

STATUTORY INSTRUMENT

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THE SIERRA LEONE ELECTRICITY AND WATER REGULATORY COMMISSION (TARIFF) RULES, 2019

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**SIERRA LEONE ELECTRICITY AND WATER
REGULATORY COMMISSION ACT, 2011
(ACT NO. 13 OF 2011)**

THE SIERRA LEONE ELECTRICITY AND WATER REGULATORY COMMISSION (TARIFF) RULES, 2019 **Short title**

In exercise of the powers conferred upon it by section 66 of the Sierra Leone Electricity and Water Regulatory Commission Act, 2011 the Commission makes the following rules –

PART I – PRELIMINARY

1. In these rules, unless the context otherwise requires – **Interpretation**

“Act” means the Sierra Leone Electricity and Water Regulatory Commission Act, 2011;

“debt service obligations” include the cost of principal and interest payments required on all outstanding debt of the utility during the historical test year;

“cash paid or pay as you go capital improvements” mean capital projects that are paid for out of current year tariff revenues or out of a reserve fund;

“Electricity Distribution and Supply Authority (EDSA)” mean Electricity Distribution and Supply Authority established under section 25 of the National Electricity Act 2011;

“Electricity Generation and Transmission Company (EGTC) mean Electricity Generation and Transmission Company established under section 2 of the National Electricity Act 2011”

“hybrid approach” means the rate of return

approach or cash needs approach including the inclusion of depreciation, a non-cash expense on cash paid capital improvements and where required a return on equity for any investments financed with equity;

“operating reserve fund” means a fund used in the cash-needs approach as an alternative to the inclusion of working capital in the regulatory asset base including the rate of return approach to estimating the revenue requirement;

2. (1) These rules shall apply to Electricity Generating and Transmission Company (EGTC) and Electricity Distribution and Supply Authority (EDSA). **Application**

(2) These rules shall not apply to mini-grids.

PART II – TARIFF FORMATION

3. (1) The level of rates prepared by the Commission that may be charged by the public utilities for services rendered, shall be in accordance with sections 11 and 43 of the Act. **Fixing rates**

4. (1) The Commission shall consider proposals for new or revised rates if the public utility can demonstrate that without revision of the rates it would experience financial hardship. **Financial hardship**

(2) A public utility shall be considered to be experiencing financial hardship if revenues are insufficient to cover cash flow needs such as –

(a) unexpected repair and maintenance expenses, as may result from a natural disaster;

(b) revenues to finance existing debt service requirements;

(c) unexpectedly high costs associated with expense items beyond the managerial control of the utility, such as energy costs, inflation, or purchased water costs; and

(d) other unexpected and unusual costs the utility may incur, subject to the Commission’s approval.

5. (1) In accordance with subsection (4) of section 49 of the Act within 30 days of receipt of a public utility's notification of its intention to set new or revised rate, the Commission shall either –

Notification of new or revised rates

- (a) accept the public utility's calculation; or
- (b) not accept the public utility's calculation and shall –
 - (i) state the reasons or considerations for rejecting the calculation; and
 - (ii) propose a modification or an alternative calculation of the expected revenue from charges.

(2) In accordance with subsection (3) of section 45 of the Act, before approving any rate, the Commission shall provide as far as practicable for the public utility and consumer affected by the rate a reasonable opportunity to be heard and shall take into account any representation made.

6. In accordance with –

Public notification

- (a) paragraph (b) of section 17 of the Act, the Commission shall publish in the Gazette a summary of any decision it makes in the setting of rates or charges for regulated goods or services;
- (b) section 46 of the Act, the Commission shall publish in the Gazette and the mass media any rate that it approves;
- (c) subsection (2) of section 48 of the Act, the Commission shall publish the rate public utilities charge for their services.

7. In developing tariffs, the Commission shall –

Tariff methodology

- (a) aggregate cost into a total;
- (b) divide portions of the total referred to in paragraph (a) and assigned them to a customer class each;

(c) design tariffs to recover the portion of costs assigned to each customer class.

