

**PUBLIC UTILITIES REGULATORY COMMISSION  
(PURC),GHANA**

**ELECTRICITY RATE SETTING GUIDELINES**

***DECEMBER, 1999***

## 1. INTRODUCTION

These guidelines, issued by the Public Utilities Regulatory Commission (PURC) in pursuance of the PURC Act, 1997, Act 538 (sections 3a and 16) shall apply to electricity rate-setting in Ghana.

## 2. BACKGROUND

The Public Utilities Regulatory Commission (PURC) was established under the PURC Act, 1997, Act 538 to, among other functions, provide guidelines on rates chargeable for provision of utility services (Reference Section 3 (a) of the Act 538).

### 2.1 Rate-Setting Provisions of PURC Act 538

Sections 16(3 a-d), 17, and 20 of the Act 538 also requires the Public Utilities Regulatory Commission, in preparing the guidelines, to take into account the following:

- (i) consumer interest
- (ii) investor interest
- (iii) assuring reasonable cost of production of the service
- (iv) assurance of the financial viability of the public utility
- (v) economic development of the country
- (vi) best use of natural resources
- (vii) uniformity of prices throughout the country
- (viii) competition among utility companies

To satisfy the above requirements, the following considerations would be taken into account:

- (i) fair apportionment of total cost of supply to various classes of consumers and provision of a certain minimum level of service (lifeline supply) at an “affordable” price to residential customers who may not be able to pay the full cost;
- (ii) appropriate Rate of Return on investments to satisfy the interests of investors in the National Interconnected System;
- (iii) setting of Bulk Supply Tariff (BST) to ensure that distribution utilities procure, at least cost from wholesale power suppliers, electricity for distribution and retail to regulated customers;
- (iv) setting of Transmission Service Charge to ensure economically efficient, reliable and secure operation of the Transmission System by the Electricity Transmission Utility;
- (v) setting of Distribution Service Charge to ensure economically efficient, reliable and secure operation of the Distribution System by distribution utilities;
- (vi) provision of adequate revenue to ensure financial viability of the power utilities;
- (vii) allowance for “Special Rates” for priority consumers whose activities may enhance economic development;

- (viii) allowance for a tariff structure which incorporates uniform rates for all customers within particular category of consumers regardless of geographic location.

## **2.2 Contents of Guidelines**

The succeeding four sections are:

Section Three: contains definitions of key terms used in these guidelines.

Section four: provides the key elements of electricity rate making methodology. It contains the general guiding principles used as the basis for rate-setting.

Section five: contains the structure of end-user tariff.

Section Six: outlines the Rate-setting process adopted by the Commission.

### 3 DEFINITIONS

- 3.1 Bulk Generation Charge (BGC):** are charges paid to the distribution utilities to cover the costs of procuring electricity from wholesale power suppliers and from the Spot Market, exclusive of the costs for associated transmission services, as developed in Section 4.1 of the Guidelines.
- 3.2 Bulk Supply Point (BSP):** high voltage electrical sub-stations in the National Interconnection System that are used by wholesale power suppliers for electricity injections into and/or extraction from the transmission system.
- 3.3 Bulk Supply Tariff (BST):** Is the price of the electricity at the Bulk Supply Point. It shall recover the capacity and energy charges of generation and transmission service charges, as developed in Section 4.3 of the Guidelines.
- 3.4 Distribution Service Charge (DSC):** are charges paid to the distribution utilities to cover their costs of providing services to regulated customers. The DSC is established based on the Distribution Added Value (DAV) computed for distribution utilities, as developed in Section 4.3 of the Guidelines.
- 3.5 Distribution System:** the distribution network in a designated area or zone, consisting of low to medium voltage electrical circuits, sub-stations, transformers and auxiliary facilities that link the Bulk Supply Points to meters on the premises of regulated customers, through which the distribution utilities distribute and retail electricity.
- 3.6 Distribution Utility:** power utilities (licensed to operate under Section 26 of Act 541) whose activities involve primarily the daily operation and maintenance of the distribution system and the provision of other ancillary services required to retail electricity to regulated consumers.
- 3.7 Economically Adapted System:** is an interconnected electrical system in which there is equilibrium between the supply and demand of energy, resulting in the reliable, safe and cost-effective operation and maintenance of electricity supply services to all customers.
- 3.8 Electricity Transmission Utility (ETU):** the power utility (licensed under Section 24 of Act 541 to be the sole operator of the transmission system) that provides transmission services without discrimination to wholesale power suppliers in the National Interconnected System.
- 3.9. Embedded Generation Facility:** A power generation facility that is electrically connected (at low to medium voltage) directly to a sub-station within a particular distribution system. Provided the total output of such generation facility can be distributed and retailed locally by the distribution utility without any requirement for the use of the high voltage transmission system of the NIS.
- 3.10 Generation:** The process of producing electrical power (kilowatts or kW) and energy (kilowatt hours or kWh) through conversion of other primary forms of energy.
- 3.11 Non-Residential Customers:** are regulated customers who use electricity for commercial and non-domestic activities, maintain a consumption level equal to or less than 100 kilovolt Ampere at a service voltage of 415 Volts and/or 240 Volts.

