



Draft Regulations on Tariff Setting Methodology 2019

July 2019

GRENADA

ARRANGEMENT OF REGULATIONS

PART I - PRELIMINARY	4
1 Citation and commencement	4
2 Interpretation	4
PART 2 RETAIL TARIFF.....	8
Division 1: Tariff Setting Policy	8
3 Rate setting principles	8
Division 2: Retail Tariff Structure	9
4 Consumer classes	9
5 Publication.....	9
6 Effective date.....	9
Division 3: Retail Tariff Methodology.....	9
7 Retail tariff components	9
8 Base non-fuel charge.....	10
9 Fuel charge	10
10 Renewable charge.....	11
11 Price cap	11
Division 4: Review and Adjustment of Retail Tariff	11
12 Periodic retail tariff reviews	11
13 Annual adjustment of retail tariff	12
14 Publication	13
15 Effective date (of new tariffs).....	13
PART 3 SERVICE STANDARDS	14
16 Adoption of new service standards.....	14
17 Principles for levels of service standards	14
18 Structure of service standards.....	14

19	Types of standards	14
20	Standard setting process	14
21	Network licensee proposed service standards	15
22	Validity of proposed service standards.....	15
23	Publication.....	15
24	Effective date (of new service standards).....	15
25	Network licensee reporting obligations	16
26	Breach of service standards	16
27	Breach of service standards and annual adjustment of tariffs	16
PART 4 TRANSITIONAL PROCEDURES		16
28	Interim tariff review.....	16
29	Transition to the first periodic tariff review	17
SCHEDULE 1		19
SCHEDULE 2		29
SCHEDULE 3		37

GRENADA

STATUTORY RULES AND ORDERS NO. OF 2019

THE MINISTER IN EXERCISE OF THE POWERS CONFERRED ON HIM UNDER SECTIONS 3 AND 62 OF THE ELECTRICITY SUPPLY ACT 2016 (ACT No. 19 OF 2016) as AMENDED BY THE ELECTRICITY SUPPLY ACT (AMENDMENT) 2017 (ACT No. 33 OF 2017) MAKES THE FOLLOWING REGULATIONS

(Gazetted , 2019).

(Draft)

**Regulations on Tariff Setting
Methodology 2019**

PART I - PRELIMINARY

1 Citation and commencement

- (1) These Regulations may be cited as the Regulations on Tariff Setting Methodology 2019.
- (2) These Regulations come into force on the commencement date.

2 Interpretation

- (1) In these Regulations, unless the context otherwise requires—

“Act” means the Electricity Act;

“annual adjustment of retail tariff” means the adjustment described in sub-regulation 13;

“authorised business” in respect of a network licensee means the business authorised in its network licence and if applicable in his generation licence;

“base non-fuel charge” means the charge described in sub-regulation 8 and Schedule 1;

“CAIDI” is the Consumer Average Interruption Duration Index and has the meaning set in Schedule 2;

“CPI” means Consumer Price Index;

“Cost of Service Study” means an in-depth analysis of the Network Licensee’s cost structure used to identify the cost of providing service to various rate classes or a specific category of Consumer as a function of load and service characteristics;

“cost reflectiveness” means electricity pricing that endeavours to reflect the costs of different patterns of consumption of electricity such as type of user, level of demand, times of use or type of service;

“contribution to Social Fund” means the contribution required by section 70 of the Electricity Act;

“consumer class” means consumer groupings established under sub-regulation 4 and Part D of Schedule 1;

“distribution” means the transport of electricity through the distribution system, and the term “distribute” shall be construed accordingly;

“distribution system” means the medium and low voltage networks and associated equipment as prescribed;

“effective date” in relation to consumer classes, means the date established under regulation 6 and in relation to rates, means the date established under sub-regulation 15;

“Electricity Act” means the Electricity Act, 2016 (the Electricity Supply Act, 2016 amended by the Act N° 33 of 2017);

“fuel charge” means the charge described in sub-regulation 9;

“generation” means the production of electricity from renewable or non-renewable energy sources, and the term “generate” shall be construed accordingly;

“grid or National Grid” means an interconnected transmission and distribution system and facilities which are necessary for the delivery of electricity from suppliers to consumers.

