ENERGY REGULATORY OFFICE

National Association of Regulatory Utility Commissioners
Energy Regulatory Partnership Program
Energy Regulatory Office and Illinois Commerce Commission
Third Partnership Activity

Regulatory modeling and pricing for electricity retail tariffs

Pricing and Tariffs Department

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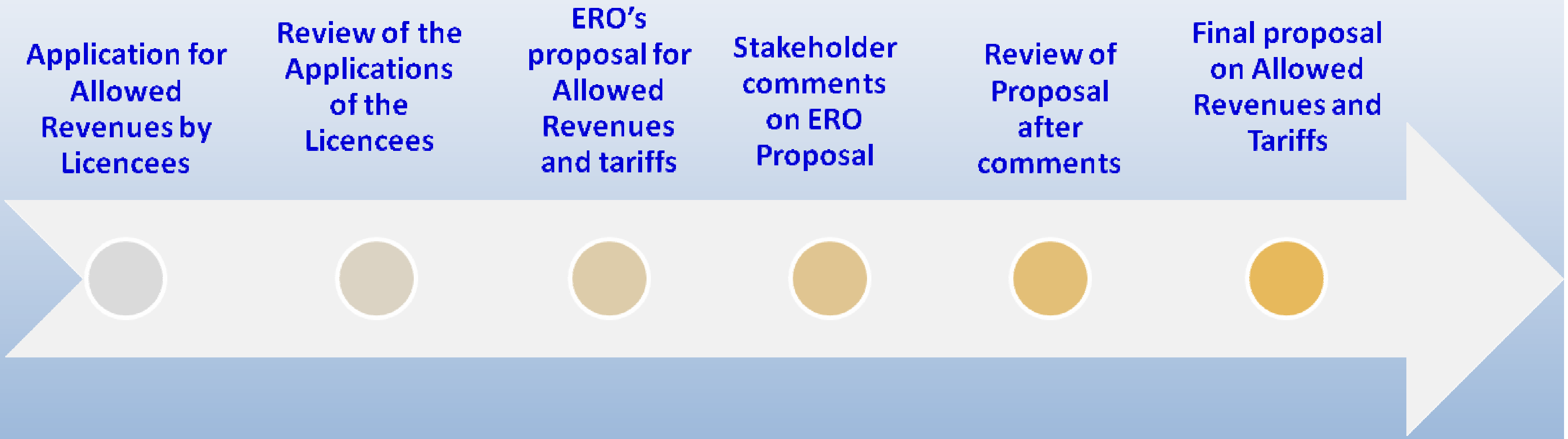
Third Electricity Tariff Review (ETR3) Process



Allowed costs and tariffs for each business

ERO sets revenues and tariffs based on the approved Tariff Methodology for KOSTT and KEK:

- **Mining (KEK);**
- **Generation (KEK);**
- **Transmission (KOSTT);**
- **Distribution (KEK);**
- **Public Supply (KEK);**
- **Administration (KEK) - (cost allocation by the businesses is done in proportion with the number of employees)**

Subsidies + Export + Costs of unregulated customers are deducted from allowed costs.

Methodology Overview

- **Allowed costs are determined for each business and KOSTT using a ‘building block’ approach**
    - ***Allowed costs = opex + depreciation + WACC * RAB***
- **(WACC: weighted average cost of capital / RAB: regulated asset base)**
- **Cost line items are individually reviewed – typically against actual levels and allowed levels in previous years**
- **ERO also establishes allowed levels of technical and commercial losses to be recovered from regulated tariffs (collection losses are excluded)**
- **KOSTT (as TNO) and KEK Networks are required to purchase transmission and distribution losses. They keep the savings from reducing losses below allowed levels (and pay the additional costs of losses exceeding allowed levels)**
- **A number of adjustments are applied for changes in costs outside the control of licensees. Where licensees fail to make investments for which funds were allowed, the difference is ‘clawed-back’**

Licensees' Application Review

- Kosovo Energy Corporation (KEK) requested an increase in allowed revenues of 19.8% on 2008 levels
- Transmission, System and Market Operator (KOSTT) requested an increase of 25% on 2008 allowed revenues
- ERO analyzed all categories of costs which were requested in the applications, prior to its proposal published in its Consultation Paper on March 3rd and 5th of 2009
- This was followed by an analysis of licensee and stakeholder responses and final proposals, published in a Response Paper
- All papers published are available from ERO's website