8. (1) A public utility's revenue requirement shall be the total amount of revenue required to recover its costs, including prudent operating and maintenance costs, capital expenditure costs and reasonable rates of returns on debt and equity required to finance the capital expenditure costs.

**Determination
of revenue
requirement**

(2) The revenue referred to under sub-rule (1) shall be determined by comparing the revenues of the utility to its operating and capital costs including the adequacy of existing tariffs to recover costs.

(3). A utility's revenue requirement shall be based on its cost of providing service to the public during an historical test year with the most recent year for which accounting information is available or adjusted, necessary for –

(a) the effects of unusual circumstances on utilities costs;

(b) anticipating the evolution of the business from the past to the future;

(c) reconciling for previous differences between actual and target revenues.

9. (1) In considering estimates the Commission shall use an approach known as "hybrid" in which actual debt service costs are used for any assets financed with debts but depreciation are used for assets funded with a utility's own funds.

**Considering
estimates**

(2) Under the hybrid approach, the revenue requirement shall be defined by the equation set out in Schedule 1 A.

10. (1) The debt service obligation shall include the cost of principal and interest payments required on all outstanding debt of the utility during the historical last year.

**Debt service
obligation**

(2) The Commission may disallow all or a portion of debt service requirements that it determines to have been imprudently incurred, or to finance activities other than those that benefit customers of the utility.

11. (1) Cash paid capital improvement shall be depreciated in

Cash paid

order for public utilities to recover the cost of their investment.

**capital
improvements**

(2) An allowance for a return on cash-paid capital improvements shall be justified if the asset owner expects to be paid dividends.

(3) Cash-paid capital improvements, shall undergo a prudence review by the Commission.

(4) The Commission shall assess the reasonableness of the

–

(a) necessity of the capital expenditure items proposed by the utilities;

(b) cost of the items proposed;

(c) proposed cost of debt for financing those capital expenditures.

12. (1) Major categories of operating and maintenance cost includes the following –

**Operating and
Maintenance
expenses**

(a) operations and maintenance expense incurred in furnishing normal public utility service and in maintaining utility plant used by and useful to the public utility providing the service including the cost of labour and materials used and a reasonable provision of losses;

(b) assessments and taxes other than income taxes and corporate taxes;

(c) fees and levies paid to the Commission;

(d) fees paid in relation to the Collection Account;

(e) reasonable expenditure for ordinary advertising contributions and donations;

(f) funds expended in support of membership in professional or trade associations provided;

(g) amounts required to reconcile the difference between previous revenue requirements and actual amounts collected.

(2) Only expenditures that are reasonable and necessary to

provide service to customers during the tariff year shall be allowed as part of the revenue requirement.

(3) The Commission shall retain authority for determining the extent to which expenses are reasonable and necessary.

(4) In deciding the extent to which expenses are reasonable and necessary, the Commission shall consider –

- (a) the expenditure as compared to similar expenditures of other utilities in the sector;
- (b) the expenditure as compared to past expenditures by the same utility;
- (c) any additional documentation and explanation furnished by the utility; and
- (d) publicly available international and regional benchmarks for good practice.

(5) The following expenses shall generally not be allowed as a component of the revenue requirement –

- (a) funds expended in support of political candidates;
- (b) funds expended in support of any political movement;
- (c) funds expended in support of or membership in social, recreational, fraternal or religious clubs or organisations;
- (d) funds expended in promotion of political or religious causes;
- (e) cost of processing a refund or credit of sums collected in excess of a rate finally ordered by the Commission;
- (f) any other expenditure found by the Commission to be unreasonable or not in the public interest including but not limited to penalties and interest on overdue taxes, criminal penalties or fines and civil penalties or fines.

