



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

Electricity Tariff Review 2008

CONSULTATION PAPER

DISCLAIMER

This Consultation Paper has been prepared by ERO in order to obtain comments and views from stakeholders. It is not a decision document and should not be considered to represent a decision by ERO.

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Summary

Introduction

The Energy Regulatory Office (ERO) is currently conducting a review of retail electricity tariffs to be charged by KEK JSC and transmission charges applied by KOSTT JSC¹ from 1st April 2008. This Consultation Paper is published as an opportunity for stakeholders to provide comments on these applications, prior to ERO issuing its decision on the approved tariffs. **At this stage, ERO has taken no decision on the tariffs which will be approved. The proposals by ERO set out in this paper are preliminary only and provided solely as a basis for comment by stakeholders.**

The deadline for the receipt of comments in response to this Consultation Paper is 20th March 2008. Approved new tariffs will take effect from 1st April 2008.

Preliminary tariff applications were submitted by KEK and KOSTT in December 2007. ERO has undertaken an extensive analysis of these applications. This has included identifying data errors and inconsistencies and an assessment of the reasonableness of proposed costs and requests for the justification or amendment of these. As a result of this analysis, both KEK and KOSTT have made a number of significant downward adjustments to their original applications. The applications presented in this Consultation Paper are the amended applications following the completion of these adjustments.

Allowed revenues

Requested allowed revenues for the industry as a whole in 2008 are approximately 13% above 2007 allowed levels. Requested power purchase costs increase by 18%, other requested KEK costs by 10% and requested costs for KOSTT (excluding transmission losses) by 16%.

Import subsidies and revenues from exports of electricity and sales to eligible customers are deducted from these requested allowed revenues to determine the allowed revenues to be recovered from regulated customers. Large increases in import subsidies (of €10 million from 2007 forecast levels) and sales to eligible customers are projected for 2008. As a result, requested revenues to be recovered from regulated customers are virtually unchanged from 2007 allowed levels. Forecast sales volumes to regulated customers are 15% above actual 2007 sales.

The resulting requested average unit cost to be recovered from regulated customers in 2008 is €c5.51/kWh, 10% above the average unit cost allowed for 2007.

ERO proposes to make a number of adjustments to the allowed revenues requested by KEK and KOSTT. These include:

- Not allowing capital expenditures for which funding is not committed (either from the Kosova Consolidated Budget or from other sources). This includes disallowing all requested capital expenditures related to KEK's headquarters and supply division.

¹ Kosovo Independent Operator of the transmission and trade electricity system

Summary

- Reducing allowed non-technical distribution losses (those largely due to theft and data errors) from the 22% actually recorded in 2007 to 20%, with further reductions expected in future.

The result is to reduce the proposed required average unit costs to be charged to regulated customers in 2008 to €c5.27/kWh, 5.3% above the level approved for 2007.

Retail tariffs

KEK has proposed a number of changes to the retail tariff structure. These include:

- Increasing customer (fixed) charges for larger customers, who cost more to service.
- Eliminating the current time-of-day tariff for domestic and small commercial customers and applying a single-rate tariff for each season. KEK argues that current meters are unable to accurately record the time of consumption.
- Eliminating the current rising block tariff for domestic consumers and applying the same tariff to all consumption. KEK argues that vulnerable customers can be supported through a new tariff for which customers would have to prove their eligibility.

ERO proposes to accept the increase in customer charges for larger customers, but does not propose to accept the elimination of the time-of-day tariff or rising block tariff. ERO considers that these are important in ensuring affordability and promoting efficient use of electricity. KEK's requested tariffs would lead to energy charges for the smallest domestic customers increasing by levels which are unacceptable.

ERO, therefore, proposes that tariffs are increased by 5%. There are proposed increases in customer charges for larger customers and in reactive power charges for large industrial and commercial customers.

1 Introduction

The Energy Regulatory Office (ERO) is currently conducting a review of retail electricity tariffs to be charged by KEK JSC and transmission charges applied by KOSTT JSC² from 1st April 2008. The review covers both the level of allowed revenues to be recovered by KEK and KOSTT in 2008 from regulated tariffs and charges and the structure of those tariffs and charges.

This Consultation Paper is published as an opportunity for stakeholders to provide comments on these applications, prior to ERO issuing its decision on the approved tariffs. It contains:

- A description of the review process followed to date.
- ERO's views on the allowed revenues for 2008 requested by KEK and KOSTT and preliminary proposals as to a reasonable level of allowed revenues to be recovered from regulated tariffs.
- A summary of the requested changes in retail tariff structures submitted by KEK³.
- ERO's views on these proposed changes and preliminary proposals as to revisions to existing tariff structures.
- The tariffs and charges applied for by KEK and KOSTT and those that would be approved under ERO's preliminary proposals.

Copies of the full applications received are available on ERO's website www.ero-ks.org.

At this stage, ERO has taken no decision on the tariffs which will be approved. The proposals by ERO set out in this paper are preliminary only and provided solely as a basis for comment by stakeholders. ERO will reach its decision on approved tariffs only following the review and consideration of all comments and views submitted by stakeholders.