Tariff Setting Principles

- Law on the Energy Regulator, Article 46.2
  - Prices shall be reasonable, non-discriminatory, based on objective criteria, and determined in a transparent manner;
  - Prices shall be primarily dependent upon the justified costs, including nonrecoverable
  - Cross-subsidies of customer classes shall not be permitted;
  - Prices shall take into consideration customer protection and environmental concerns
  - Cross subsidies within vertically-integrated companies shall not be permitted

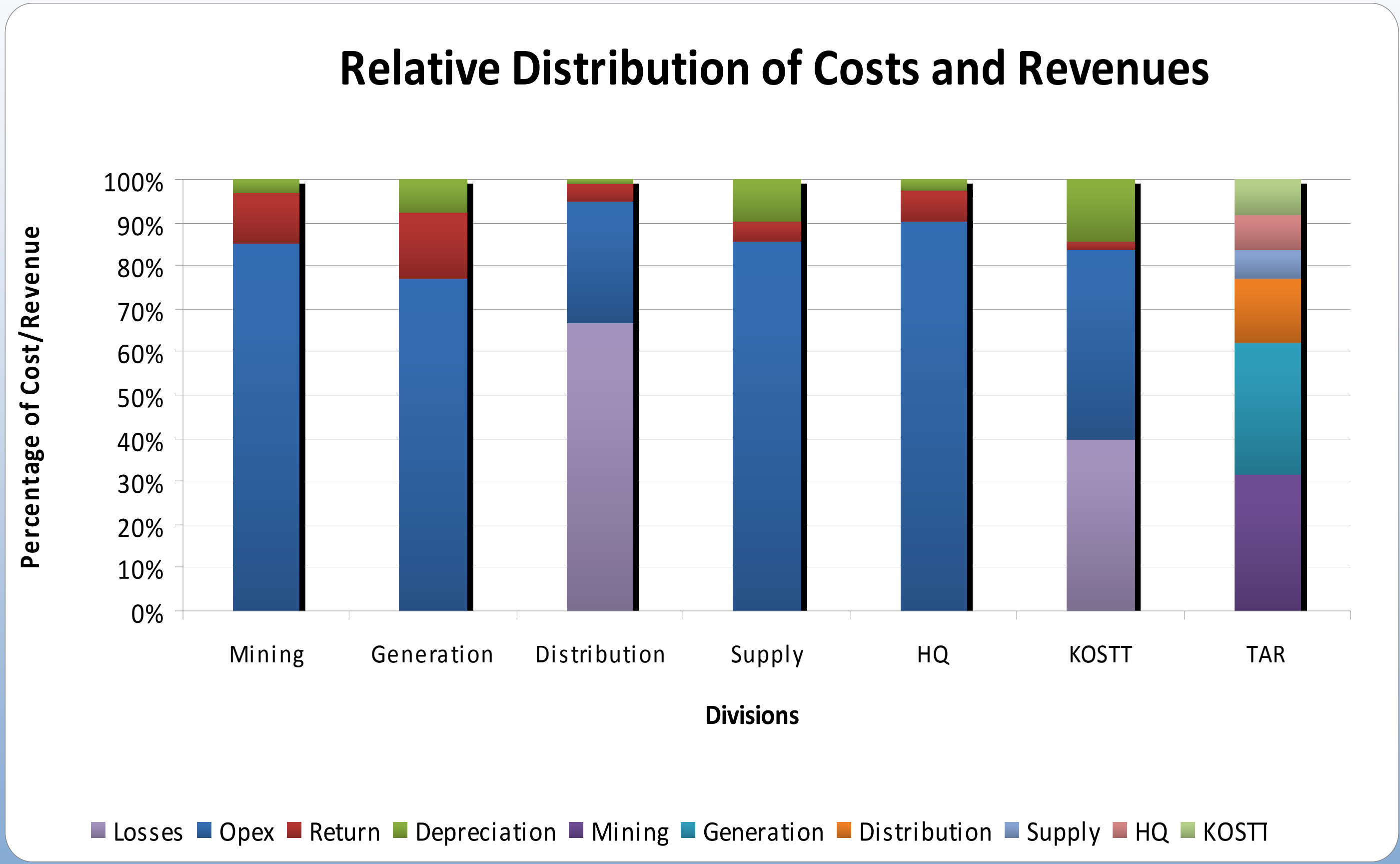
Introduction of Cost-Reflective Tariffs

- Cost-reflective tariffs are being implemented over an transition period, in order to minimize customer burden in the case of eliminating cross-subsidies within one year
- This allows for tariffs to be set at levels that are generally socially acceptable and avoids large changes in relative tariffs
- Critically, it also lowers the risk that large increases in household tariffs will result in lower collection rates, reducing total income overall

