

Pursuant to Articles 4.2 and 4.8 of the Law on Transmission, Regulator and Electricity System Operator in Bosnia and Herzegovina ("Official Gazette BiH", No. 7/02, 13/03, 76/09 and 1/11), Article 14 of the Statute of the State Regulatory Commission for Electricity ("Official Gazette BiH", No. 41/03 and 59/04) and Article 42 of the Rules of Practice and Procedure ("Official Gazette BiH", No. 2/05), at its session held on 26 October 2011, the State Electricity Regulatory Commission adopted:

## **METHODOLOGY**

### **FOR DEVELOPMENT OF TARIFFS FOR SERVICES OF ELECTRICITY DISTRIBUTION IN BRČKO DISTRICT OF BOSNIA AND HERZEGOVINA**

#### **CHAPTER I GENERAL PROVISIONS**

##### **Article 1**

##### ***(Objective)***

This document shall determine the tariff pricing methodology for services of electricity Distribution (hereinafter: Methodology) in the Brčko District of Bosnia and Herzegovina.

##### **Article 2**

##### ***(Methodology Approach)***

- (1) The methodology is based on the mechanism of regulated prices for the use of an electricity distribution system, applying the method of regulation "cost plus" through which the special revenue requirement on an annual basis, that is, the price that enables coverage of justified business costs as well as an appropriate rate of return for licensed assets is determined for an energy facility that performs the activities of electricity distribution.
- (2) The revenue requirement for an energy entity is allocated to tariff elements based on:
  - a) The planned energy values, structure and value of power facilities, and
  - b) The proportion of variable and fixed costs to the total costs of the energy entity.

##### **Article 3**

##### ***(Terms and Abbreviations)***

- (1) Terms and abbreviations used in this Methodology shall have the following meanings:

**Allocation of Costs** Allocation of transmission costs (electricity transmission services, ISO operation and ancillary services) and distribution of electricity to tariff elements, consumption categories and customer groups.

**Consumption Category** Division of end electricity customers based on voltage level at the place of delivery, characteristics of consumption and intended use of electricity.

**End Customer/Customer** A customer that buys electricity for its own purposes.

**Eligible Customer** A customer that is connected to a transmission or distribution network who is allowed to purchase electricity at its own choice.

**Licensed Assets** Permanent (tangible and nontangible) assets used to carry out electricity-related activities (distribution and supply) for whose performance one needs to have SERC license.

**Origin of the Cost** Physical or other origin in the regulated entity where a specific cost occurs.

**Ineligible (tariff) Customer** Electricity customer connected to a distribution network who buys electricity in a regulated manner and at regulated prices.

**Billing Capacity** A tariff element used to measure and express distribution capacity, necessary to meet the maximum load of the customer in any moment during the calculation period.

**Distribution System Operator** Legal or natural person that has a license for operation, management, maintenance and development of a distribution system in a specific area.

**Revenue Requirement** Amount of revenues necessary for an energy entity to cover all justified costs that were incurred during performance of a regulated activity with an appropriate rate of return for assets.

**Regulated Activity** Electricity activity for which it is necessary to have a license issued by the Regulator in accordance with the Law.

**Regulated Prices** Prices of products and services in the public service obligation system determined by the Regulator.

**Regulated Entity** The Company that performs one or more power-related activities as determined by the Law.

**Supply** Sale of electricity to customers, including resale.

**Electricity Supplier** User of the license for supply of customers with electricity.

**Tariff Elements** Billing elements for a tariff system used to express the consumption of a regulated entity and calculate the price of the consumption

**Tariff System** The system of criteria and rules that contains: tariff elements, manner of their application in certain daily intervals and seasons for consumption categories and customer groups and tariffs for calculation of the price of the transferred, distributed and consumed electricity.

**Tariff** Tariff elements applied to customer groups for different daily intervals and seasons with corresponding unit prices.