“heat rate” means the efficiency of a generating unit to convert fuel into electric power;

“independent power producer” or “IPP” means a generation licensee from whom a network licensee purchases electricity in accordance with a power purchase agreement;

“kVA” means Kilo-Volt-Amperes;

“kW” means Kilo-watt;

“kWh” means Kilo-watt-hours;

“licence and regulatory fees” include any regulatory and annual fees that the licensee is obliged to pay in accordance with sections 62 (1) (q) of the Electricity Act and 14 of the Public Utilities Regulatory Commission Act as well as any other fee required by the acts and regulations upon issuance, amendment or extension of a licence;

“LTBR” means Government’s most recent Long Term Bond Rate issued by the Regional Government Securities Market;

“MW” means Mega-watts;

“MWh” means Mega-Watt-hours;

“network licensee” means a licence for the transmission, distribution and sale of electricity to consumers granted pursuant to the Electricity Act;

“NFRR” means Non-Fuel Revenue Requirements. This is the revenue required the utility to cover all its cost and achieve a reasonable rate of return on its investment;

“NPI” means Non-fuel Price Index, and it is the factor that captures the annual change in inflation adjusted for targeted efficiency, quality of service changes and the effect of any exogenous factor;

“O&M” means operation and maintenance;

“power purchase agreement” means an agreement between an independent power producer or a generation licensee and the network licensee for the supply of electricity by the independent power producer or the generation licensee as the case may be to a network licensee for the transmission, distribution or sale of electricity to consumers ;

“Q factor” means the Q factor described in Schedule 2;

“Q factor index” means the Q factor index described in Schedule 2;

“RGSM” means Regional Government Securities Market;

“RPI” means Reference Price Index, and it is the CPI adjusted to be neutral of the effects of changes in fuel costs used in the generation of electricity;

“ROE” means Return on Equity;

“ROR” means Rate of Return;

“renewable charge” means the charge described in sub-regulation 10;

“retail tariff review” means a periodic review of retail tariffs described in sub-regulation 12;

“SAIDI” is the System Average Interruption Duration Index and it has the meaning established in Schedule 2;

“SAIFI” is the System Average Interruption Frequency Index and it has the meaning established in Schedule 2;

“self-generator” means a person who generates electricity only for his or her own use and who may also be allowed to sell excess electricity to the network licensee in accordance with the requirements of the Electricity Act and with applicable Regulations;

“self-generator contract” means the agreement for the provision of excess electricity supplied by the self-generator to the network licensee, in accordance with the requirements of the Electricity Act and the Self-Generator Programme in force;;

“service standards” has the meaning established in sub-regulation 19 and in Part B of Schedule 2;

“system losses” means the difference between total electricity generated (including IPPs) that is lost before reaching consumers;

“system technical losses” means the maximum allowable percentage of electricity generated that is lost before reaching consumers;

“supply” means the sale and resale of electricity;

“tariff period” means the period for which tariffs are set under sub-regulation 12;

“tariff proposal” means the proposal submitted by a network licensee in accordance with Part C of Schedule 1 in a retail tariff review;

“test year” means the most recent twelve (12) month of period for which audited financial accounts are available;

“TOU” means Time of Use service. For this type of service consumers are charged different rates depending on the time of the day when electricity is consumed;

“transmission” means the transport of electricity through the transmission system, and the term “transmit” shall be construed accordingly;

“transmission system” means the transport of electricity through high voltage electricity systems, and the transport of electricity for interconnecting the island of Grenada with another island or country as prescribed;

“TOU” means Time of Use service. For this type of service consumers are charged different rates depending on the time of the day when electricity is consumed;

“VAT” means Value Added Tax;

“WACC” means Weighted Average Cost of Capital. This is the opportunity cost of capital proportionally weighted to reflect the expected return on debt and equity;

“X factor” means the X factor described in Schedule 2;

“Z factor” means the Z factor described in Schedule 2.