The deadline for the receipt of comments in response to this Consultation Paper is 20th March 2008. Approved new tariffs will take effect from 1st April 2008.

Comments should be submitted in writing, preferably in electronic format. Comments submitted by email should be sent to ero.pricing-tariffs@ero-ks.org with the subject line containing the words "ETR 2 Consultation Paper – Comments".

Comments submitted in hard copy should be sent to ERO at its offices at Rr. Hamdi Mramori, Nr. 1, Prishtinë 10000 and marked for the attention of the "Pricing and Tariffs Department".

ERO intends to publish all comments received, either in full or in summary. Stakeholders should identify any parts of their comments which should be treated as confidential.

² Kosovo Independent Operator of the transmission and trade electricity system

³ No changes in the structure of transmission charges have been proposed by KOSTT and, therefore, these are not reviewed in this Consultation Paper.

2 Review process

Preliminary tariff applications were submitted by KEK and KOSTT in December 2007. These applications set out the companies' proposals for allowed revenues, changes in tariff structures and the resulting tariffs.

ERO has undertaken an extensive analysis of these applications. This has included identifying data errors and inconsistencies and an assessment of the reasonableness of proposed costs and requests for the justification or amendment of these. As a result of this analysis, both KEK and KOSTT have made a number of significant downward adjustments to their original applications to take account of ERO's concerns.

The applications presented in this Consultation Paper are the amended applications resulting following the completion of this analysis and responses by KEK and KOSTT. In some cases, KEK and KOSTT have considered that no amendment is required. Where ERO continues to consider that the requests contained in the amended applications are unreasonable or unjustified, then it has prepared preliminary proposals on appropriate corrections to be implemented through its decision on approved tariffs. These preliminary proposals are also presented in this Consultation Paper.

It should be noted that ERO continues to experience difficulties in reconciling the various elements of the applications presented by KEK, in particular. In some cases, differing values for cost and revenue items are given in the formal application and the detailed supporting data templates. In others, ERO obtains differing output values on inputting the contents of the data templates into its revenue and tariffs model (RTM) than are presented by KEK in its application which has been compiled using the same input values and model. In such instances, ERO's approach has been to:

- Take the input values from the most recent versions of the data templates submitted by KEK.
- Take the output values calculated by ERO's RTM using these input values.

3 Allowed revenues request – Overview

A summary of the allowed revenues requested by KEK and KOSTT is presented below, in

Table 1. This shows, for each KEK division⁴ and for KOSTT:

- Total allowed revenues approved by ERO for 2007.
- Total costs actually incurred in 2007, according to data provided by KEK and KOSTT.
- Total allowed revenues requested by KEK and KOSTT for 2008.
- Import subsidies provided from the Kosova Consolidated Budget (KCB) as forecast for 2007, actually received for 2007 and approved for 2008.
- Revenues from exports of electricity as forecast for 2007, actually received for 2007 and expected for 2008.
- Revenues from sales of electricity to eligible customers (Feronikeli) as forecast for 2007, actually received for 2007 and expected for 2008.
- Volumes of electricity (after allowing for transmission and distribution losses) sold to regulated customers (categories 0 to 8) as forecast for 2007, actually achieved for 2007 and expected for 2008.
- The resulting average unit cost of supply to regulated customers allowed for 2007, actually incurred in 2007 and requested for 2008.

The costs shown for KEK Distribution and KOSTT exclude the costs of losses purchased by these entities⁵.

Table 1: KEK and KOSTT-requested allowed revenues

⁴ The costs of KEK's HQ division are allocated between the other divisions in proportion to their share of total employee numbers.

⁵ KEK Distribution and KOSTT are required to reimburse KEK Supply for the costs of power purchases to meet distribution and transmission losses, respectively.

Allowed revenues request – Overview

		2007 Allowed	2007 Actual	2008 Requested
Power Purchase Costs <i>a)</i>	000 €	46,316.1	51,090.2	54,632.0
KEK Mining	000 €	42,150.8	36,873.7	44,277.8
KEK Generation	000 €	38,047.5	32,791.0	42,329.0
KEK Distribution (exc. losses purchases)	000 €	16,843.5	14,272.4	23,366.8
KEK Supply (exc. power purchase costs)	000 €	6,008.9	2,235.2	3,252.8
KOSTT (exc. losses purchases)	000 €	8,635.3	5,536.0	9,988.8
Total allowed revenues	000 €	158,002.1	142,798.3	177,847.1
Import subsidies	000 €	9,872.9	12,915.0	19,800.0
Export revenues	000 €	2,765.1	12,804.3	1,461.9
Revenues from sales to eligible customers	000 €	10,329.5	3,400.6	19,692.3
Total allowed revenues recovered from regulated customers	000 €	135,034.6	113,678.4	136,892.9
Sales to regulated customers	GWh	2,699.7	2,170.2	2,486.5
Average regulated unit cost	€/kWh	5.00	5.24	5.51

a) Imports + purchases from Ujmani and distribution connected generator

Requested allowed revenues for the industry as a whole in 2008 are approximately 13% above 2007 allowed levels. Requested power purchase costs increase by 18%, other requested KEK costs by 10% and requested costs for KOSTT (excluding transmission losses) by 16%.