- 3.12 National Interconnected System (NIS):** the system consisting of high voltage electrical circuits, sub-stations and generation facilities within the geographical boundary of Ghana as defined pursuant to Section 23 of Act 541. The NIS is operated exclusively by the Electricity Transmission Utility.
- 3.13 Non-Served Energy Cost:** The cost of non-served energy shall be equal to the Spot Market price of electricity.
- 3.14 Power Sale and Purchase Contracts:** bilateral contracts established between distribution utilities and wholesale power suppliers for the purchase of electrical power and energy.
- 3.15 Replacement Value of Fixed Assets:** Represents the estimated cost of replacing the works and physical assets used to provide the services of similar quality and reliability as achieved with the existing technology at current prices. Costs are estimated taking into account (a) the financial expenses incurred during construction, assuming an interest rate which shall not exceed the Discount Rate established by the PURC, (b) expenses and compensations for the establishment of rights of way, and other relevant expenses.
- 3.16 Residential Customers:** are customers who use electricity for non-commercial uses, maintain a consumption level equal to or less than 100 kilovolt Ampere at a nominal service voltage of 415 Volts for 3 phase and/or 240 Volts for single phase.
- 3.17 SLT-LV Customers:** are consumers who are either supplied at a voltage level of 415 Volts and have maximum demand above 100 kilo Volt Ampere or are supplied at 415 Volts but have consumption less than 100 kilo Volt Ampere.
- 3.18 SLT-MV Customers:** are consumers who are supplied at a voltage level exceeding 415 Volts but less than 11 kilo Volts and have maximum demand above 100 kilo Volts Ampere.
- 3.19 SLT-HV Customers:** are consumers who are supplied at a voltage level of 33 kilo Volts and have maximum demand of equal to or above 100 kilo Volt Ampere.
- 3.20 Spot Market:** power supply transactions to settle: (i) the differences between the contractual obligations of wholesale power suppliers to distribution utilities and/or other customers and the hour-by-hour amounts of power and energy produced on the basis of economic merit order dispatch of generation facilities in the National Interconnected System, and (ii) the differences between the hour by hour and contractual consumption of distributors and/or other customers.
- 3.21 Thermal Complementation:** electricity supplied into the National Interconnected System from thermal power generation sources to complement available supply from the Akosombo and Kpong hydroelectric power plants.
- 3.22 Transmission System:** Transmission system is defined as those high voltage circuits that transfer (transmit) electrical power and energy from the generating stations through a network of lines, switching stations, and sub-stations for delivery to bulk supply points for delivery to distribution utilities and/or bulk customers.
- 3.23 Transmission Service Charge (TSC):** are charges paid to the Electricity Transmission Utility for the provision of transmission services without discrimination of wholesale power suppliers in the NIS, as developed in Section 4.2 of the Guidelines.

- 3.24 Transmission Ancillary Services:** are services carried out by the transmission system operator to support the transmission of energy from sources to loads while maintaining reliable operation of the transmission system, in accordance with established guidelines. These services include regulation and frequency response, operating reserves (spinning and supplemental reserves), reactive power, black starts etc.
- 3.25 Volta River Authority (VRA):** The statutory wholesale power supplier for electricity that is produced from the Akosombo and Kpong hydroelectric power plants.
- 3.26 Wholesale Power Suppliers:** power utilities (licensed to operate under Section 25 of Act 541) whose principal activities involve the operation and maintenance of power generation facilities in the National Interconnected System and the supply of electrical power and energy under contract with distribution utilities and/or bulk customers.
- 3.27 Wholesale Power Supply Market:** all power supply transactions to meet the total demand for electricity in the NIS which involve the procurement of electricity by distribution utilities and/or bulk customers from wholesale power suppliers and/or directly from the Spot Market.