## Abbreviations

AD - value of accumulated depreciation of the fixed assets

C – value of the total distribution network capacity

$C_D$  - costs of depreciation

$C_{O\&M}$  - costs of operation and maintenance

$C_1$  – costs of covering of electricity losses in the distribution system

$C_i$  – value of distribution network capacity for voltage level  $i$

DI (%) - debt interest

DP - debt part, value of liabilities from the balance sheet

EP - equity part, value of capital from the balance sheet

GA - value of granted assets

KM - convertible mark

kV - unit for voltage (1 kV = 1000 V)

kvarh - unit for reactive energy (1 kvarh = 1000 varh)

kW - measurement unit for active power (1 kW = 1000 W)

kWh - measurement unit for energy (1 kWh = 1000 Wh)

$P_C$  - peak load measured at a customer

$P_E$  - price at the bus bar of the generation unit delivering regulated energy

$P_i$  – total non-coincident peak load of all customers connected to voltage level  $i$

$P_d$  – average electricity procurement price for the demand of customers from the category of households

$P_L$  - price of electricity to cover losses in the distribution network

$P_R$  - price of excessive take-off of reactive energy

$P_E$  – price at the threshold of a generation unit that delivers electricity

$P_d$  – average electricity procurement price for the supply of a category of households

$P_{wi}$  – average price of the tariff element for active energy on voltage level  $i$

PV - purchase value of fixed assets

$r$  – justified amount of electricity losses in a distribution system

RR - revenue requirement for performance of the regulated activity (service) of electricity distribution

RR<sub>d</sub> – the amount of revenue requirement for performance of the regulated activity of distribution reduced by the value of losses on a distribution network

RR<sub>i</sub> – part of the revenue requirement allocated to voltage level  $i$

RR<sub>wi</sub> – value of losses on a distribution network allocated to voltage level  $i$

R<sub>OTH</sub> - other revenues related to the regulated activity

RAB - regulatory asset base

ROA - return on assets

ROE(%) - return on equity

T(%) - effective tax rate on profit

TC - total capital from the balance sheet

W<sub>C</sub> – electricity planned for supply of end customers connected to the distribution system

W<sub>i</sub> - total consumption of all customers connected to voltage level  $i$

W<sub>L</sub> - electricity quantities necessary for compensation of losses in the distribution system

W<sub>Li</sub> - distribution losses on voltage level  $i$

WACC - weighted average cost of capital

WC - value of working capital.

- (2) Other terms used in this methodology have the same meaning as in the Law on Transmission, Regulator and Independent System Operator in Bosnia and Herzegovina (hereinafter: the Law).
- (3) In calculations according to the formulas prescribed in this methodology, all values that are given as percentages are divided by 100.

## **CHAPTER II DETERMINING OF REVENUE REQUIREMENT**

### **Article 4** ***(Revenue Requirement)***

- (1) Necessary revenue requirement of a regulated entity is calculated individually for each electricity-related activity based on justified business costs and based on the appropriate rate of return on the assets employed in performance of the regulated activity.
- (2) An estimate of a justification of costs is done according to the nature of the costs by a review of their purpose, checking of quantities and the price that caused the cost, benchmarking of the costs of the regulated entity based on the historical data and costs

of entities that perform the same electricity-related activity in the country or in neighboring countries.

- (3) The components of the revenue requirement are:
  - a) Costs of operation and maintenance,
  - b) Costs of depreciations of fixed assets,
  - c) Approved rate of return,
  - d) Taxes, contributions and other law-prescribed fees.
- (4) The costs of the performance of the regulated activity are contained in the income statement of the regulated entity and they reflect cash and non-cash costs that were incurred in order to ensure outputs that were realized in the billing period.
- (5) The State Electricity Regulatory Commission (SERC) approves justified costs for the performance of a regulated activity using the data given in the balance sheet of the regulated entity in the base year.
- (6) The revenue requirement and the tariffs based on it are determined for the regulated distribution activity (distribution tariffs), which includes the costs of electricity transmission, work of the Independent System Operator in BiH and ancillary services.
- (7) In the course of approving the revenue requirement SERC will take into account the special characteristics of the actual arrangement through which the regulated entity procured the electricity.