Import subsidies and revenues from exports of electricity and sales to eligible customers are deducted from these requested allowed revenues to determine the allowed revenues to be recovered from regulated customers. Large increases in import subsidies (of €10 million from 2007 forecast levels) and sales to eligible customers are projected for 2008. These are expected to recover over 20% of requested allowed revenues, greatly reducing the costs passed through to regulated customer tariffs. As a result, requested revenues to be recovered from regulated customers are virtually unchanged from 2007 allowed levels, despite the increase in total requested allowed revenues by KEK and KOSTT.

Forecast sales volumes to regulated customers are approximately 15% above actual 2007 sales.

The resulting requested average unit cost to be recovered from regulated customers in 2008 is €5.51/kWh, 10% above the average unit cost allowed for 2007.

It should be noted that comparisons of allowed and actual costs for 2007 are in large part misleading. Actual expenditures were constrained in some instances by cash shortages (owing to low collection rates). It is, therefore, to be expected that actual expenditures are below allowed levels. This does not imply that allowed levels were excessive but rather that KEK was unable to collect the allowed levels of expenditures from customers.

As additional information, Table 2, below, provides a breakdown of energy supplied to KEK and sold as allowed for 2007, actually incurred for 2007 and requested for 2008.

Allowed revenues request – Overview

Table 2: KEK and KOSTT-requested power flows

		2007 Allowed	2007 Actual	2008 Requested
Imports	GWh	576.6	642.3	497.0
<i>Average cost (contracted imports)</i>	<i>€/kWh</i>	<i>7.40</i>	<i>8.37</i>	<i>10.40</i>
KEK generation	GWh	3,942.0	4,239.3	4,407.3
<i>Average cost (including mining costs)</i>	<i>€/kWh</i>	<i>2.03</i>	<i>1.64</i>	<i>1.97</i>
Kosovo transmission-connected generation	GWh	113.0	70.1	76.0
<i>Average cost</i>	<i>€/kWh</i>	<i>2.13</i>	<i>2.74</i>	<i>2.40</i>
Kosovo distribution-connected generation	GWh	41.3	23.6	28.0
<i>Average cost</i>	<i>€/kWh</i>	<i>3.00</i>	<i>3.97</i>	<i>4.00</i>
Total supplies	GWh	4,672.8	4,975.3	5,008.3
Average cost	€/kWh	2.71	2.43	2.82
Transmission losses	GWh	169.9	266.6	196.1
		3.7%	5.4%	3.9%
<i>of which, transmission losses on transit flows</i>	<i>GWh</i>	<i>-31.0</i>	<i>-3.2</i>	<i>-31.0</i>
Distribution losses	GWh	1,382.8	1,941.7	1,560.1
		35.0%	48.1%	40.0%
Internal consumption	GWh	0.0	98.9	100.0
Exports	GWh	92.2	378.9	33.0
Sales to eligible customers (Feronikeli)	GWh	359.2	122.2	663.6
Sales to 110kV customers	GWh	131.6	76.8	146.3
Sales to distribution-connected customers	GWh	2,568.1	2,093.4	2,340.2
Total sales to regulated customers	GWh	2,699.7	2,170.2	2,486.5

As can be seen, the large increase in power purchase costs from allowed 2007 levels is primarily due to large increases in projected import costs. These rise by around 25% from actual levels in 2007 and by around 40% from those levels projected at the time of setting allowed revenues for 2007. KEK have justified this requested increase by reference to current regional wholesale market prices.

To assess the reasonableness of this requested increase in import prices, ERO has compared wholesale electricity prices for January and February 2008 and January and February 2007 on the European Energy Exchange (EEX), which sets benchmark traded electricity prices for much of Europe. For January and February 2007, average weekday prices were €39.9/MWh⁶. For January and February 2008, these rose to €67.0/MWh—an increase of 68%. While only one measure of changing internationally traded electricity prices, this does suggest that European electricity market prices have risen very substantially since 2007.

⁶ Calculated as the average of average prices for intra-day trade in the hour 15:00-16:00 on all working days in January and February.

4 Allowed revenues request - KEK

Following its review of KEK's requested allowed revenues for 2008, ERO's main outstanding concerns are KEK's assumptions on:

- Unfunded capital expenditures
- Distribution losses

These concerns are discussed below.

4.1 Unfunded capital expenditures

KEK has assumed a total of €152 million in capital expenditures in 2008. Of this, €50.9 million would be funded by grants, €80.4 million by loans from KCB⁷ and the remainder is currently unfunded.

ERO is concerned that this capital expenditure programme may be unrealistic. ERO notes that the allowed revenues approved for 2007 provided for €109 million in capital expenditures by KEK but that, ultimately, actual expenditures were just €38 million.

KEK has explained that this difference was largely due to delays in procurement as a result of shortages of funds. ERO notes that it appears unlikely that this situation would change in 2008. Where funds are not available from KCB or donor sources, KEK will need to either raise these from internal cash reserves (currently very low) or from commercial borrowing (currently seen as unrealistic in any significant amounts).

ERO notes that the actual grants and loans made available from KCB for 2008 total €38 million and €79.4 million respectively, below those assumed by KEK.