## 4.0 ELECTRICITY PRICING GUIDELINES

In line with the PURC Act 538, the PURC shall regulate the charges which distribution utilities pass on to their customers to recover the cost of procuring electrical power (capacity) and associated energy from wholesale power suppliers.

The PURC shall also regulate the charges through which distribution utilities pass on to regulated customers the costs of services rendered for electricity distribution and retail sales.<sup>1</sup>

To that end, the PURC shall regulate the following:

- a) Electrical power (capacity) and energy sold by distribution utilities to regulated customers i.e. Bulk Generation Charge.
- b) Charges payable for transmission services i.e. Transmission Service Charge
- c) Charges payable for distribution services i.e. Distribution Service Charge
- d) Sales to users of electricity i.e. End-User Tariffs

### 4.1 WHOLESALE MARKET TRANSACTIONS

In line with Regulations under Act 541, the Electricity Transmission Utility, in its capacity as the Market Administrator and System Operator (MA&SO) coordinates the hour-to-hour supply of electricity in the National Interconnected System (NIS) and dispatch all generation facilities on the basis of economic merit order. Distribution utilities procure electricity from wholesale power suppliers at Bulk Supply Points (BSP) on the NIS for distribution and retail to regulated customers<sup>2</sup> within the distribution system.

Distribution utilities shall procure all their power requirements under contracts from the Wholesale Market on the basis of the following arrangements:

1. Power Sale and Purchase Contract with the Volta River Authority (VRA) for the procurement of firm capacity and associated energy to be supplied from the hydroelectric power generation facilities located at Akosombo and Kpong.
2. Power Sale and Purchase Contracts with other wholesale power suppliers for the supply of firm capacity and associated energy to be supplied from other power generation plants that are part of the National Interconnected System.

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<sup>1</sup> These Guidelines do not cover the regulation of services provided by wholesale power suppliers to other customers who are directly connected to the Bulk Supply Points.

<sup>2</sup> Regulated customers, as currently defined by the Energy Commission, are those customers whose annual consumption is less than 50GWh.

3. In the event that a wholesale supplier is unable to meet his contractual obligation with a distribution utility, the deficit/difference shall be procured from the Spot Market. In effect purchases of capacity and energy from the Spot Market is created by transactions between wholesale power suppliers to settle the difference between the actual hour-to-hour demand for capacity and energy in the NIS and the demand covered by Power Sale and Purchase Contracts.

#### 4.1.1 Purchase Price of Electricity from Wholesale Power Suppliers

Pricing of electricity from Wholesale Power Suppliers shall take into account the following periods in the evolution of the on-going reform in the power sector:

- Transition period
- Post transition period

#### 4.1.2 Transition Period

The transition period refers to the period from 2000 up to 2002. The following pricing methodology shall apply during the transition period:

1. The PURC shall approve annually the purchase price(s) for the supply by VRA of firm capacity and associated energy from the hydroelectric facilities at Akosombo and Kpong. To that end, the PURC shall take into account VRA's annual financial rate of return requirements for, and also the operation and maintenance costs of those hydroelectric facilities.
2. Prior to concluding any Power Sale and Purchase Contracts with other wholesale power suppliers, distribution utilities shall secure PURC approval for the methodology to be applied to set specific charges to recover the costs of the firm capacity and associated energy to be purchased.

The capacity charge shall be set at a level to cover the investment annuity and fixed operating and maintenance costs of developing a PURC designated peaking plant in the NIS.

The energy charges shall be equal to the levelised value of the expected Short-Run Marginal Cost (SRMC) of supplying the energy required to meet the projected load in the NIS. The basis for establishing the levelised energy charge shall be a one-year forward simulation of economic merit order dispatch of all generating facilities in the NIS.<sup>3</sup> The results achieved from the one-year forward simulation shall be reviewed in June and December of each year to take into account any changes in electricity supply, demand projections and fuel costs that are made at the beginning of the year.