**Article 5**  
***(Calculation of Revenue Requirement)***

- (1) The revenue requirement of the regulated entity for performance of the activity of electricity distribution shall be determined pursuant to the following formula:

$$RR = C_{O\&M} + C_D + (RAB \times WACC) - R_{OTH} + C_L$$

where:

$C_{O\&M}$  – costs of operation and maintenance,

$C_D$  – costs of depreciation,

RAB – regulatory asset base,

WACC – weighted average cost of capital,

$R_{OTH}$  – other revenues related to the regulated activity,

$C_L$  – costs of covering of electricity losses in the distribution system.

- (2) In case of deviation from the planned scope of services, the revenue requirement for the following billing period will be adjusted.
- (3) The costs that relate to performance of the non-regulated activities are not subject to regulation and are excluded from the regulated revenues.

**Article 6**  
***(Operation and Maintenance Costs)***

The costs of operation and maintenance (operational costs) represent justified costs that occurred in the course of performance of the energy activity of distribution and management of the distribution system for electricity, and consist of:

- a) costs of materials,
- b) costs of fuel and energy sources,
- c) costs of salaries, contributions and other personal expenses,
- d) costs of generation services and costs of non-generation services, including the regulatory fee,
- e) non-material costs,
- f) other costs and expenditures that occurred in the course of business of the regulated entity.

**Article 7**  
***(Depreciations Costs)***

- (1) Depreciation costs represent the costs of depreciation of assets used for performance of the licensed activity of electricity distribution, whereby the costs of depreciation include the costs of depreciation of the assets procured with no fee.
- (2) The depreciation costs include the costs of depreciation of the existing assets in the beginning of the billing period and the costs of depreciation of the assets that will be activated in the billing period.
- (3) The calculation of depreciation is done in accordance with the adopted accounting policies defined by the Rule on Accounting or another internal act, which is harmonized with legislation and the applicable international accounting standards. The amount of depreciation cost obtained in this way is recognized in the course of determining of revenue requirement.

**Article 8**  
***(Common Operational Costs, Assets, Depreciation Costs and Other Revenues)***

- (1) Common operational costs are those operational costs that were incurred in order to enable the functioning of the regulated entity that performs two or more energy-related activities or that performs another activity in addition to the energy-related activity and which cannot be directly tied to any specific origin of the cost.
- (2) Common costs are the costs of the regulated entity which are necessary for the functioning of an entity that performs two or more energy-related activities or that performs another activity in addition to the energy-related activity, and which cannot be directly allocated to individual regulated activities (non-tangible investments except for *goodwill*, real estate, plant and equipment).
- (3) Common depreciation costs are the costs of depreciation of common assets that were incurred in order to enable the functioning of the regulated entity that performs two or

more energy-related activities or that performs another activity in addition to the energy-related activity and which cannot be directly tied to any specific origin of the cost.

- (4) Common other revenues are other revenues that were realized by employment of the common assets of the regulated entity that cannot be directly allocated to individual activities.
- (5) Common operational costs, assets, depreciation costs and other revenues are allocated to the energy-related activity for which the revenue-requirement is being determined, in accordance with this methodology (electricity distribution) and to other electricity-related and other activities, based on transparent rules (keys) determined in accordance with accounting standards and objective criteria.

### **Article 9**

#### ***(Accounting Unbundling of Regulated Activities)***

- (1) A regulated entity must perform accounting unbundling and submit a report listed by segments for each regulated activity, for other activities and common business.
- (2) A regulated entity with a license for supply that provides services to eligible and non-eligible customers must perform accounting unbundling of the activities with eligible and non-eligible customers.