ERO, therefore, proposes to adjust the allowed capital expenditures in 2008 downwards to match the sums allocated in loans and grants from KCB. The exception to this is KEK's proposed investment of €10 million in new distribution meters in 2008. New meters are essential in reducing non-technical losses—which are currently excessive. ERO, therefore, considers that these expenditures should be allowed for 2008, even though they are currently unfunded.

ERO will continue to monitor KEK's ability to undertake these expenditures. Where they are not made, ERO will apply a corresponding downward adjustment to 2009 allowed revenues correcting for depreciation and returns allowed for 2008 on assets that were not actually constructed. A similar adjustment was made this year for assets allowed for but not constructed in 2007.

4.2 Distribution losses

ERO has concerns over the continuing high levels of distribution losses assumed by KEK—at a rate of 18% for technical losses and 22% for non-technical losses.

⁷ For the purposes of determining allowed revenues, these loans are treated as commercial financing and KEK is permitted to earn a commercial rate of return on assets constructed with them.

Allowed revenues request - KEK

ERO recognises that total assumed distribution losses of 40% represent a significant decrease on actual 2006 and 2007 levels of 48%. However, these losses are in excess of the allowed level set for 2007, of 14% technical losses and 21% for non-technical losses.

Technical losses are those due to the characteristics of the network (eg, resistance on distribution lines). All networks will incur technical losses. The rate of losses increases with, among other factors, older and more poorly-maintained networks, networks with more dispersed customers and networks operating close to full capacity. KEK's ability to control these losses without substantial investment in the distribution network is limited.

ERO expects these losses to fall over time as KEK undertakes investments and increases maintenance expenditures. However, ERO accepts that existing levels of technical losses will take time to reduce given the need for capital expenditures—which KEK is currently unable to finance.

Non-technical losses are largely due to theft and metering errors. These losses are more within KEK's immediate control than technical losses, and can be reduced with only limited expenditures. ERO, therefore, does not consider it appropriate to allow KEK higher non-technical losses than were considered to be acceptable in 2007 and, indeed, that KEK should be able to further reduce these losses. ERO, therefore, proposes to set a target for allowed non-technical losses in 2008 of 20%. ERO will expect further reductions from 2009 onwards, once new distribution meters are introduced.

ERO therefore proposes to set total allowed distribution losses for 2008 at 38%, comprised of technical losses of 18% and non-technical losses of 20%. This is equivalent to increasing assumed electricity sales in 2008 by 78 GWh.

For the avoidance of doubt, ERO also confirms that no allowance is made for billed but uncollected revenues—ie, the allowed revenues assume a 100% collection rate. The costs associated with non-collection are borne entirely by KEK and not by customers.

5 Allowed revenues request – KOSTT

ERO has three concerns with respect to KOSTT's requested allowed revenues for 2008:

- Compensation for 2007 losses payments
- Unfunded capital expenditures
- Weighted average cost of capital (allowed return)

5.1 Compensation for 2007 losses payments

The actual costs of transmission losses purchased by KOSTT in 2007 exceeded the provision included in allowed revenues for 2007. ERO has set out, in its published tariff methodology, that KOSTT should be compensated for these additional costs where they are outside its control. This compensation is made through an increase in allowed revenues for 2008.

KOSTT has, in its submissions to ERO, estimated these additional costs as €0.688 million for the period May to December 2007. Extrapolating to March 2008, this would imply total additional costs of losses to be included in allowed revenues for 2008 of €0.946 million.

ERO considers that a lower figure for compensation is justified. KOSTT's claim for compensation includes the costs of all additional losses to those included in 2007 allowed revenues—irrespective of whether these are due to forecasting errors or due to KOSTT's inability to control transmission losses. Allowing KOSTT to recover the full difference will remove any incentives on it to control transmission losses.

At this time, it is not possible to identify which additional losses costs are due to forecasting errors and which due to KOSTT's inability to control losses. ERO, therefore, proposes to include an allowance of €0.5 million (approximately half of that requested by KOSTT) for compensation for additional costs of losses in the 2008 allowed revenues for KOSTT. This appears to represent a reasonable balance between protecting KOSTT and providing incentives for it to control losses. For 2008, ERO has reset allowed transmission losses at a level of 3.9%⁸, reflecting more recent estimates of actual losses.

5.2 Unfunded capital expenditures

In its submission, KOSTT has assumed that its requested capital expenditures of €38.5 million in 2008 would be almost entirely funded from grants, totaling €38.0 million. Of this total, €17.2 million in grants have been assumed to be provided from the KCB⁹. A further €1.6 million is assumed to be provided from unidentified donors to date.

The approved KCB provides for €15.5 million in grants to KOSTT. Consistent with its approach to unfunded capital expenditures for KEK, ERO therefore proposes to reduce the allowed capital expenditures for KOSTT in 2008 by the difference between assumed and actual KCB grants. In

⁸ Equivalent to a transmission loss factor of 1.041 as applied in the Market Rules.

⁹ Excluding projects where KCB is expected to make a partial contribution in 2008 or later years.

Allowed revenues request – KOSTT

In addition, ERO proposes to reduce allowed expenditures which are assumed to be funded from unidentified donor sources, on the basis that it is not realistic for KOSTT to assume it will be able to obtain and spend these funds in 2008.

