000 | 0.483 | 317 |
| MO Fee | 657,000 | 0.015 | 10 |
| **Total 220 KV Customer** | | | **617** |
| **Expressed in cents / kWh Billed** | | | **0.09** |
| 110 KV Customers: | | | |
| TUOS Fee | 17.4 | 6.65 | 116 |
| SO Fee | 87,600 | 0.483 | 42 |
| MO Fee | 87,600 | 0.015 | 1 |
| **Total 110 KV Customers** | | | **159** |
| **Expressed in cents / kWh Billed** | | | **0.18** |
| Distribution System | | Estimated KOSTT Fees | |
| TUOS Fee | 1009 | 6.90 | 6,960 |
| SO Fee | 4,807,200 | 0.500 | 2,404 |
| MO Fee | 4,807,200 | 0.015 | 72 |
| Reconciliation of System peak | | | 1,087 |
| **Total Distribution Customers** | | | **10,523** |
| **Total Regulated Customers** | | | **11,300** |

**Allocation of KOSTT Fee to Distribution Customers:**

| | **35 KV** | **10 KV** | **0.4 KV** | **Total** |
|---|---|---|---|---|
| Billed MWH | 40,100 | 205,000 | 2,665,841 | 2,910,941 |
| Technical Losses | 833 | 21,652 | 774,455 | 796,940 |
| Commercial Losses | 2,005 | 20,500 | 700,744 | 723,249 |
| Totals: | 42,938 | 247,152 | 4,141,040 | 4,431,130 |
| Percent of Total | 0.97% | 5.58% | 93.45% | 100.00% |
| KOSTT Fees to allocate to Distribution | 102 | 587 | 9,834 | 10,523 |
| **Fee in cents per kWh Billed** | **0.25** | **0.29** | **0.37** | **0.36** |

## Allocation of Supply Costs to Voltage Levels

**Supply Operations Cost chargable to Regulated Customers** **12,221**

| | **220/110 KV** | **35 KV** | **10 KV** | **0.4 KV** | **Total** |
|---|---|---|---|---|---|
| Billed MWH | 744,600 | 40,100 | 205,000 | 2,665,841 | 3,655,541 |
| Number of Customers | 3 | 15 | 222 | 420,000 | 420,240 |
| Estimated cost / customer / month | 1,000 | 100 | 50 | 2.39 | |
| **Total Amount per Year (000 Euros)** | **36** | **18** | **133** | **12,040** | **12,227** |
| Expressed in cents / kWh Billed | 0.00 | 0.04 | 0.06 | 0.45 | 0.33 |