13. The Commission shall consider allowing the following types of reserves funds in the revenue requirement – **Contribution to a reserve account**

(a) capital reserve fund which is used by utilities to fund larger capital projects; and

(b) operating reserve fund which is established to correct the imbalance where a revenue a utility receives does not match the time when expenses are incurred.

14. (1) The Commission may disallow the pass-through of some level account for excess losses to customers. **Adjustment to excess losses**

(2) The adjustment for excess losses under sub-rule (1) shall be equal to the units of lost electricity or water above the set threshold times the average cost of producing and transmitting the electricity or water to the local network.

15. (1) For the purposes of these rules other revenues shall include – **Other revenues**

(a) revenue derived from sources other than tariffs;

(b) services allowed under the license or licenses;

(c) items such as equipment rentals, and interest earned on investments; and

(d) grant-funded assets.

PART III – ALLOCATION OF REVENUE REQUIREMENT

16. (1) The steps required to allocate the revenue requirement shall be as set out in Schedule 1B. **Allocation of revenue requirement**

(2) In accordance with subsection (1) of section 49 of the Act the Commission shall require that each utility submit, as part of its proposed new tariff or revision of tariffs the following information –

(a) a study of its costs for the historical test year, free of cross subsidies and external subsidies;

(b) relevant details and methods used in determination of tariffs for each consumer class; and

(c) an allocation of the revenue requirement to functional cost components.

17. The functionalisation of the public utility's revenue requirement shall be as follows –

Functionalisation

(a) direct assignment of revenue requirement which involves assignment of all direct costs that are related to a specific function including costs related to generation of electricity assigned to the generation function;

(b) the cost for any project planned to be financed as cash- paid capital is directly assigned to the relevant business segment;

(c) apportion shared operating expenses wherein some administrative department serve all utility functions and the expenses incurred to operate such department needs to be functionalised across all business segments.

18. (1) In order to allocate the functionalized costs into groups according to how they are incurred or caused the Commission shall classify costs in the following ways –

Classification

(a) energy costs, which vary with the volume of electricity produced and these costs include fuel and some plant maintenance and operating costs.

(b) demand costs, which vary with the rate of customer demand for electricity, such as fixed generation and distribution costs.

(c) customer costs, which are costs associated with serving customers, regardless of their volume or rate of use including metering, billing and other administrative functions.

(2) The classification under sub-rule (1) of similar cost components shall be different for each business segment in

the electricity and water sectors.

(3) Where the Commission has functionalized and classified the cost it shall allocate the costs among the various customer classes.

(4) Cost that are incurred on behalf of one customer or class of customers shall be directly assigned to that customer or class.

(5) Where possible the Commission shall group customers who have similar usage profiles and needs and impose similar costs on the system.

19. (1) The Commission shall use customer class ratios to allocate costs when costs cannot be directly assigned.

Cost allocators

(2) The costs under sub-rule (1) shall be prorated to classes using allocation factors, which are chosen to reflect how the costs are incurred and how a rate class contributed to its share of that activity.

(3) The cost component shall require a different cost allocation factor.

(4) The factor under sub-rule (3) shall represent the actual measures used when a utility assesses these characteristics while developing cost plans.

(5) The factor shall act as an approximation for determining the cost of providing an additional unit of service.

(6) The factors may include the following –

(a) consumption which includes costs such as fuel and other variables that change with the level of consumption using customer sales as a measure of end-use consumption;

(b) demand which includes the peak demand of a utility's customers shall be the main determining factor in most investment decisions, and the costs it incurs;

(c) the customer allocator shall be used to allocate the costs that are not correlated to consumer demand or consumption;

(d) the costs of metering and administrative expenses that depend on the number of customers the utility serves.

(7) The determination of how much revenue requirement to be assigned to each customer class shall be the process of cost allocation.

(8) Each cost shall be apportioned using allocation factors or a set of percentages based on customer characteristics.