Calculation of Tariffs

- ERO has developed a Revenue and Tariffs Model to assist in calculating allowed tariffs
- The model calculates cost-reflective tariffs for each customer category, broken-down into
  - customer (standing) charges
  - energy charges
  - demand charges
  - reactive power charges
- The resulting tariffs are then adjusted to give acceptable tariffs meeting social concerns, while leaving allowed revenues unchanged
- The model also calculates TUOS and SMO charge
- DUOS charges and an implied wholesale power price from KEK's Generation business to its Public Supply business are calculated but not currently published
- These will become important as eligible customers increase and tariffs are unbundled

Distribution of Costs and Revenues



Summary of Allowed Revenues for 2009

Approved 2009 revenues

Regulated Retail Tariffs		2009
KEK (excluding cross-charges / including HQ costs)		
Mining	€000s	51,057
Generation	€000s	42,565
Network	€000s	23,891
Supply	€000s	10,407
Sub-total	€000s	***127,920***
KOSTT (excluding cross-charges)	€000s	11,867
Total (with subsidies deducted)	€000s	**139,787**
Distribution losses	-	-
Total Energy Entering Distribution	MWh	3,844,500.0
Technical	%	17.1%
	MWh	657,409.5
Non-Technical (Commercial)	%	20.0%
	MWh	768,900.0
Sales to Transmission non-eligible customers	MWh	146,300.0
Total Sales to Non-eligible customers	MWh	2,564,490.5
Average Tariff (with subsidies deducted)	euro/MWh	54.5

Efficient commercial revenues

Regulated Retail Tariffs		2009
KEK (excluding cross-charges / including HQ costs)		
Mining	€000s	51,057
Generation	€000s	42,565
Network	€000s	23,891
Supply	€000s	10,407
Sub-total	€000s	***127,920***
KOSTT (excluding cross-charges)	€000s	11,867
Subsidies	€000s	42,800
Total (with subsidies not deducted)	€000s	**182,587**
Distribution losses	-	-
Total Energy Entering Distribution	MWh	3,844,500.0
Technical	%	17.1%
	MWh	657,409.5
Non-Technical (Commercial)	%	0.0%
	MWh	0.0
Sales to Transmission non-eligible customers	MWh	146,300.0
Total Sales to Non-eligible customers	MWh	3,333,390.5
Average Tariff (without subsidies deducted)	euro/MWh	54.8

- **Average regulated tariffs for 2009 are 54.5/MWh**
- **This is almost equal to the average required for an efficient and fully commercial industry (with no commercial losses and no subsidies)**

Current Situation

- Registered social cases have their electricity bills paid by Government – but this help doesn't reach all vulnerable customers
- A rising block tariff is therefore applied for household customers, to ensure affordability for all vulnerable customers
- Three blocks are used
  - First block: <200 kWh/month. 30% discount on average residential tariff
  - Second block: 200-600 kWh/month. 10% discount on average residential tariff
  - Third block: >600 kWh/month. Set so total revenues from residential tariffs equal those allowed by ERO
- The first block is large relative to international comparators. This is because of the reliance on electricity for space heating in Kosovo

Developments in Tariffs

- To date, ERO has approved tariffs for 2007, 2008 and 2009. Reviews are undertaken annually given the large uncertainties in data and forecasts
- The 2007 tariffs decision marked the first change in tariffs since 1999. A major restructuring and rebalancing of tariffs was undertaken to begin the move to cost-reflective tariffs and unbundling of charges
- The 2008 and 2009 tariffs decisions have focused on adjusting allowed revenues to match increasing costs (due to rising import prices and major investment programmes)
  - 2008 regulated tariffs were on average 5% higher than those of 2007
  - 2009 regulated tariffs were on average 2.5% higher than those of 2008

Reaching Cost-Reflective Tariffs

- Achieving political and social acceptance for the elimination of cross-subsidies remains a major challenge. ERO plans to expand public education efforts in this field
- As part of ETR3, KEK proposed an alternative approach to determining cost-reflective tariff levels to that currently applied by ERO (essentially using embedded rather than marginal costs). This is under review by ERO
- The introduction of retail competition in line with the Energy Community Treaty will facilitate the introduction of cost-reflective tariffs – as existing cross-subsidies will be eroded
- ERO will need to develop appropriate ongoing social protection mechanisms to compensate for this future loss of cross-subsidies

Thank You