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<sup>3</sup> In addition to existing generation facilities, the projected energy supply from imports and/or new generation facilities to be commissioned before the year 2002 shall be included in the forward simulation, in line with the Government's Transitional Plan for Wholesale Supply.



### 4.1.3 Post-Transition Period

The following arrangements shall apply after the transition period.

In order to meet increase in demand for firm capacity and associated energy by their customers, distribution utilities shall apply a PURC endorsed competitive bidding process to establish long-term Power Sale and Purchase Contracts with prospective wholesale power suppliers.

The PURC approved capacity charge for the Spot Market shall apply uniformly for all contracts, and the applicable energy charge shall be set equal to the purchase price for energy that is realized from the most competitive bids submitted to distribution utilities.

### 4.1.4 Purchase Price of Electricity from the Spot Market

Distribution utilities shall meet all the requirements of their customers through Power Purchase and Supply Contracts. In the event that they are unable to be supplied all their contract requirements by any wholesale supplier the difference/deficit shall be supplied from the Spot Market. In such events, the distribution utility is allowed to pass on to its customers the price approved by the PURC. The distribution utility, on the other hand, shall pay prices prevailing on the Spot Market.

In accordance with regulations for the Wholesale Power Supply Market, the MA&SO shall determine the hour-by- hour costs of supplying capacity and energy from the Spot Market.

For the purpose of computing the BGC, a two-component tariff shall represent the price of capacity and energy that distribution utilities purchase from the Spot Market, as follows:

1. a capacity charge that shall be set at a value equal to the investment annuity based on PURC approved discount rate plus the fixed operating and maintenance costs of developing a Single Cycle Gas Turbine for peaking capacity required in the NIS plus transmission toll.
2. an energy charge derived from the expected short-run marginal costs of supplying energy in the NIS, based on a 12-month forward simulation of economic merit order dispatch of all generation facilities in the NIS. Each year, the MA&SO shall compute for the PURC a levelised energy charge that shall apply for electricity purchases from the Spot Market. The levelised energy charge shall be adjusted in June and December each year, taking into account annual hydrology of the reservoir for VRA's hydroelectricity facility at Akosombo.

### 4.1.5 Purchase price for Electricity supply from Embedded Power Generation Facilities

Distribution utilities shall enter into long-term Power Sale and Purchase Contracts with wholesale power suppliers for the supply from Embedded Power Generation Facilities of electrical power and energy for local distribution and retail within a particular distribution system.

The PURC shall approve a specific BST for electricity supply from such Embedded Power Generation Facilities. The PURC shall require that the level of such specific BST shall not exceed the avoided costs of procuring electricity directly from the Spot Market.

## 4.2 BULK SUPPLY TARIFF

The Bulk Supply Tariff (BST) represents a PURC approved maximum charge for the procurement of capacity and energy at each BSP that distribution utilities shall be allowed to recover from customers through End-User Tariffs.

The PURC shall derive the Bulk Supply Tariff (BST) as the weighted-average of the purchase prices of capacity and energy that is procured by distribution utilities at the Bulk Supply Points. The Bulk Supply Tariff shall be derived as the sum of the capacity and energy purchases from the wholesale market plus transmission charges as set out in Section 3.1 of the Guidelines.

## 5.0 TRANSMISSION SERVICE CHARGE

5.1 The Electricity Transmission Utility (ETU) shall provide transmission services without discrimination to all Wholesale Power Suppliers. A Transmission Service Charge (TSC) shall be paid to the Transmission Utility Company to cover the Total Transmission Cost (TTC). Total Transmission Cost shall be determined based on the annuity of investment and standard costs of operating and maintaining transmission system.

The Transmission Service Charge shall have two-component tariff structure:

1. The Transmission Toll, which shall be computed to recover the difference between the TTC and the Spot Market Income. The Transmission Toll shall be a charge per kW of peak demand in the NIS.
2. The Spot Market Income shall correspond to the sum of payments received by the ETU from all participants in the wholesale power suppliers based on Spot Market transactions involving the hour-by-hour transfer of energy and capacity between Bulk Supply Points.