(9) The formulae for calculating a cost allocation factor shall be as set out in Schedule 2

(10) The sum of the set of customer allocation factors shall 100 percent and resulting equating shall be as set out in Schedule 3.

(11) Where costs are allocated using the appropriate allocation factor, the aggregate result shall be the allocated cost of service for each class.

(12) Using the cost allocation factors set out in Schedule 2 each component of the revenue requirement shall be allocated amongst each customer class.

(13) Each class shall be assigned a portion of the revenue requirement known as their allocated revenue requirement.

(14) The equation for calculating the allocated revenue requirement of each customer class shall be as set out in Schedule 4.

(15) The sum of each class' allocated revenue requirement shall be the total revenue requirement as set out in Schedule 5.

PART IV – CHARGES

20. (1) A fixed charge shall remain constant regardless of a customer's consumption during a given period. **Fixed charges**

(2) Fixed charges include a minimum charge (to cover some minimum level of electricity or water) or a readiness to service charge which reflects fixed capacity costs.

21. (1) A variable charge shall be applied to customers' bills on the charges basis of their electricity or water consumption. **Variable charges**

(2) A variable charge can be related to either –

(a) an hourly production including volumetric charges; or

(b) the cost of serving maximum demand including extra-capacity charges.

22. (1) A volumetric charge or base cost charge shall be designed to charges recover the cost of hourly electricity or water production and are thus charged to consumers on a per kWh or per m³ basis. **Volumetric charges**

(2) The cost for each unit shall be the same, or may differ depending on how much electricity a customer consumes.

23. A demand charge or extra-capacity charge shall be a proxy for the investment that a utility will need to make in order to serve the demand of a given client. **Demand charges**

24. (1) A two-part charge shall include a fixed component and a volumetric component. **Two-part charges**

(2) A fixed charge can be used in combination with any of the proposed volumetric tariff options.

SCHEDULE 1 A

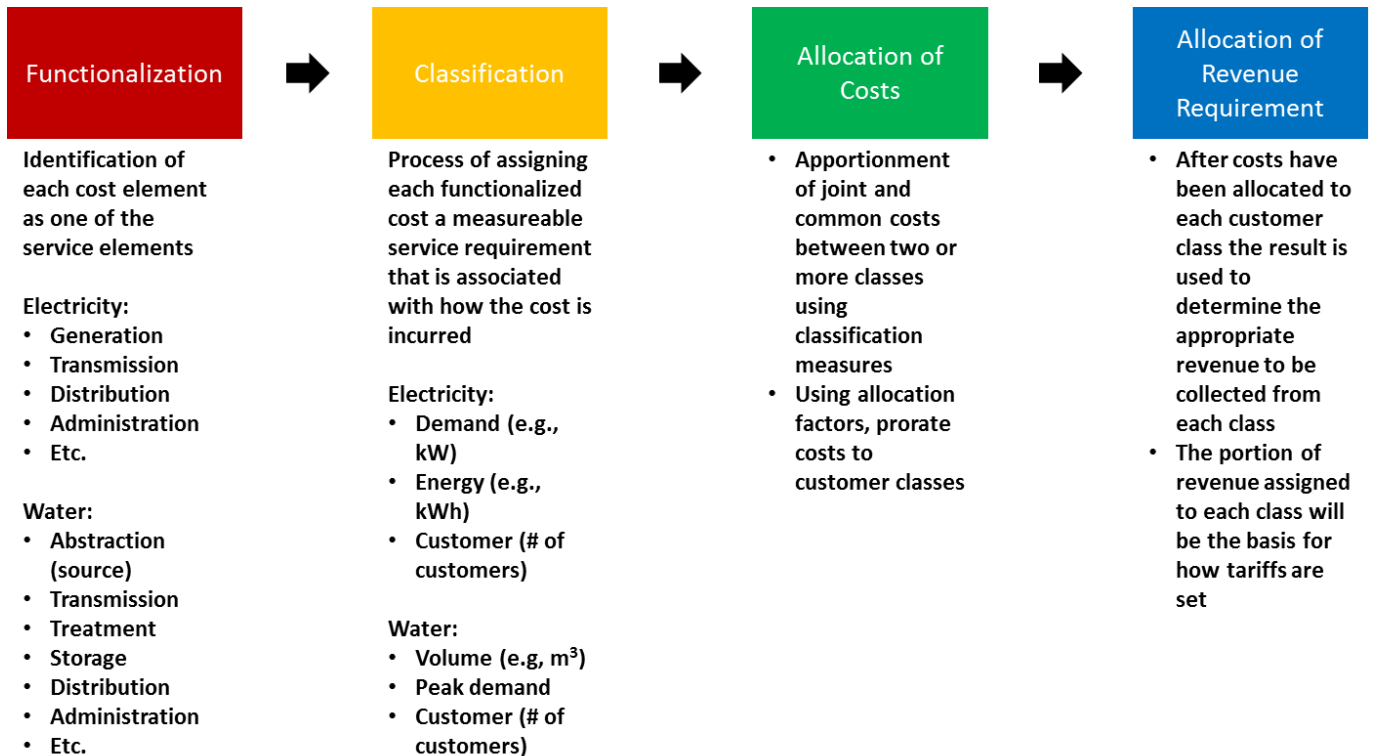
Rule 9(2)

