ELECTRICITY REGULATORY AUTHORITY

PART I

Sales to captive customers: tariff calculation methodology

Authority

This electricity sales tariff calculation methodology is developed according to the Law No.9072, dated 22.05.2003 "On Power Sector."

Purpose

The purpose of this methodology is to set sales tariffs to captive customers based on principles of tariff calculation evaluating the necessary data for a fair tariff.

Objective

The short-term objective of this tariff methodology is to provide a cost-based framework for calculating the price of electricity sold to captive customers, and facilitate the unbundling of generation, transmission, distribution, and supply activities. The long-term objective of this tariff methodology is to establish a tariff structure which complies with the Energy Community for South East Europe (ECSEE) Treaty.

1. Terms used in the methodology

Standard terms used in all tariff methodologies are defined in the Power Sector Law, the Market Rules, the Metering Code, the Transmission Code, and other secondary legislation approved by the ERE. Terms used in this methodology have the following meanings.

1.1 **Average tariff for sales to captive customers** – average revenue per kWh from sales to captive customers over a 12-month period, calculated as the total revenue from capacity-related charges, energy-related charges, and fixed monthly charges divided by the total kWh delivered to captive customers.

1.2 **Base year** – the 12-month period in which the sales tariffs approved by ERE are applied to monthly electricity bills to captive customers.

1.3 **Captive customers** – final customers who are not Eligible Customers.

1.4 **Delivery capacity** – an estimate of the total customer load in MW that can be reliably supplied by the distribution system during the base year.

1.5 **Differentiated tariffs** – tariffs for customer service that include capacity-related charges, energy-related charges, fixed monthly charges, and reactive power charges, related to the respective voltage level.

1.6 **First block of household consumption** – The initial block of kWh in the tariff for household customers on which a lower tariff is applied during one month.

1.7 **Regional Electricity Market** – a competitive electricity market operating in Albania, Austria, Bosnia-Herzegovina, Croatia, FYR Macedonia, Greece, Hungary, Montenegro, Romania, Serbia, Slovenia, and Turkey, based on the legal framework of EU Directive 2003/54/EC.

2. General regulations and basic principles

2.1 This methodology is developed in conformity with Law on Power Sector as well as other legal acts which are in force in the Republic of Albania and other secondary legislation approved by the ERE.

2.2 Sales tariffs are calculated by adding up the cost of each activity, to calculate the total cost of electric service. The separate tariffs or prices are:

a) PG - the Public Generation tariff, which consists of a price of firm generating capacity provided to the distribution/supplier company, and a price of energy provided to the distribution/supplier company. An off-peak energy price is optional.

b) T - the Transmission use of network tariff, which consists of a capacity charge, an energy charge, a fixed monthly charge, and an ancillary services charge

c) D – the Distribution use of network tariff, which consists of a price of capacity, a price of energy, and a fixed monthly charge. The capacity and energy prices are used to compute the customer's bill when the customer has a meter that measures both active power in kW and active energy in kWh. For all other customers the price per kWh reflects the sum of energy-related costs and capacity-related costs.

d) I – prices for imported electric energy and energy purchased from independent power producers and small power producers

e) S – the Public supply fee, which covers the cost of customer billing and collection, selecting the optimal mix of generation and imports, conducting tenders for imported electricity, negotiating contracts with independent power producers, filing tariff applications, and fulfilling other supply-related responsibilities of the distribution/supplier company.

f) A – an adjustment for bad debts, non-technical losses, and expenses related to meter inspection, collections, public information programs, litigation, and other activities needed to reduce the level of bad debts and non-technical losses

2.3 When capacity and energy charges are separately identified, the prices for PG, T, D, and S will change only slightly from year to year. Variations in sales tariffs are caused mainly by variations in the amount of hydroelectric energy produced by the Public Generating Company, and variations in the price of imported electric energy.

2.4 Sales tariffs can be calculated for four customer groups:

a) Household customers at Low Voltage. For each household customer, monthly sales are divided into two blocks, 1st block and 2nd block.

b) Non-household captive customers at High Voltage, i.e., customers with a direct connection to transformers 110/x kV

c) Non-household customers at Medium Voltage

d) Non-household customers at Low Voltage.

2.5 Cross-subsidies among these four customer groups should be eliminated, if possible, by calculating tariffs for each group that accurately reflect the true economic cost of electricity service. The average sales tariff for customers at 110/x kV transformers, the average sales tariff for medium voltage customers, and the average sales tariff for low voltage customers should be calculated so that they cover the true cost of service, including the cost of access to the distribution network. However, the first block of household energy consumption may be cross-subsidized by the second block of household energy consumption.

