

Prishtina, 23rd February 2007

KEK JSC Retail Tariff Application

ERO Briefing Note

This note has been prepared by consultants to ERO. Its contents do not necessarily reflect the views of ERO and should not be considered to indicate or in any way pre-determine the conclusions and decisions to be reached by the Board of ERO with respect to the retail tariff application received from KEK JSC.

1 Introduction

On 19th February 2007, ERO received an application from KEK JSC for the approval of proposed new retail tariffs. In accordance with the Rule on Principles of Calculation of Tariffs in the Electricity Sector (the ‘Pricing Rule’)¹, these proposed tariffs may, subject to the approval of the Board of ERO, come into effect 40 days after receipt of the application (ie, from 1st April 2007). The Board of ERO is required to reach a decision on whether to approve, approve with amendments or reject the proposed tariffs no later than 15 days of receipt of the submission (ie, by 6th March 2007).

This Briefing Note has been prepared to provide background to the application.

¹ This and other secondary legislation are available from ERO’s website at www.ero-ks.org.

2 Legal framework

Under the Law on the Energy Regulator², the Board of ERO is responsible for approving regulated retail tariffs charged by the licensed Public Supplier (KEK JSC) to non-eligible customers³. In accordance with the Pricing Rule and Tariff Methodology adopted by ERO, the process for establishing and approving these regulated tariffs is as follows:

- ERO reviews the required operating and capital costs (including a reasonable return on investments) of the Public Supplier, including the costs of power purchases and of transmission and distribution charges. Following this review, the Board of ERO issues a decision determining the allowed revenues to be recovered by the Public Supplier for each year.
- The Public Supplier then proposes a set of regulated retail tariffs which are expected to recover these allowed revenues. These proposed tariffs are subject to review and approval by the Board of ERO.

This approach has been adopted on the basis that the Public Supplier will be better informed than ERO about the characteristics of its customers, the impacts of alternative tariff structures and the feasibility of introducing these given metering and billing constraints.

The proposed retail tariffs must conform to the requirements established by relevant primary and secondary legislation. Of particular importance are the requirements under Article 46.2 of the Law on the Energy Regulator that:

- e) prices for the individual groups of customers shall conform to the costs of delivery of electricity, heat and natural gas to those customers;
- f) cross-subsidies⁴ of customer classes shall not be permitted; *[This does not exclude cross-subsidies between customers in the same class such as household customers]*

² Law No. 2004/9, promulgated under UNMIK Regulation No. 2004/20 dated 30th June 2004.

³ Currently there is only one customer eligible to select their supplier. This is the Feronikeli complex owned and operated by Alferon.

⁴ A cross-subsidy occurs where the price charged to one customer class exceeds the costs of supplying that class, with the surplus being used to reduce the price to another customer class below its cost of supply.

3 Allowed revenues decision

ERO commenced its first price review in March 2006. The review was assisted by a KEMA consultant team funded under the World Bank's ESTAP III project. Following a process of stakeholder consultation, on 21st December 2006, the Board of ERO issued its decision⁵ on the allowed revenues to be recovered by KEK JSC from regulated retail tariffs of €141.899 million for the period 1st January – 31st December 2007.

⁵ Decision No. D/29/2006

4 Cost-reflective tariffs

As well as assisting in the calculation of allowed revenues, the KEMA consultant team also prepared and submitted a number of reports assessing the cost-reflectiveness of existing retail tariffs and making recommendations on how these should be amended to conform to the requirements of the Law on the Energy Regulator. The major conclusions reached in these reports were that:

- The existing tariff structure does not adequately reflect the costs of supply. It is based around voltage levels rather than cost drivers.
- Standing/demand charges should not vary by season—the costs of providing capacity to meet demand do not change by season.
- The use of a standing/demand charge customers connected at 0.4kV is unnecessarily complex.
- The use of a four-rate⁶ energy charge for household customers is overly complex, especially given the limited ability of these customers to respond to price signals by changing consumption patterns. It also requires the use of two-rate meters for these customers, which are more at risk from tampering and metering errors.
- The use of a rising block⁷ tariff to support low-income customers remains appropriate as a transitional measure. However, setting the upper limit for the first block at 800kWh/month is excessive. The estimated requirement to meet basic electricity needs is 200kWh/month and 400kWh/month if electricity is also used for heating purposes, based on current consumption patterns in Kosovo and international comparisons.
- There are large cross-subsidies from other customer groups (particularly those in categories 0, 2 and 4⁸) to household customers, in contravention of legal requirements.

The KEMA consultant team consequently recommended a restructuring of retail tariffs, along the following lines:

- The existing customer categories should be retained to minimize disruption.
- The costs of supply to each customer should be allocated between tariff categories, as follows:
 - Allowed demand-related costs of providing generating, transmission and distribution capacity (down to the voltage level of connection)

⁶ Winter high and low and summer high and low rates.

⁷ Under a rising block tariff, lower levels (blocks) of consumption are charged at a price below the cost of supply. The resulting shortfall is recovered by charging higher blocks at a price in excess of the cost of supply. Low-income customers are assumed to consume smaller quantities of electricity and, therefore, benefit from the lower price charged for these.