(2) Unless a term is defined in these Regulations or the context otherwise requires, terms defined by the Act have the same meaning when used in these Regulations.

PART 2 RETAIL TARIFF

Division 1: Tariff Setting Policy

3 Rate setting principles

To achieve the objectives, and conform to the principles, in section 32 of the Electricity Act, the Commission shall comply with this Part in setting retail tariffs for the supply of electricity to consumers.

Division 2: Retail Tariff Structure

4 Consumer classes

(1) A network licensee may, subject to the approval of the Commission, group consumers into classes for the purpose of assigning different rates to each class based on the purpose for which the service is used and cost reflectiveness.

(2) The Commission may recommend, set and approve classes or changes in classes if it considers that the grouping or change:

- (a) is authorised under sub-section 1;
- (b) promotes efficiency;
- (c) is consistent with the national electricity policy established under section 3(a) of the Act;
- (d) is not inconsistent with any direction of the Minister under section 3(d) of the Act;
- (e) targets vulnerable groups to whom a social tariff should be applicable, in which case the social tariff shall be defined and financed in accordance with the Policy established by the Minister.

5 Publication

The Commission shall publish the full list of consumer classes, together with the effective date, after each approval under sub-regulation 4(2) by Notice in the Gazette and on its website.

6 Effective date

(1) Subject to sub-section 2, the Commission, in consultation with the network licensee, shall determine the date from which the classes, or any change in the classes, become effective.

(2) The effective date shall be not less than [28] days after the publication of the notice in the Gazette.

Division 3: Retail Tariff Methodology

7 Retail tariff components

(1) The retail tariff shall comprise the following components -

- (a) the base non-fuel charge;
- (b) the fuel charge;
- (c) the demand or fixed charge
- (d) the renewable charge; and

(2) The base non-fuel charge may differ among Consumer classes [depending on the nature of demand and the load characteristic of the service provided].

8 Base non-fuel charge

(1) The base non-fuel charge is a charge or set of charges on each Consumer that seeks to recover, in the aggregate, the non-fuel revenue requirement of the network licensee.

(2) The non-fuel revenue requirement is the cost - other than the fuel used in the generation of electricity and renewable energy purchased from independent power producers and self-generators - that the Commission considers is prudently and efficiently incurred by a network licensee in meeting the service standards for the tariff period, plus a reasonable return on the rate base.

(3) The non-fuel revenue requirement comprises the building blocks in Schedule 1 Part A and is calculated in the manner set out in Schedule 1 Part B.

(4) In calculating the non-fuel revenue requirement, the Commission must seek to include only costs that are prudently incurred. Where such costs derive from utilisation of electric plant, the plant must be used and useful.

(5) The Commission may by Order published in the Gazette amend Schedule 1 Part B paragraph 3.

9 Fuel charge

(1) The fuel charge is a per kWh charge on each Consumer that seeks to, in the aggregate, recover the monthly efficient cost of fuel used for generation by a generation licensee or an independent power producer.

(2) The fuel charge shall be based on the efficient fuel cost (including shipping, storage, handling and transportation costs) and the efficient conversion of fuel into electricity delivered to the consumer and shall be calculated in accordance with Schedule 3.

- (3) A network licensee shall publish the monthly fuel charge on its website.

10 Renewable charge

(1) The renewable charge is the amount that each Consumer is charged monthly for the cost of renewable energy purchased in accordance with power purchase agreements and self-generator contracts by a network licensee.

(2) The renewable charge is calculated in accordance with Schedule 3.

(3) A network licensee shall show the renewable charge as a separate item on Consumers' electricity bills.

11 Price cap

A network licensee shall charge the rates approved by the Commission in accordance with these Regulations.

Division 4: Review and Adjustment of Retail Tariff

12 Periodic retail tariff reviews

(1) Within 4 years from the commencement date of this Part, and every 5 years thereafter, the Commission shall conduct a retail tariff review to set retail tariff rates

(2) The Commission shall formally instruct the network licensee to submit its retail tariff proposal for changes in the rates at least eighteen (18) months before the due date of the tariff proposal.