This results in a total proposed reduction of allowed capital expenditures for KOSTT in 2008 of €3.3 million. The resulting reduction in annual allowed revenues for 2008 is approximately €0.1 million.

5.3 Weighted average cost of capital

For 2007, ERO set the weighted average cost of capital (WACC – the allowed return on assets) equal to 13.8% in nominal terms for both KEK and KOSTT¹⁰. In its application, KOSTT has requested that the allowed WACC be increased to 15.87%. This increase results from an assumed increase in the cost of debt for KOSTT and an assumed decrease in its realistic level of gearing (debt to equity ratio) compared to those previously applied by ERO.

ERO considers that there is no strong reason for the cost of capital to differ between KEK and KOSTT. KEK has confirmed that it is not seeking an increase in its allowed WACC for 2008. Given this, ERO proposes to retain the same WACC for both KEK and KOSTT for 2008. The impact of this on KOSTT's allowed revenues is, however, insignificant, as almost all its capital expenditures are assumed to be funded from grants¹¹.

¹⁰ Calculated as the product of a real (excluding inflation) WACC of 10.8% and an assumed Eurozone inflation rate of 2.75%.

¹¹ KEK and KOSTT are only permitted to earn a return on non-grant funded assets (depreciation is earned on all new assets).

6 Allowed revenues request – proposals

Table 3, below, shows total allowed revenues for KEK and KOSTT in 2008, if adjusted in accordance with ERO's proposals described above. The result is a small reduction in assumed allowed revenues from the levels requested by KEK and KOSTT. Under ERO's proposals, **average unit regulated costs in 2008 would be increased for 5.3% on 2007 allowed levels.**

Table 3: ERO-proposed allowed revenues

		2007 Allowed	2007 Actual	2008 Requested	2008 ERO- Proposed
Non-KEK Power Purchase Costs	000 €	46,316.1	51,090.2	54,632.0	54,632.0
KEK Mining	000 €	42,150.8	36,873.7	44,277.8	44,102.4
KEK Generation	000 €	38,047.5	32,791.0	42,329.0	41,505.8
KEK Distribution (exc. losses purchases)	000 €	16,843.5	14,272.4	23,366.8	23,197.9
KEK Supply (exc. power purchase costs)	000 €	6,008.9	2,235.2	3,252.8	3,021.7
KOSTT (exc. losses purchases)	000 €	8,635.3	5,536.0	9,988.8	9,427.2
Total allowed revenues	000 €	158,002.1	142,798.3	177,847.1	175,887.0
Import subsidies	000 €	9,872.9	12,915.0	19,800.0	19,800.0
Export revenues	000 €	2,765.1	12,804.3	1,461.9	1,461.9
Revenues from sales to eligible customers	000 €	10,329.5	3,400.6	19,692.3	19,552.4
Total allowed revenues recovered from regulated customers	000 €	135,034.6	113,678.4	136,892.9	135,072.7
Sales to regulated customers	GWh	2,699.7	2,170.2	2,486.5	2,564.5
Average regulated unit cost	€/kWh	5.00	5.24	5.51	5.27

ERO's assumptions on the power flows and final electricity sales to be used for the purposes of setting allowed revenues for 2008 are shown in Table 4, below.

Table 4: ERO-assumed power flows

		2007 Allowed	2007 Actual	2008 Requested	2008 ERO- Proposed
Imports	GWh	576.6	642.3	497.0	497.0
<i>Average cost (contracted imports)</i>	<i>€/kWh</i>	<i>7.40</i>	<i>8.37</i>	<i>10.40</i>	<i>10.40</i>
KEK generation	GWh	3,942.0	4,239.3	4,407.3	4,407.3
<i>Average cost (including mining costs)</i>	<i>€/kWh</i>	<i>2.03</i>	<i>1.64</i>	<i>1.97</i>	<i>1.94</i>
Kosovo transmission-connected generation	GWh	113.0	70.1	76.0	76.0
<i>Average cost</i>	<i>€/kWh</i>	<i>2.13</i>	<i>2.74</i>	<i>2.40</i>	<i>2.40</i>
Kosovo distribution-connected generation	GWh	41.3	23.6	28.0	28.0
<i>Average cost</i>	<i>€/kWh</i>	<i>3.00</i>	<i>3.97</i>	<i>4.00</i>	<i>4.00</i>
Total supplies	GWh	4,672.8	4,975.3	5,008.3	5,008.3
Average cost	€/kWh	2.71	2.43	2.82	2.80
Transmission losses	GWh	169.9	266.6	196.1	196.1
<i>of which, transmission losses on transit flows</i>	<i>GWh</i>	<i>3.7%</i>	<i>5.4%</i>	<i>3.9%</i>	<i>3.9%</i>
Distribution losses	GWh	1,382.8	1,941.7	1,560.1	1,482.1
		<i>35.0%</i>	<i>48.1%</i>	<i>40.0%</i>	<i>38.0%</i>
Internal consumption	GWh	0.0	98.9	100.0	100.0
Exports	GWh	92.2	378.9	33.0	33.0
Sales to eligible customers (Feronikeli)	GWh	359.2	122.2	663.6	663.6
Sales to 110kV customers	GWh	131.6	76.8	146.3	146.3
Sales to distribution-connected customers	GWh	2,568.1	2,093.4	2,340.2	2,418.2
Total sales to regulated customers	GWh	2,699.7	2,170.2	2,486.5	2,564.5