### 5.1.1 Standard Capital Costs

Capital cost of transmission shall be calculated as the annuity of Replacement Value of Fixed Assets in service. The capital recovery factor used in the calculation of the annuity shall be based on useful life of 30 years and a discount rate determined by the PURC in consultation with the Transmission Utility.

The Replacement Value shall be based on the actual market prices prevailing at the tariff review period.

### 5.1.2 Standard O & M Costs

Operation and Maintenance costs shall include the following:

- Annuity of the administrative installations
- Working Capital costs
- Administrative personnel costs
- Direct maintenance costs

- Maintenance personnel costs

### 5.1.3 Standard Ancillary services costs

Ancillary services costs include costs associated with frequency response, reserves, reactive power and black starts. The level of these costs will be determined by the PURC in consultation with the transmission utility company.

### 5.1.4 TSC Annual Adjustment

During the Tariff Review Period (see section 4.7), the Base TSC as determined above shall be adjusted annually taking into account the following factors:

1. Average inflation (CPI)
2. Productivity Factor (G) set by PURC
3. Cost of Capital Adjustment Factor (CCAF) set by the PURC.

$$TSC = \frac{\text{Annuity} \times (1 + CCAF) + O\&M \times (1 + CPI - G)}{\text{Transmission system Coincident Peak Demand}}$$

Productivity Factor (G) shall take into account cost containment requirements in factors used directly in operations (e.g. labour, materials, transport etc).

## 5.2 DISTRIBUTION SERVICE CHARGE

Distribution utilities shall serve distribution zones which shall have a two tier structure as follows:

1. Commercialised Electrification Areas (High/Medium Density Areas) which shall comprise all urban centers and areas covered under the District Capital Electrification Projects component of the Governments National Electrification Scheme (NES).
2. Self Help Electrification Areas (Low Density Areas) which distribution utilities shall provide services under “operation and maintenance” contract with the Government of Ghana.

In addition to the Bulk Supply Tariff, the distribution utility shall charge a Distribution Service Charge for its services. The DSC shall be applicable to all customers of the distribution utility.

The Distribution Service Charge (DSC) shall recover all expenses of the distribution utility in the commercial electrification areas and the operation and maintenance costs in the Self Help Electrification Areas. It shall be recovered as an energy-related charge for residential and non-residential customers and both capacity and energy charges from industrial customers.

The DSC shall consist of the following major components: (i) standard distribution losses of power and energy (expansion factors) (ii) standard investment, maintenance and operation costs (DAV) and (iii) costs associated with the user (Monthly Fixed Charge), independent from his demand for power and energy.

### **5.2.1 Standard Losses (Expansion Factors)**

The losses shall be regulated to reflect agreed performance benchmarks. Allowed losses for the distribution utilities shall include technical losses and non-technical losses. The value of these losses shall be determined by the PURC after consultation with the distribution utility companies from time to time.

### **5.2.2 Standard Capital cost**

The standard capital cost of distribution shall be calculated as the annuity of the Replacement Value of Fixed Assets of the distribution companies. The annuity shall be calculated using a capital recovery factor based on a useful life (35 years) and discount rate determined by the PURC in consultation with the utility companies.

The Replacement Value of Fixed Assets shall be based on the actual market prices prevailing at the time of tariff review.

### **5.2.3 Standard O&M Costs**

The major components of the O&M costs are related to labour costs, transport costs, material costs and administrative costs.

Operation and Maintenance costs shall include the following:

- Annuity of the administrative installations
- Working Capital costs
- Administrative personnel costs
- Direct maintenance costs
- Maintenance personnel costs

These cost elements shall be determined on the basis of key performance-related benchmarks in order to enhance efficiency in the provision of distribution services. The level of these performance benchmarks shall be determined by the PURC after consultation with the distribution utility companies.

### **5.2.4 Fixed User Service Cost**

The fixed user service cost represents the cost of billing, processing, etc and shall be recovered from monthly service charges imposed on all consumers who are not on pre-paid metering.

The level of the user cost shall be based on a benchmark that shall be related to the number of customers to be served by the utility among others. The level of the standard user cost benchmark shall be determined by the PURC after consultation with the distribution utility companies.