⁸ Customers connected at 110kV, at 10kV and at 0.4kV without reactive power charges respectively.

should be recovered from charges based on peak metered demand (kW). These should not vary by season.

- Allowed variable (fuel) costs of electricity generation, imports and transmission and distribution losses (down to the voltage level of connection) should be recovered from energy charges (kWh). These should vary by season and by peak (high season) and off-peak (low season) periods, as the costs of generation and imports will vary between these times.
- Allowed customer-related costs (metering and billing) should be recovered through a new standing/customer charge.
- Demand charges should be eliminated for customers connected at 0.4kV. Demand-related costs for these customers will be recovered through an increase in peak energy charges.
- Cross-subsidies from industrial and commercial customers to household customer should be eliminated.
- A new tariff block should be created for household customers registered as social cases (whose electricity costs are subsidized) in order to increase the transparency of charging arrangements. This block should be charged at zero.
- A new rising block structure should be introduced for other household customers, intended to ensure affordability of basic supplies, as follows:
 - A first block for consumption <200kWh/month, charged below the cost of supply.
 - A second block for consumption 200-600kWh/month.
 - A third block for consumption >600kWh/month, charged to recover the difference between total costs of supply to household customers and those recovered from electricity sales under the first two blocks.

Following further review and discussion, the KEMA consultant team recommended the retention of the existing four-rate energy tariff structure for household customers while noting its concerns.

Implementing the KEMA recommendations in full would lead to:

- Some reductions in average tariffs for industrial and commercial customers and large increases in average tariffs for household customers.
- A shift from demand-related to energy-related charges, benefiting those customers with more 'peaky' consumption patterns⁹.
- An increase in winter energy charges relative to summer energy charges, reflecting the much higher costs of power supply in winter (as a result of

⁹ A peaky consumption pattern is one where most consumption takes place over a short time period.

the use of older and more inefficient generators and requirements for high-priced imports of power).

These impacts are illustrated in Table 1, overleaf for a customer with average consumption in each customer category (combining all household customers into a single category)¹⁰.

The conclusions and recommendations of the KEMA consultant team were also made available to KEK JSC to assist it in the preparation of its tariff application.

¹⁰ These cost-reflective tariffs are calculated assuming that the new tariffs apply throughout 2007 and that total allowed revenues recovered are equal to those approved by the Board of ERO in its Decision No. D/29/2006.

Table 1: Impacts of adopting cost-reflective tariffs in 2007

Customer category	Average tariff (€/kWh) 2007	Split of revenues between charges								Ratio of average winter to summer charges	
		2006				2007				2006	2007
		Standin g	Demand	Energy	Reactive power	Standin g	Demand	Energy	Reactive power		
0. (110kV)	2.38	0%	48%	52%	0%	0%	23%	77%	0%	1.24	2.62
1. (35kV)	3.77	0%	41%	51%	8%	0%	24%	76%	0%	1.24	1.88
2. (10kV)	3.90	0%	44%	48%	7%	0%	23%	75%	2%	1.25	2.08
3. (0.4kV I)	5.37	0%	37%	58%	4%	0%	0%	95%	5%	1.33	1.53
4. (0.4kV II)	5.58	0%	21%	79%	0%	6%	0%	94%	0%	1.36	1.56
5-7 (Households)	5.37	0%	0%	100%	0%	6%	0%	94%	0%	1.27	1.49
8. (Street lighting)	5.13	0%	0%	100%	0%	2%	0%	98%	0%	1.00	1.00
All categories	5.14										

5 ERO proposed modifications

ERO has proposed two modifications to the cost-reflective tariffs developed by the KEMA consultant team. These are discussed below. The resulting proposed tariffs were also provided to KEK JSC to assist it in preparing its application.

5.1 Phasing in off cost-reflective tariffs

In their reports, the KEMA consultant team recommended that, given these large price adjustments, the new cost-reflective tariffs should be phased in over time. This would increase the acceptability of the new tariffs and reduce the risk that large increases in tariffs for some customers lead to further growth in non-collection rates.

The Board of ERO has accepted the recommendation that the new cost-reflective tariffs should be phased in over time. Consultants to ERO have proposed a mechanism to make the necessary adjustments in a non-discriminatory manner, as follows:

- Excessive increases in average household tariffs should be avoided. Within the household customer category, there will obviously be winners and losers, with some customers seeing increases or reductions in tariffs greater than the average for that category and some seeing increases or reductions that are less than the average.
- Where restricting increases to these levels implies a revenue shortfall, then a common adjustment factor is applied to all unrestricted tariffs (*Adjusted tariff i = Cost-reflective tariff i * Adjustment factor*).

5.2 Impacts of delayed effectiveness

The new retail tariffs will only take effect from 1st April 2007, rather than 1st January 2007 as originally expected. It is therefore necessary to estimate the total revenues earned under existing tariffs between 1st January 2007 and this date and, therefore, the resulting revenues to be recovered under the new tariffs between 1st April and 31st December 2007.