7 KEK- Requested retail tariffs

KEK has proposed a number of changes in tariff structures:

Customer charges

- Customer charges (fixed monthly charges) would be very substantially increased. These would also be rebalanced, with larger customers paying much higher charges than smaller customers, rather than similar levels of charges. KEK argues that current tariffs understate these customer fixed costs (associated with the provision of meters and meter-reading, billing and collection services) and that these costs are much higher for larger customers (due to more complex and expensive meters and greater customer account management requirements).

Time-of-day tariffs

- Time-of-day (TOD) tariffs would be eliminated for customers in categories 4 (category II – 0.4kV customers) and 5 (domestic standard customers). Seasonal tariffs (high and low season) would be retained. KEK argues that the TOD tariff is ineffective in demand management, as meter clocks are generally incorrect¹² and, therefore, do not reward customers switching their consumption to off-peak (low) periods and that it is open to abuse due to manipulation of the meter clocks.

Rising block domestic tariff

- The rising block tariff would be eliminated for metered domestic customers (categories 5 and 6). KEK argues that that adequate protection for poorer customers can be provided through existing social welfare and subsidy mechanisms, combined with a new two-block tariff for those customers able to demonstrate their vulnerable status.

KEK has also proposed a number of constraints on changes to tariff structures:

No tariff decreases

- None of the tariffs should be decreased. This constraint is proposed as KEK questions the reasonableness of the RTM assumptions that lead to decreases in some tariffs at the same time as average tariffs increase (see Section 2). If decreases in tariffs are a result of model assumptions that later change, then this would create uncertainty for customers and would not enhance the cost-reflectiveness of tariffs.

Gradual elimination of cross-subsidies

- Tariffs for domestic customers should not be increased to the full cost-reflective level, because such a move would cause a severe price shock for these customers. Cross subsidies currently remain significant.

¹² KEK attributes this to the frequent load-shedding which leads to meter clocks being stopped for the duration of the supply interruption.

KEK- Requested retail tariffs

Table 5 shows the tariffs requested by KEK, compared with existing tariffs.

Table 5: KEK-requested retail tariffs

Tariff Group	Voltage level of supply	Tariff elements	Unit	Time-of-day	Existing		2008 KEK-Proposed	
					High season	Low season	High season	Low season
					1 October - 31 March	1 April - 30 September	1 October - 31 March	1 April - 30 September
0	110kV	Standing (customer) charge	€/ customer/year		34.00		2,743.00	
		Standing (demand) charge	€/kW		519.00	519.00	520.00	520.00
		Active energy (P), of which:	€/kWh	High tariff	6.03	1.78	6.70	2.00
					Low tariff	2.50	1.47	3.00
Reactive energy (Q)	€/kV A rh		0.00	0.00	0.00	0.00		
1	35kV	Standing (customer) charge	€/ customer/year		30.00		352.00	
		Standing (demand) charge	€/kW		540.00	540.00	540.00	540.00
		Active energy (P), of which:	€/kWh	High tariff	6.30	2.73	6.40	2.80
					Low tariff	3.33	2.47	3.35
Reactive energy (Q)	€/kV A rh		0.04	0.04	0.00	0.00		
2	10kV	Standing (customer) charge	€/ customer/year		34.00		148.00	
		Standing (demand) charge	€/kW		466.00	466.00	466.00	466.00
		Active energy (P), of which:	€/kWh	High tariff	7.07	3.15	7.90	3.25
					Low tariff	3.81	2.87	4.00
Reactive energy (Q)	€/kV A rh		0.32	0.32	0.53	0.53		
3	0.4kV Category I (large reactive power consumers)	Standing (customer) charge	€/ customer/year		29.00		81.00	
		Standing (demand) charge	€/kW		270.00	270.00	300.00	300.00
		Active energy (P), of which:	€/kWh	High tariff	7.85	4.36	8.00	4.50
					Low tariff	4.95	4.11	5.10
Reactive energy (Q)	€/kV A rh		1.53	1.53	1.55	1.55		
4	0.4kV Category II	Standing (customer) charge	€/ customer/year		34.00		76.00	
		Standing (demand) charge	€/kW		0.00	0.00	0.00	0.00
		Active energy (P)	€/kWh	Single tariff	9.68	6.26	8.85	5.95
		Active energy (P), of which:	€/kWh	High tariff	11.64	7.63	11.70	7.90
Low tariff	5.82				3.81	6.00	4.00	
5	0.4kV (domestic 2-	Standing (customer) charge	€/ customer/year		24.00		65.00	
		Active energy (P), for consumption:						
		< 200kWh/month (First Block):	€/kWh	High tariff	4.42	3.17	5.60	4.10
					Low tariff	2.21	1.58	5.60
		200-600 kWh/month (Second Block):	€/kWh	High tariff	5.97	4.28	5.60	4.10
					Low tariff	2.99	2.14	5.60
> 600 kWh/month (Third Block):	€/kWh	High tariff	8.67	6.21	5.60	4.10		
			Low tariff	4.33	3.11	5.60	4.10	
6	0.4kV (domestic, 1-	Standing (customer) charge	€/ customer/year		24.00		55.00	
		Active energy (P), for consumption:						
		< 200kWh/month (First Block):	€/kWh	Single tariff	3.94	2.82	5.60	4.10
		200-600 kWh/month (Second Block):	€/kWh	Single tariff	5.32	3.81	5.60	4.10
> 600 kWh/month (Third Block):	€/kWh	Single tariff	7.72	5.53	5.60	4.10		
7	0.4kV (domestic unmetered)	Estimated consumption < 200kWh/month	€/ customer/month		20.00		26.00	
		Estimated consumption 200-500kWh/month	€/ customer/month		36.00		48.00	
		Estimated consumption > 600kWh/month	€/ customer/month		61.00		116.00	
8	Public lighting	Standing (customer) charge	€/ customer/year		34.00		55.00	
		Active energy (P), for consumption:	€/kWh	Single tariff	7.82	7.82	5.43	5.43