### **Article 10**

#### ***(Regulatory Asset Base)***

- (1) Regulatory Asset Base (RAB), as the base for calculation of a rate of return consists of permanent assets and necessary amount of permanent operational assets.
- (2) The regulatory asset base includes the procurement value of fixed assets reduced by accumulated depreciation and increased by the value of permanent operational costs necessary for regular operations.
- (3) All assets that were free, such as donations, transfer of assets without charge, participation of citizens in construction, etc., will not be included in the regulatory asset base.
- (4) A regulated entity must keep a record of all assets received without charge and of donations for basic assets, on their fair value, calculation of depreciation and bookkeeping value and write-off of assets.
- (5) The value of permanent operational assets that is included in the regulatory asset base (operational capital) is equal to net working capital and is calculated as the difference between total operational assets and total obligations with a payment due date of up to one year.
- (6) For the purpose of calculation of the revenue requirement the regulatory asset base is determined pursuant to the following formula:

$$\text{RAB} = \text{PV} - \text{AD} - \text{GA} + \text{WC}$$

where:

PV - purchase value of fixed assets,

AD - value of accumulated depreciation of the fixed assets,

WC - value of working capital,

GA - granted assets.

- (7) The regulatory asset base can include only those assets that are used for performance of the regulated activities that are in SERC's jurisdiction (licensed assets).
- (8) Investments in basic assets are estimated and justified in accordance with the objective of maintaining the necessary scope and quality standard for the services within the regulated activity.
- (9) For determining the justifiability of each single investment into the basic assets which is done within the regulated activity, SERC will check the following:
  - a) Justifiability of the investment from the aspect of quality improvement and security of supply, all in accordance with the predicted increase of consumption,
  - b) Technical, technological, economic and other parameters and indicators of justifiability and efficiency of investments, and
  - c) Harmonization of investments with the existing development programs (plans).
- (10) SERC can decide to do an audit of the regulatory asset base. With the view of establishing as realistic tariffs as possible, an audit of the regulatory asset base can be done in any tariff proceedings.

**Article 11**  
**(Return on Assets)**

- (1) Return on assets shall be calculated based on the regulatory asset base and the weighted average cost of capital:

$$ROA = RAB \times WACC$$

where:

*ROA* – return of assets,

*RAB* – regulatory asset base,

*WACC* - weighted average cost of capital.

- (2) In calculation of the weighted average cost of capital the relationship between capital and liabilities from the balance sheet will be taken into account.
- (3) The weighted average cost of capital represents the weighted average of rate of return on own capital and weighted average rate of return on borrowed capital:

$$WACC(\%) = \frac{EP}{TC} \times \frac{ROE}{1 - \frac{T}{100}} + \frac{DP}{TC} \times DI$$

where:

*EP* – value of capital (value of capital from balance sheet),

*DP* – value of liabilities (debt) (value of liabilities from balance sheet),

*TC* – value of assets from balance sheet,

*ROE* (%) – return on capital,

*DI* (%) – costs of liabilities (debt),

*T* (%) – effective income tax rate.

- (4) WACC shall be calculated on the basis of the ratio between the capital and liabilities during the test year. The SERC may determine the planned (projected) ratio between capital and liabilities, which shall be used for calculation of the weighted average cost of capital.
- (5) A realistic rate of return on capital after taxes should reflect the specific risk of a company, the risk of a country and prevailing conditions for acquiring capital in a financial market.
- (6) The SERC approves the rate of return on capital.
- (7) Borrowed capital (liability) in the sense of this subsection represents the sum of long-term liabilities and short-term financial liabilities that finance regulated assets.
- (8) The cost of debt (borrowed capital) is calculated as an average realistic interest rate to total borrowed assets, whereby the share of specific borrowed assets to total borrowed assets is weighted. The cost of debt is recognized up to the level of price of carefully and rationally financed assets.