Consultants to ERO have carried out this calculation under the assumption that the split of consumption and demand between months in 2007 will follow that seen in previous years. Revenues recovered under existing tariffs between January and March 2007 are estimated at approximate €36.439 million. This leaves a total of €105.46 million to be recovered under the new retail tariffs over the remainder of 2007.

6 KEK JSC application

The proposed retail tariffs submitted by KEK JSC for non-household customers match those developed by the KEMA consultant team, adjusted to allow for gradual phasing-in of the new tariffs and their delayed effectiveness.

However, KEK JSC proposes major changes to the structure of household tariffs:

- All metered household customers (categories 5 and 6) would be moved to a single-rate tariff with seasonal differentials (a new customer category 5). KEK JSC considers that this will reduce incidences of meter tampering and errors. It will also reduce the costs of replacing existing meters where these fail to meet required specifications¹¹.
- There will be no blocks for metered household customers—energy will be charged at the same tariff irrespective of the level of consumption. This avoids problems of abuse of the current block system. KEK JSC has noted that it considers that it is the Government's, rather than the utility's, responsibility to manage social issues and that a rising block structure is an inefficient means, in any case, of ensuring affordability.

These changes would simplify the current tariff structure. However, they would also mean greater increases in average charges for smaller customers relative to larger customers.

The resulting proposed tariffs are shown overleaf, alongside the existing tariffs. A copy of this is also available separately on ERO's website.

¹¹ KEK JSC estimates that the cost of new single-rate meters is approximately two-thirds that of new meters with a time-of-use (TOU) facility.

Table 2: KEK JSC proposed retail tariffs

KEK JSC retail tariff application

Received on 19 February 2007

Tariff Group	Voltage level of supply	Tariff elements	Unit	Time-of-day (a)	Current		KEK JSC Application	
					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				33.78	
		Standing (demand) charge	€/kW		1,150.00	895.00	519.00	519.00
		Active energy (P), of which:	€/kWh	High tariff	2.68	2.11	6.03	1.78
		Low tariff	1.34	1.09	2.50	1.47		
		Reactive energy (Q)	€/kVAh		1.41	1.15		
1	35kV	Standing (customer) charge	€/customer/year				29.76	
		Standing (demand) charge	€/kW		1,278.00	959.00	540.00	540.00
		Active energy (P), of which:	€/kWh	High tariff	3.20	2.56	6.30	2.73
		Low tariff	1.60	1.28	3.33	2.46		
		Reactive energy (Q)	€/kVAh		1.28	0.96	0.04	0.04
2	10kV	Standing (customer) charge	€/customer/year				33.78	
		Standing (demand) charge	€/kW		1,278.00	959.00	466.00	466.00
		Active energy (P), of which:	€/kWh	High tariff	3.52	2.81	7.06	3.15
		Low tariff	1.76	1.41	3.81	2.87		
		Reactive energy (Q)	€/kVAh		1.28	0.96	0.32	0.32
3	0.4kV Category I (large reactive power consumers)	Standing (customer) charge	€/customer/year				28.56	
		Standing (demand) charge	€/kW		852.00	631.00		
		Active energy (P), of which:	€/kWh	High tariff	5.11	3.83	9.83	5.40
		Low tariff	2.56	1.92	6.15	5.08		
		Reactive energy (Q)	€/kVAh		1.28	0.96	1.53	1.53
4	0.4kV Category II	Standing (customer) charge	€/customer/year				33.78	
		Standing (demand) charge	€/kW		253.00	189.00		
		Active energy (P)	€/kWh	Single tariff	7.57	5.68	9.73	6.23
		Active energy (P), of which:	€/kWh	High tariff	9.47	6.94	11.05	6.35
		Low tariff	5.05	3.79	7.14	6.01		
5	0.4kV (domestic <800kWh/month)	Standing (customer) charge	€/customer/year				20.31	
		Standing (demand) charge (b)	€/kW		144.00	115.00		
		Active energy (P)	€/kWh	Single tariff	3.99	3.20	5.51	3.71
		Active energy (P), of which:	€/kWh	High tariff	4.80	3.83		
		Low tariff	2.40	1.92				
6	0.4kV (domestic >800kWh/month)	Standing (customer) charge	€/customer/year				All domestic customers move to a single tariff	
		Standing (demand) charge (b)	€/kW		192.00	144.00		
		Active energy (P)	€/kWh	Single tariff	6.39	4.80		
		Active energy (P), of which:	€/kWh	High tariff	5.11	3.83		
		Low tariff	2.56	1.92				
7	0.4kV (domestic unmetered)	Estimated consumption <400kWh/month	€/customer/month		20.00		23.00	
		Estimated consumption 400-800kWh/month	€/customer/month		36.00		42.00	
		Estimated consumption >800kWh/month	€/customer/month		61.00		71.00	
8	Public lighting	Standing (customer) charge	€/customer/year				33.78	
		Active energy (P)	€/kWh	Single tariff	8.21	6.31	7.82	7.82

a High Tariff applies 07:00-22:00 Monday-Saturday during the High Season and 08:00-23:00 Monday-Saturday during the Low Season

b Where no maxigraph is installed, the standing (demand) charge is calculated as energy volumes consumed under the High Tariff divided by 100.