8 Review of requested tariffs

ERO has had difficulty in understanding the basis for some of the changes in tariffs proposed by KEK. The discussion contained in this paper, therefore, represents ERO's understanding of KEK's proposals.

With respect to the changes in structures proposed by KEK, ERO has the following comments:

Customer charges

- ERO agrees that it would be appropriate to increase relative customer charges applied to larger customers, reflecting their greater service costs.

Time-of-day tariffs

- ERO accepts that there is a strong argument for elimination of the TOD tariff for smaller customers, given the limitations of existing meters. However, ERO also notes that KEK is engaged in a programme of procuring new meters for customers. To date, ERO has not had the opportunity to discuss with KEK the types of meters to be provided for smaller customers under this programme. ERO believes that it is appropriate to investigate whether new TOD meters can eliminate the problems with existing metering and, thereby, allow the continuation of an effective TOD tariff for smaller customers. Such a tariff has significant benefits in terms of incentives for demand side management by customers and for enhancing affordability for poorer customers.

Rising block domestic tariff

- ERO does not, at this time, believe it is appropriate to eliminate the rising block tariff for domestic customers. This tariff plays an important role in ensuring the affordability of electricity for poorer households. ERO is also concerned that the implementation of KEK's proposed alternative tariff for vulnerable customers is not realistic at this time—criteria for eligibility for this tariff remain to be defined and there is a very limited period in which households could apply to switch to this tariff before the existing rising block would be eliminated. ERO notes that KEK's requested tariffs would lead to energy charges for domestic consumers in the first block (under 200kWh per month) increasing by very large amounts.

KEK's requested tariffs would also, according to ERO's calculations, result into allowed revenues by approximately €27 million which are 20% higher than the allowed levels for 2008. It will, therefore, be necessary to make adjustments to correct for this.

9 ERO-proposed retail tariffs

Taking into account its concerns described above, ERO has developed its own proposed retail tariffs.

These include two proposed changes in tariff structures:

Customer charges

- There should be a readjustment of customer charges to reflect the greater relative costs of servicing larger customers. However, ERO does not consider that the very large increases in all customer charges proposed by KEK are justified:
 - These increases are not representative of ERO's calculations of cost-reflective customer charges, which are much lower.
 - Increases in customer charges are regressive and can have very significant adverse impacts on affordability for smaller domestic customers. These will no longer be able to reduce their electricity bills significantly by reducing consumption.

Reactive power charges

- On review, ERO is concerned that reactive power charges for customers at 35kV and 10kV (categories 1 and 2) are excessively low and are not cost-reflective. ERO considers these charges should be similar to those applied for customers with reactive power metering at 0.4kV (category 3).

ERO's proposed retail tariffs have been developed as follows:

- Customer charges for domestic customers (categories 5 and 6) remain unchanged. Charges for other categories will be adjusted so that the customer charge relative to that for domestic customers reflects KEK's estimates of the relative costs of serving those customer categories¹³. If this would result in a lower customer charge than currently applied, then the existing customer charge remains unchanged.
- Reactive power charges for 35kV and 10kV customers (categories 1 and 2) will be increased to equal those applied to 0.4kV customers (category 3).
- Other tariffs are increased by 5%, in line with the required average increase.

The resulting ERO-proposed retail tariffs are shown below.

¹³ For example, KEK has estimated that the costs of servicing a customer in category 1 (35kV) are 5.4 times greater than the costs of servicing a domestic customer in category 5. This implies that, given a customer charge of €24/year for the latter, the customer charge applied in category 1 should be €129.60/year.