$$RR = DS + CR + DCR + OP + RS - ELA - OR$$

RR	Revenue requirement
DS	Debts service obligations
CR	Cash paid capital improvements
DCR	Depreciation on cash-paid capital improvements
OP	Operating and maintenance expenses
RS	Contribution to reserve fund
ELA	Adjustment to account for excess losses
OR	Sum total of other revenue

SCHEDULE 1 B

Rules 16(1)



SCHEDULE 2

Rules 19(9)

$$CAF_i^j = \frac{CCD_i}{\sum_i^n CCD_i}$$

Where:

CAF is a cost allocation factor j for customer class i ;

CCD is the customer characteristic data for customer i (e.g. number of customers, kWh, MW, etc.);

$\sum_i^n CCD_i$ is the sum of CCD for all customer classes i to n ;

SCHEDULE 3

Rules 19(10)

$$\sum_i^n CAF_i^j = 100\%$$

Where:

CAF is the cost allocation factor j for customer class i .

SCHEDULE 4

Rules 19(14)

$$ARR_i = DS \times CAF_i^j + CR \times CAF_i^j + DCR \times CAF_i^j + OP \times CAF_i^j + RS \\ \times CAF_i^j - LA \times CAF_i^j - OR \times CAF_i^j$$

Where-

ARR is the allocated revenue requirement for customer i ;

DS is the debt service obligations;

CR is cash-paid capital improvements;

DCR is depreciation on cash-paid capital improvements;

OP is operating costs;

RS is any contribution to a reserve fund;

LA an adjustment to account for excess losses;

OR is the sum total of other revenue;

CAF is any allocation factor j for customer i applied to each revenue requirement component.

SCHEDULE 5

Rules 19(15)

$$RR = \sum_i^n ARR_i$$

Where:

RR (revenue requirement) is the sum of all allocated revenue requirements for customers classes i to n .

EXPLANATORY MEMORANDUM

(This explanatory memorandum is not part of these rules but is intended to indicate its general purport)

This statutory instrument is made pursuant to section 66 of the Sierra Leone Electricity and Water Regulatory Commission Act 2011. This instrument is divided into 4 parts.

Part I covers the interpretation and application provisions. The interpretation provision defines words and expressions used throughout the instrument. The application provision stipulates that the instrument applies to Electricity Generation and Transmission Company and the Electricity Distribution and Supply Authority.

Part II covers provisions on tariff formation

Part III covers provisions on allocation of revenue requirement

Part IV covers provisions on charges

Made this 13th day of December, 2019.

MOHAMED D. B. SESAY
Chairman