2.6 Within each of the three groups of non-household customers, the ERE may create customer subgroups and set different tariffs for each subgroup. The sales tariff may include customer subgroups for which the cost of service is not calculated and tariffs are not based on the true cost of service. However, the average revenue per kWh for each of the three groups of non-household customers should accurately reflect the true economic cost of service, on a forecast basis. ERE should aim to set sales tariffs so that the total annual revenue collected from household customers equals the true cost of service to household customers.

2.7 The tariff for the first block should be set by the ERE to achieve social objectives i.e. to protect low-income household customers from high electricity prices. The tariff for the first block of household energy consumption may be set by the ERE at a level that is below the true economic cost of service, if the tariff for the second block is raised for the purpose of producing the revenue needed to subsidize the first block. The price of energy consumption in the first block should be adjusted once a year, on the basis of forecast data, to compensate for inflation. It may also be increased to ensure security of supply of energy from the PGC, if ERE determines that such an increase is justified

2.8 The tariff for the second block of household consumption must equal or exceed the true economic cost of service. It should be adjusted once a year, on the basis of forecast data.

2.9 The tariffs for High Voltage, Medium Voltage, and Low Voltage non-household energy consumption should be adjusted quarterly on the basis of changes in the amount of hydroelectric energy produced by the PGC, changes in import prices, and the level of the cumulative surplus or deficit associated with the difference between actual and forecast costs of generation and imports. On a quarterly basis, the tariffs for High Voltage, Medium Voltage, and Low Voltage non-household energy consumption should have a tendency to follow changes in the average price of electric energy in the Southeast Europe regional electricity market.

2.10 Non-technical losses are the responsibility of the distribution/supplier company. Eligible customers should not have any non-technical losses, and should not pay for non-technical losses. The T and D charges for access to the network should include an allowance for technical losses, but not for non-technical losses.

2.11 The tariffs shall be based on costs that would be incurred by a well-managed supply company which tries to make prudent investments and avoid wasteful expenditures. When setting the tariff, ERE has the right to investigate the cost levels reported by the supply company, and compare its unit costs against other similar companies.

2.12 If a distribution company is a distribution/supplier company, distribution activity and supply activity must be completely unbundled from an accounting standpoint.

2.13 The sales tariff methodology for non-household customers is intended to support the development of a Regional Electricity Market. If the ECSEE Treaty enters into force, this methodology should be updated to ensure that it complies with the EU *acquis communautaire* for energy.

3. Sales tariff for the first block of household consumption

3.1 The tariff charged by the distribution/supplier company for the first block of household consumption is set by the ERE. This tariff may be adjusted for inflation. Otherwise, it should not change unless the ERE determines, after a public hearing, that there is a need to change it to ensure the long-term security of supply of energy from the PGC.

3.2 For 2005 the number of kWh in the first block of household consumption is 210 kWh. This figure may be adjusted by the ERE once a year.

3.3 The public generating company will provide the distribution/supplier company with energy and firm generating capacity needed to meet the first block of household consumption, before providing energy and firm generating capacity for any other purpose or any other customer group. Therefore in this methodology it is assumed that no imports and no electric energy from IPPs or SPPs is needed to provide energy for the first block of household consumption.

3.4 The average cost per kWh of electricity in the first block of household consumption consists of the following components:

$$\mathbf{AC}_{\mathbf{1st\ block}} = \mathbf{G + T + D + S - CS_1}$$

$\mathbf{AC}_{\mathbf{1st\ block}}$ - average cost of electricity sold to household customers, in the first block; measured in leke/kWh

G - cost of generation, calculated from the PGC tariff

T - cost of transmission, calculated from the transmission tariff

D - cost of distribution, calculated from the distribution tariff

S - public supply fee

CS_1 - cross-subsidy received by the first block of household consumption

3.5 The value of **S** will be set by the ERE once a year, on the basis of an application submitted by the distribution/supplier company.

3.6 G includes a capacity charge and an energy charge. The annual payment associated with the capacity charge is fixed regardless of hydrological conditions, and therefore average revenue per kWh for G will be higher during dry years. The G component of the tariff may be adjusted on the basis of the difference between the actual and forecast hydropower generation in the previous year.

3.7 If **$AC_{1st\ block}$** is greater than the tariff for the first block, on a forecast basis, the tariff for the second block must be increased to provide a subsidy for the first block.