### 5.2.5 DSC Annual Adjustments

During the Tariff Review Period (see section 5.6), the Base DSC as determined above shall be adjusted annually taking into account the following factors:

- Average inflation (CPI)
- Productivity Factor (G) set by PURC
- Quality of Service Penalty/Reward (QSP) set by the PURC
- Cost of Capital Adjustment Factor (CCAF) set by the PURC.

$$DSC = \frac{\text{Annuity} \times (1 + CCAF) + O\&M \times (1 + CPI - G) \pm QSP}{\text{Distribution system Max Demand}}$$

Productivity Factor (G) shall take into account cost containment requirements in factors used directly in operations (e.g. labour, materials, transport etc).

Quality of Service Performance Indicators shall include factors such as Consumer Satisfaction, reliability of supply etc.

### 5.3 ALLOCATION OF COSTS TO END-USERS

The End-Users serviced by distribution utilities are classified as (i) Residential, (ii) Non-Residential, (iii) SLT- LV, (iv) SLT-MV and (v) SLT-HV. The residential, non-residential and SLT LV customers are supplied electricity at nominal voltage levels of 415/230 V and shall be classified as Low Voltage (LV) customers for the purposes of cost allocation. SLT-MV and SLT-HV customers shall be classified as Medium Voltage (MV) customers.

The total expenses of a distribution utility company (Distribution Added Value) shall be allocated to the classes of customers (LT and MT) on the basis of the actual costs incurred by the distribution companies in providing the services. The PURC shall determine the appropriate distribution cost allocation factors in respect of LV and MV customers in the calculation of the Distribution Service Charge for various end-use customers.

### 5.4 ESTABLISHMENT OF VALUE OF FIXED ASSETS

In order to establish the Value of Fixed Assets, the utility company shall submit supporting data which will be subjected to a full audit. The PURC may reject the inclusion of unnecessary assets, with reason

Every five years, the PURC shall update the new value of Fixed Assets of the transmission and distribution facilities on information submitted by the utility companies. In case of new works or withdrawals, the PURC shall increase or reduce the corresponding Value of Fixed Assets.

### 5.5 ESTABLISHMENT OF DISCOUNT RATE FOR CAPITAL RECOVERY

The Discount Rate to be used for setting tariffs shall be determined by the PURC at least once in every two years, in real terms, for tariff review purposes.

The Discount Rate can only be revised when the factors that influence its determination have suffered significant alterations that would justify its modification. The PURC at its own initiative or at the request of the utility company can commission the execution of studies for the revision of the rate.

## **5.6 ESTABLISHMENT OF PERFORMANCE BENCHMARKS**

The PURC shall review performance benchmarks and other weighting factors relevant for rate setting at least once in every four years.

## **5.8 PREPARATION OF INFORMATION REPORTS ON RATE CALCULATION**

The PURC will periodically prepare information on the procedures used to establish rates, and historical and expected values. The reports shall be made available to the public

## **6 END-USER TARIFF STRUCTURE**

### **6.1 Residential Customers**

Residential customers shall pay electricity tariff on the basis of energy (kWh) and shall be grouped into three classes on the basis of the level of consumption determined by the PURC in consultation with the Distribution Utility from time to time.

#### **6.1.1 Lifeline Supply**

The “lifeline” philosophy contends that electricity is an essential service rather than a luxury and people of low income should not be deprived of it because they cannot afford to pay the full cost of supply.

The affordability concern shall be addressed through the institution of a lifeline supply level and tariff that shall ensure that a certain quantity of electricity is provided at a low rate, such that low-income customers can afford to meet basic needs.

The lifeline supply shall be instituted as follows:

- The lifeline consumption level shall be set by the PURC from time to time.
- The rate for the lifeline consumption shall be related to the following factors as appropriate:
  - (i) National Monthly Minimum Wage;
  - (ii) Ability to pay of Rural Consumers;
  - (iii) The price of a gallon of kerosene;
  - (iv) Average cost of hydro;
- Beneficiaries of the lifeline shall be determined by the PURC.
- The lifeline supply shall be incorporated into the rate structure as to be determined by the PURC.

### **6.2 Non-Residential Customers**

Non-Residential customers shall pay electricity tariff on the basis of energy (kWh) and shall be grouped into two classes on the basis of the level of consumption to be determined by the PURC in consultation with the Distribution Utility from time to time.