## **Article 12** ***(Costs for Recovery of Losses)***

- (1) The amount of costs for the recovery of electricity losses in a distribution system shall be determined pursuant to the following formula:

$$C_L = W_L \times p_L$$

Where:

$C_L$  – costs for recovery of costs for electricity losses in the distribution system for electricity,

$W_L$  – quantity of electricity needed for recovery of losses in the distribution system for electricity (kWh),

$p_L$  – price of electricity for recovery of losses in the distribution system for electricity (pf/kWh).

- (2) The quantity of electricity needed for recovery of losses in the distribution system is calculated pursuant to the following formula:

$$W_L = W_C \times \frac{r}{1 - r}$$

Where:

$W_c$  – electricity planned for delivery to end customers connected to the distribution system (kWh),

$r$  – justified rate of electricity losses in the distribution system (%).

- (3) The justified rate of electricity losses in the distribution system is determined on the basis of loss rates realized in the previous three years as a minimum, the analysis of system status, benchmarking of implemented loss rates by energy undertakings that perform the same activity in the region and plan for the reduction of losses and measures for its implementation.
- (4) The price of electricity for covering losses is the price determined on the basis of the weighted average costs for electricity procurement by the energy undertakings performing the activity of electricity trade for the purpose of supplying customers in the Brčko District BiH and the total procured electricity on an annual basis.

### **Article 13** ***(Other Revenues)***

Other revenues, except the revenue collected based on distribution of electricity, are revenues realized by employing assets earmarked to perform a regulated activity, such as: revenues from the sale of byproducts and services, revenues from activation of results and goods, revenues from the sale of assets and other revenues.

### **Article 14** ***(Connection to Distribution Network)***

- (1) In accordance to the principle of universal and fair access to electricity, the price of connection and/or increase of connection capacity for existing consumers as a one-off amount for the benefit of a licensee for distribution activity must be based on connection costs and taken into account in an appropriate manner while determining the revenue requirement for a regulated undertaking.
- (2) A new customer shall be obligated to pay the costs for the connection to the distribution network in accordance to the General Conditions for Electricity Supply in Brčko District BiH.
- (3) An existing customer that increases its capacity requiring modification of physical characteristics for the connection to the network shall be obligated to pay the costs for modification of connection to distribution network in accordance to the General Conditions for Electricity Supply in Brčko District BiH.

### **Article 15** ***(Power Balance in Distribution Network)***

- (1) A regulated undertaking performing the activity of electricity distribution shall be obligated to submit to SERC the power balance made on the basis of planning and historical data elements.
- (2) The power balance contains electricity flows in the distribution network on an annual and monthly level, such as: electricity take-on from the transmission network, take-on

from other distribution systems, generation on the distribution network, delivery to other distribution systems, electricity losses by voltage levels and consumption of final categories by consumption categories and groups.

- (3) The above balance must be harmonized with an annual power balance that is done by the Independent System Operator in BiH.

### **CHAPTER III TARIFF SYSTEM FOR DISTRIBUTION OF ELECTRICITY**

#### **Article 16** *(Structure of Tariff System)*

The structure of the tariff system for distribution of electricity in the Brčko District BiH shall be comprised of:

- a) The tariff elements that measure the effects of regulated undertakings for the purpose of their connection with the costs,
- b) The categories of costs that are determined depend on: voltage at the electricity delivery point, capacity characteristics, consumption purpose, the manner of metering and other categories within which groups of customers are formed,
- c) Daily and seasonal time intervals for application of different tariff elements for each consumption category and group of customers depending on costs caused to the electricity system in that period by the manner and the structure of electricity consumption,
- d) The tariff rates for the calculation of electricity represent the implementation of tariff elements and they are set for each consumption category in a specific daily interval and season with associated unit prices.

#### **Article 17** *(Tariff Elements)*

The tariff elements are:

- a) Active electric power, expressed in kWh,
- b) Excessive take-on of reactive power, expressed in kvarh,
- c) Billing demand, expressed in kW for billing period,
- d) Fixed fee by metering point, expressed in KM.