4. Sales tariff for the second block of household consumption

4.1 The average cost per kWh of electricity in the second block of household consumption consists of the following components:

$$AC_{2nd\ block} = G + I + T + D + S + A + CS_2$$

$AC_{2nd\ block}$ - average cost of electricity sold to household customers, in the second block; measured in leke/kWh

G - cost of generation, calculated from the PGC tariff

I - the amount that must be added to G to cover the cost of imports, purchases from IPPs, and purchases from SPPs

T - cost of transmission, calculated from the transmission tariff

D - cost of distribution, calculated from the distribution tariff

S - public supply fee

A - adjustment for bad debts, non-technical losses, and expenses related to meter inspection, collections, public information programs, litigation, and other activities needed to reduce the level of bad debts and non-technical losses

CS_2 - cross-subsidy paid out by the second block of household consumption for the first block

4.2 The tariff for the second block equals the average cost, calculated according to forecast data for G, I, T, and D. This tariff is set once a year, for each distribution/supplier company, based on applications submitted by each distribution/supplier company.

4.3 The generation and import component of the tariff may be adjusted on the basis of the level of the cumulative surplus or deficit associated with the difference between the actual and forecast cost of generation and imports in the previous year.

4.4 The value of **S** will be set by the ERE once a year, on the basis of an application submitted by the distribution/supplier company.

4.5 It may be possible for the PGC to meet all of the energy needs of the distribution/supplier company. In this case, the forecast data may result in a value of **I = 0**

4.6 If ERE approves of a surcharge to cover non-technical losses, that surcharge may be included in **A** on the basis of an allowable level of non-technical losses, set by ERE. If non-technical losses are attributable to Low Voltage customers then the surcharge should be applied to Low Voltage customers without discrimination between household and non-household customers.

4.7 If ERE approves of a surcharge to cover bad debts, that surcharge may be included in **A**. If bad debts are attributable to Low Voltage customers then the surcharge should be applied to Low Voltage customers without discrimination between household and non-household customers.

5. Sales tariffs for non-household customers

5.1 At each voltage level, the average cost per kWh of electricity sold to non-household customers consists of the following components:

AC = G + I + T + D + S

AC - average cost of electricity sold to non-household customers; measured in leke/kWh

G - cost of generation, calculated from the PGC tariff

I - the amount that must be added to G to cover the cost of imports, purchases from IPPs, and purchases from SPPs

T - cost of transmission, calculated from the transmission tariff

D - cost of distribution, calculated from the distribution tariff

S - public supply fee

5.2 The value of **S** will be set by the ERE once a year, on the basis of an application submitted by the distribution/supplier company.

5.3 The tariff equals the average cost, calculated according to forecast data for G, I, T, and D. The tariff is calculated once a year, for each distribution/supplier company, based on applications submitted by each distribution/supplier company. Prior to the

beginning of the 2nd, 3rd, and 4th calendar quarters the G and I component of the tariff should be recalculated by suppliers based on the latest projections of G and I, and based on the differences between actual and forecast G and I in the previous quarter. This recalculation of G and I is automatically pre-approved by the ERE but subject to the ERE review. In other words, any amounts found to be excessive shall be refunded to non-household customers through an adjustment to G and I in the following calendar quarters, in accordance with a decision issued by the ERE.

6. Peak and off-peak energy charges

6.1 A distribution/supplier company may propose a sales tariff with peak and off-peak energy charges, in leke/kWh, to reflect the difference between in the value of I during peak hours and the value of I during off-peak hours. If the Public Generating Company has a significant level of thermal generation, a distribution/supplier company may propose a sales tariff with peak and off-peak energy charges, in leke/kWh, to reflect the difference between in the value of G during peak hours and the value of G during off-peak hours.

6.2 The definition of peak and off-peak time periods shall be decided by the ERE on the basis of a proposal submitted by the TSO.

7. Calculation of the average tariff for sales to captive customers

7.1 The average tariff for sales to captive customers for a 12-month period equals the level of revenue from sales to captive customers, divided by the amount of energy sold to captive customers.

7.2 The average supply tariff may be calculated for any 12-month period. The monthly data may be forecast or historical or a combination of forecast data for future months and estimated data for recent months. In a tariff application the average tariff should be calculated for the coming year based on forecast values.

8. Deadlines

8.1 Based on this methodology, the supply company shall submit to the ERE a request for the approval of new tariffs, no later than 6 months before the day that the new proposed tariffs are required to enter in force.

8.2 The supply company shall submit to the ERE data on previous year costs and average tariffs (prices) according to the sale structure, within April of the next year.

8.3 ERE shall examine these data within May, and if deviations from the approved costs and tariffs (prices) that impair the customers are evidenced, the ERE shall decide on the company reimbursements for the next year.

9. Final provisions

The Sales to Captive Customers Tariff Calculation Methodology was approved by ERE's Board of Commissioners on June 24, 2005.