ERO-proposed retail tariffs

Table 6: ERO-proposed retail tariffs

Tariff Group	Voltage level of supply	Tariff elements	Unit	Time-of-day	Existing		2008 ERO-proposed		
					High season	Low season	High season	Low season	
					1 October - 31 March	1 April - 30 September	1 October - 31 March	1 April - 30 September	
0	110kV	Standing (customer) charge	€/customer/year			34.00	981.00		
		Standing (demand) charge	€/kW			519.00	519.00	545.00	545.00
		Active energy (P), of which:	€/kWh	High tariff	6.03	1.78	6.33	1.87	
			€/kWh	Low tariff	2.50	1.47	2.63	1.54	
Reactive energy (Q)	€/kVArh			0.00	0.00	0.00	0.00		
1	35kV	Standing (customer) charge	€/customer/year			30.00	130.00		
		Standing (demand) charge	€/kW			540.00	540.00	567.00	567.00
		Active energy (P), of which:	€/kWh	High tariff	6.30	2.73	6.62	2.87	
			€/kWh	Low tariff	3.33	2.47	3.50	2.59	
Reactive energy (Q)	€/kVArh			0.04	0.04	1.53	1.53		
2	10kV	Standing (customer) charge	€/customer/year			34.00	54.00		
		Standing (demand) charge	€/kW			466.00	466.00	489.00	489.00
		Active energy (P), of which:	€/kWh	High tariff	7.07	3.15	7.42	3.31	
			€/kWh	Low tariff	3.81	2.87	4.00	3.01	
Reactive energy (Q)	€/kVArh			0.32	0.32	1.53	1.53		
3	0.4kV Category I (large reactive power consumers)	Standing (customer) charge	€/customer/year			29.00	30.00		
		Standing (demand) charge	€/kW			270.00	270.00	284.00	2.84
		Active energy (P), of which:	€/kWh	High tariff	7.85	4.36	8.24	4.58	
			€/kWh	Low tariff	4.95	4.11	5.20	4.32	
Reactive energy (Q)	€/kVArh			1.53	1.53	1.53	1.53		
4	0.4kV Category II	Standing (customer) charge	€/customer/year			34.00	34.00		
		Standing (demand) charge	€/kW			0.00	0.00	0.00	0.00
		Active energy (P)	€/kWh	Single tariff	9.68	6.26	10.16	6.57	
		Active energy (P), of which:	€/kWh	High tariff	11.64	7.63	12.22	8.01	
€/kWh	Low tariff		5.82	3.81	6.11	4.00			
5	0.4kV (domestic 2-rate meter)	Standing (customer) charge	€/customer/year			24.00	24.00		
		Active energy (P), for consumption:							
		< 200kWh/month (First Block):	€/kWh	High tariff	4.42	3.17	4.64	3.33	
			€/kWh	Low tariff	2.21	1.58	2.32	1.66	
		200-600 kWh/month (Second Block):	€/kWh	High tariff	5.97	4.28	6.27	4.49	
			€/kWh	Low tariff	2.99	2.14	3.14	2.25	
> 600 kWh/month (Third Block):	€/kWh	High tariff	8.67	6.21	9.10	6.52			
	€/kWh	Low tariff	4.33	3.11	4.55	3.27			
6	0.4kV (domestic, 1-rate meter)	Standing (customer) charge	€/customer/year			24.00	24.00		
		Active energy (P), for consumption:							
		< 200kWh/month (First Block):	€/kWh	Single tariff	3.94	2.82	4.14	2.96	
		200-600 kWh/month (Second Block):	€/kWh	Single tariff	5.32	3.81	5.59	4.00	
		> 600 kWh/month (Third Block):	€/kWh	Single tariff	7.72	5.53	8.11	5.81	
7	0.4kV (domestic unmetered)	Estimated consumption < 200kWh/month	€/customer/month			20.00	21.00		
		Estimated consumption 200-500kWh/month	€/customer/month			36.00	38.00		
		Estimated consumption > 600kWh/month	€/customer/month			61.00	64.00		
8	Public lighting	Standing (customer) charge	€/customer/year			34.00	34.00		
		Active energy (P), for consumption:	€/kWh	Single tariff	7.82	7.82	8.21	8.21	

Requested transmission charges

10 Requested transmission charges

KOSTT has made no requests for changes in transmission charges structures. ERO has, therefore, calculated these charges taking into account the proposed allowed revenues for 2008. The resulting ERO-proposed transmission charges are shown below.

Table 7: ERO proposed transmission charges

Tariff Group	Voltage level of connection	Tariff elements	Unit	Existing	2008 ERO-proposed
Generator	400kV / 220kV	Use of system(capacity) charge	€/MM/year	0.000	0.000
		System operator charge	€/MMh	0.834	0.855
		Market operator charge	€/MMh	0.013	0.013
Generator	110kV	Use of system(capacity) charge	€/MM/year	0.000	0.000
		System operator charge	€/MMh	0.834	0.855
		Market operator charge	€/MMh	0.013	0.013
Generator	Distribution	Use of system(capacity) charge	€/MM/year	0.000	0.000
		System operator charge	€/MMh	0.305	0.289
		Market operator charge	€/MMh	0.013	0.013
Supplier	400kV / 220kV	Use of system(capacity) charge	€/MM/year	3.025	3.629
		System operator charge	€/MMh	0.834	0.855
		Market operator charge	€/MMh	0.013	0.013
Supplier	110kV	Use of system(capacity) charge	€/MM/year	6.792	7.901
		System operator charge	€/MMh	0.834	0.855
		Market operator charge	€/MMh	0.013	0.013