#### **Article 18** *(Consumption Categories)*

The consumption categories are:

- a) Consumption at voltage level 35 kV (take-on of electricity at voltage levels 35 kV and higher, including voltage level 35 kV),
- b) Consumption at voltage level from 1kV to 35 kV (take-on of electricity at voltage levels from 1 kV to 35 kV, including voltage level 1 kV),
- c) Consumption at voltage level (take-on of electricity at voltage level less than 1 kV):

- 1) Consumption in households includes consumption of electricity in flats, residential houses and weekend houses, consumption for illumination of the associated premises for household, garage, access to residential buildings, staircase lighting, elevators and common devices,
- 2) Public lighting includes electricity for illumination of streets, squares, roads, bridges, tunnels on roads, pedestrian zones, signal devices, parks and historic monuments,
- 3) Other consumption is the consumption taken-on at low voltage, which is not the consumption in household or public lighting.

**Article 19.**  
***(Customer Groups)***

The groups of customers within specific categories shall be determined as follows:

- a) According to the manner of metering of delivered active electricity (customers with a single tariff meter, customers with a double tariff meter and controlled consumption customers),
- b) According to the manner of metering and determination of billing demand,
- c) According to other criteria that show that the costs caused by the customers for the electricity system are different.

**Article 20**  
***(Tariff Rates)***

- (1) The tariff rates are determined individually for seasons, the time of day and for categories of consumption according to voltage levels at which electricity is being taken.
- (2) The tariff rates according to season are higher (VS) and lower (NS), and their ratio is determined in the amount of 1.5:1.
- (3) The tariff rates according to the time of day are higher (VT) and lower (MT), and their ratio is determined in the amount of 2:1.
- (4) A regulated undertaking may propose to introduce, eliminate or modify any category of consumption, customer group, duration and mutual relationship of seasonal and daily rates, and a final decision shall be issued by the SERC.

**Article 21**  
***(Active Electricity)***

- (1) Active electricity shall be determined by metering by means of an electric meter for active electricity, and it is expressed in kWh (kWh).
- (2) Each customer connected to the distribution network must have an appropriate device for registration of take-on active electricity in accordance to the General Conditions for Electricity Supply and Distribution Grid Code for the Brčko District BiH.

**Article 22**  
***(Billing Demand)***

- (1) Billing demand is determined for the billing period (month) in one of the following ways:
  - a) Metering of peak load when the customer, in accordance to the General Conditions for Electricity Supply in the Brčko District BiH, has an appropriate metering device,
  - b) By means of a device for limitation of capacity (electricity),
  - c) On the basis of consumed active electricity,
  - d) On the basis of analysis of system load and load research for consumption categories and groups of customers.
- (2) Peak load is the biggest registered capacity in a time interval of 15 minutes during a monthly billing period.
- (3) If the time for achieving peak load is determined by recorded metering, the billing demand is calculated for peak load achieved in the time of application of higher tariff rates.

**Article 23**  
***(Reactive Power)***

- (1) Reactive power shall be determined by metering or temporary metering by means of electric meter for reactive power and is expressed in kvarh.
- (2) Customers shall be calculated and charged excessive take-on of reactive power.
- (3) Excessive take-on of reactive power shall be a positive difference between the measured reactive power and reactive power that corresponds to the power factor  $\cos \varphi = 0,95$  inductivity, i.e., it is the reactive power exceeding 33% of active power which is taken over in the period of implementation of a higher tariff.

**CHAPTER IV ALLOCATION OF REVENUE REQUIREMENT TO TARIFF ELEMENTS**

**Article 24**  
***(Tariff for Electricity Distribution Services)***

- (1) Distribution services shall be calculated in accordance to a tariff for distribution services (distribution network fee).
- (2) Unit prices (tariff rates) are prescribed in the tariff from the previous paragraph for categories of consumption and groups of customers.