### **6.3 SLT-LV Customers**

End-user tariff for customers in this category will incorporate (i) Monthly Demand Charge denominated in Cedis/kVA/month, (ii) an energy charge denominated in Cedis/kWh and (iii) fixed

Monthly Service Charge denominated in Cedis/Month.

#### **6.4 SLT-MV Customers**

End-user tariff for customers in this category will incorporate (i) Monthly Demand Charge denominated in Cedis/kVA/month (ii) and energy charge denominated in Cedis/kWh and (iii) fixed Monthly Service Charge denominated in Cedis/Month.

#### **6.5 SLT-HV Customers**

End-user tariff for customers in this category will incorporate (i) Monthly Demand Charge denominated in Cedis/kVA/month, (ii) energy charge denominated in Cedis/kWh and (iii) fixed Monthly Service Charge denominated in Cedis/Month.

#### **6.6 Revision of Tariff structure**

The PURC shall revise the tariff structure when necessary, after consultations with the utility companies. In line with sub-section 18(3) of the PURC Act 538, distribution utilities may with the written permission of the PURC demand and receive from any customer "Special Rates" agreed to by the utility and the customer.



**END-USER TARIFF STRUCTURE FOR CUSTOMER CATEGORIES**

Interim structure for end-user tariffs for customer categories shall be as follows:

**I. CATEGORY ONE: RESIDENTIAL**

Service Voltage 415 V  
Maximum Demand < 100 kVA

- a. Service Charge (Cedis/month)
- b. Energy Charge (Cedis/kWh)

**II. CATEGORY TWO: NON-RESIDENTIAL**

Service Voltage 415 V  
Maximum Demand < 100 kVA

- a. Service Charge (Cedis/month)
- b. Energy Charge (Cedis/kWh)

**III. CATEGORY THREE: SLT-LV**

Service Voltage 415 V  
Maximum Demand > 100 kVA

- a. Service Charge (Cedis/month)
- b. Demand Charge (Cedis/kVA/month)
- c. Energy Charge (Cedis/kWh)

**IV. CATEGORY FOUR: SLT-MV**

Service Voltage 11kV  
Maximum Demand > 100kVA

- a. Service Charge (Cedis/month)
- b. Demand Charge (Cedis/kVA/month)
- c. Energy Charge (Cedis/kWh)

**V. CATEGORY FOUR: SLT-HV**

Service Voltage >11kV  
Maximum Demand > 100kVA

- a. Service Charge (Cedis/month)
- b. Demand Charge (Cedis/kVA/month)
- c. Energy Charge (Cedis/kWh)

## **7.0 RATE-SETTING PROCESS**

The PURC shall adopt the following process in rate-setting.

### **7.1 Pre-filing Notification**

Electricity rates shall be set at least once in every four years to be effective from the month of January billing cycle. Electric utilities shall file tariff notification by September 30 for tariffs to be effective from the month of January billing cycle of every year. In general, all tariff notifications to the PURC shall be filed at least 60 days from its effective date.

### **7.2 Preliminary Review**

The PURC upon receipt of the necessary documentation shall review it and notify the utility company of its comments, if any. The utility company after receiving the comments shall respond to them within a maximum period of fourteen (14) calendar days.

The PURC shall accept or reject the filing.

### **7.3 Rejection and Re-filing**

If the filing of the utility is rejected, it shall re-file within a maximum period of fourteen (14) calendar days for consideration by the PURC

### **7.4 Public Hearing**

When the PURC accepts the filing of the utility company, it shall organise “public hearings” to give the opportunity to other stakeholders to comment on the proposals. Prior to the public hearing, the utility company shall publish its tariff proposal in the print media. The publication of the proposed rates should be done at least 14 days before the “public hearings”.

### **7.5 Formal Hearing**

Following the public hearings, the PURC shall investigate the rate proposals submitted by the Utilities. The investigations shall be conducted by staff of the PURC and other experts or representatives of stakeholders.

### **7.6 PURC decision and Publication of Rates**

The PURC shall cause its decision to be published in the gazette and the print media.

### **7.7 Petitions**

Interested parties may file petitions requesting reconsideration of the resolutions of the PURC within ten calendar days following their date of publication.

The petition shall be resolved within ten calendar days from its filing, after which all administrative remedies are exhausted.

**PURC RATE-SETTING PROCESS**