**Article 25**  
***(Justified Costs in Determination of Tariffs)***

- (1) The costs for distribution services shall be recognized on the basis of the approved revenue requirement and numbers in the power balance for the distribution network

determined in accordance to the provisions referred to in Chapter II of this Methodology.

- (2) The tariffs for distribution of electricity shall cover the following costs:
  - a) Operation, maintenance and control of distribution network, including the costs of maintaining the connection and metering devices and reading metering devices in accordance to the General Conditions for Delivery and Supply of Electricity and Distribution Grid Code of the Brčko District BiH,
  - b) Development of the distribution network,
  - c) The fee for justified costs for energy losses on the distribution network is approved by the SERC.

**Article 26**  
*(Allocation to Tariff Elements)*

- (1) A part of the revenue requirement is allocated to the tariff elements billing demand and active energy as determined in the Methodology, based on the share of variable and fixed costs in the total costs, analysis of seasonal and daily consumption diagrams and analysis of consumption by categories and groups of users accomplished in the previous period, that is, forecasted for the upcoming period and other objective technical and economic parameters.
- (2) The part of costs allocated to the element billing demand may be allocated to tariff element active energy.
- (3) A part of the revenue requirement is allocated to the tariff element reactive energy on the basis of cost analysis for the use of system for distribution of electricity, increased electricity losses due to capacity flows with capacity factor lower than the prescribed one, costs for additional capacity, structure and value of the distribution system facilities, power balances and other objective and economic parameters.

**Article 27**  
*(Cumulative Principle for Determination of Tariffs)*

The tariff rates for distribution services by voltage levels shall be determined according to a cumulative principle, which means that the tariff for a customer that receives energy at a lower voltage level includes the associated part of distribution costs at higher voltage levels.

**Article 28**  
*(Determination of Average Prices for Tariff Elements)*

- (1) The basis for the determination of relative relationships between tariff rates by voltage levels is the total costs occurred up to the delivery point.
- (2) The costs referred to in the previous paragraph include the distribution costs and losses on the distribution network. Transferred distribution costs that include transmission costs, ISO costs and ancillary services costs shall be recognized, unless the market arrangement for the procurement of electricity specified differently, pursuant to Article 4 of this Methodology.

- (3) The allocated part of the revenue requirement for the voltage level and  $i$  ( $RR_i$ ) is proportional to the relationship of values for distribution capacity at the associated voltage level and the value of total distribution capacities, taking into account the cumulative principle:

$$RR_i = RR_d \times \frac{C_i}{C}$$

Where:

$C_i$  – value of distribution network capacities for voltage level  $i$  (KM),

$C$  – value of total distribution capacities (KM),

$RR_d$  – amount of revenue requirement for the performance of regulated distribution activity, reduced for the value of losses on the distribution network (KM).

- (4) For tariff element billing demand on voltage level  $i$ , the average price is:

$$p_{Pi} = \frac{RR_i}{P_i}$$

where:

$RR_i$  – allocated part of revenue requirement to voltage level  $i$  (KM),

$P_i$  – total annual non-coincident peak load for all customers connected to voltage level  $i$  (kW).

- (5) For the tariff element active energy at voltage level  $i$ , the average price is:

$$p_{Wi} = \frac{RR_{Wi}}{W_i}$$

Where:

$RR_{Wi}$  – value of losses at the distribution network is allocated to voltage level  $i$  (KM),

$W_i$  – total annual consumption of all customers connected to voltage level  $i$  (kWh).

- (6) The value of losses on the distribution network is allocated to the voltage level and proportional to the ratio of losses at the voltage level and total losses:

$$RR_{Wi} = C_L \times \frac{W_{Li}}{W_L}$$

Where:

$C_L$  – value of losses on the distribution network (KM),

$W_{Li}$  – distribution losses at the voltage level  $i$  (kWh),

$W_L$  – total losses on distribution network (kWh).

### **Article 29**

#### ***(Balance of Revenue Requirement and Revenue by Tariff Elements)***

In determination of the average prices for tariff elements on voltage level  $i$  a requirement where the sum of values of all tariff elements is equal to the revenue requirement must be met:

$$RR = \sum_i^n p_{Pi} \times P_i + \sum_i^n p_{Wi} \times W_i$$

Where:

$n$  – number of voltage levels for which the average price of tariff elements is determined.

## **CHAPTER V TRANSITIONAL AND CLOSING PROVISIONS**

### **Article 30**

#### ***(Electricity Supply for Household Customers)***

- (1) The activity of supply to customers, who in accordance to Article 18 of this Methodology belong to the household category, is a regulated activity that in addition to costs based on tariffs for distribution of electricity (distribution network fee), includes procurement costs and supply.
- (2) The costs of electricity procurement represent the total procurement costs for electricity for the needs of household customers ( $p_d$ ) determined in an annual power balance for the distribution network in the Brčko District BiH and they are the sum of costs for electricity generation and costs of wholesale trade.
- (3) In accordance to international accounting standards, the costs of procured electricity include all dependent procurement electricity costs.
- (4) The costs of electricity supply include the costs of a supplier that are related to the processing of the data on metering points and customers, contracts administration, billing, collection and a service center for customers.
- (5) Based on the justifiability of costs referred to in paragraph 1 of this Article, the revenue requirement of the regulated undertaking that performs a public service obligation for supply of household customers in the Brčko District BiH is approved by the SERC.

### **Article 31**

#### ***(Tariff Rates for Electricity Supply of Household Customers)***

- (1) The tariff rates for electricity supply of household customers are determined in the transition period pending full opening of electricity market in Bosnia and Herzegovina not later than 31 December 2014. These rates are determined with a view to facilitate public service of electricity supply for household customers.

- (2) Tariffs for electricity supply of household customers may be determined for each of the following tariff elements:
  - a) Active electricity, expressed in kWh,
  - b) Billing demand, expressed in kW for billing period, and
  - c) Fixed fee by metering point of a customer expressed in KM.
- (3) Household customers may be divided into two groups according to the manner of measuring active energy that is delivered:
  - a) Customers with a single tariff meter, and
  - b) Customers with a two tariff meter.
- (4) The tariffs for electricity supply of household customers may be differentiated according to season by higher (VS) and lower (NS), and according to time of day to higher (VT) and lower (MT).
- (5) Allocation of the revenue requirement for a regulated undertaking to tariff elements and the determination of tariffs for electricity supply of household customers shall be performed in accordance to Article 26 of this Methodology.
- (6) Upon the requirement of a regulated undertaking that performs public service of electricity supply to household customers, tariff rates are approved by the SERC.
- (7) A regulated undertaking may propose to introduce, eliminate or modify any group of customers and duration and mutual relationship between seasonal and daily rates, and final decision will be made by the SERC.

**Article 32**  
***(Regulated Third Party Access)***

A regulated undertaking shall be obligated to provide third party access and distribution service to eligible and ineligible customers and other users of the distribution system under the same conditions and without discrimination.

**Article 33**  
***(Publishing of Tariffs)***

A regulated undertaking shall be obligated to publish tariffs for services of electricity distribution approved by the SERC and make them available to the public.

**Article 34**  
***(Interpretation)***

- (1) The SERC shall provide interpretation of this document.
- (2) If an issue is not covered by this document, the SERC shall decide on the manner of its resolution in each specific case or shall issue separate guidelines for application of individual provisions of this methodology.

**Article 35**  
***(Entry into Force)***

This Methodology shall enter into force on the eighth day after its publication in the “Official Gazette of BiH”, and shall also be published in the official gazette of the Brčko District of BiH.

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26 October 2011

Tuzla

Chairman of the Commission

Nikola Pejić