(3) The network licensee shall clearly indicate in its retail tariff proposal all service standards, efficiency targets and any modification of the tariff structure that are proposed by the licensee.

(4) The Commission shall conduct the review in accordance with the procedure in Schedule 1 Part E.

(5) Subject to sub-section 3, the Commission shall determine and publish its procedures for a retail tariff review. The procedures shall be consistent with reasonable standards of procedural fairness and the rules of natural justice.

(6) In preparing the procedures the Commission must comply with the following:

- (a) the Commission shall, at least eighteen (18) months before the due date of the tariff proposal, send a notice to a network licensee indicating the due date of the tariff proposal and requiring the network licensee to submit a proposal on or before this due date.
 - (b) the notice may also require that the draft proposal be informed by a load research study, a cost of service study and a least cost expansion study, the terms of reference for which, and the experts engaged for their execution, are to be approved by the Commission;
 - (c) there must be at least twenty five (25) business days for stakeholders to provide written comments on the draft procedures, during which period a public consultation may be held;
 - (d) final procedures must be published on the Commission's website within fifty (50) business days of the close of stakeholder comments, addressing comments made during the consultation process and explaining its reasons for accepting or rejecting the comments.
- (7) The Commission may modify or amend the procedures from time to time, except during the eighteen (18)-month period before the due date for the tariff proposal.
- (8) In amending or modifying the process the Commission must comply with sub-regulation (6).

13 Annual adjustment of retail tariff

- (1) Every year other than the year in which a new retail tariff is approved by the Commission following a periodic tariff review, the Commission shall conduct a retail tariff adjustment in accordance with Schedule 2 to reset retail tariffs and to reflect the effects of inflation, targeted efficiency improvements, quality of service performance and, where relevant, the impact of exogenous factors.
- (2) The Commission shall prepare and publish on its website its procedure for the annual adjustment of the retail tariff including:
- (a) the number of months in advance of the annual tariff review that a network licensee must submit its application for the annual tariff adjustment.
 - (b) the information that the application must contain, which shall include—

- (i) the relevant consumer price index;
 - (ii) the reference price index;
 - (iii) historic and projected sales;
 - (iv) key operational and quality of service indicators; and
 - (v) exogenous costs or benefits.
- (c) The Commission shall complete its review and publish its determination on the tariff application no later than two (2) months after receiving the application for annual adjustment.
- (3) The network licensee shall comply with the terms and requirements set by the Commission in accordance with sub-section 2.
- (4) The network licensee shall ensure that it receives in advance all statistics, data and indexes necessary to submit its application for the annual adjustment.
- (5) If the Commission does not comply with sub-section 4, the network licensee shall not be obliged to comply with the obligation established in sub-sections 2 and 3 until such default is remedied.

14 Publication

The Commission shall publish new tariff schedules in the Gazette and in at least one newspaper of general circulation in Grenada within [14] days after they are approved at a periodic rate review or at an annual rate adjustment.

15 Effective date (of new tariffs)

- (1) Subject to sub-regulation 6 (2), the Commission, in consultation with the network licensee, shall determine the date from which rates approved at a periodic rate review or at an annual rate adjustment become effective.
- (2) The effective date shall be not less than [28] days after the publication of the notice in the Gazette.

PART 3 SERVICE STANDARDS

16 Adoption of new service standards

The network licensee may propose, the Commission may recommend and the Minister may approve new levels of existing service standards or new kind of service standards.

17 Principles for levels of service standards

The levels for service standards shall be based on:

- (a) industry-best practice internationally;
- (b) a network licensee's historical performance; and
- (c) expected service improvements over time.

18 Structure of service standards

- (1) New service standards may be set to increase for each year, or some years, of a tariff period.
- (2) Service standards may be set as:
 - (a) a single standard; or
 - (b) banded standards that allow for varying degrees of penalties or incentives for the utility.

19 Types of standards

- (1) Initial service standards are detailed in Part B of Schedule 2 and include:
 - (a) Quality of Service Standards and Targets;
 - (b) Technical and Financial Losses Standards and Targets.

20 Standard setting process

(1) The service standards shall be set or reviewed during each periodic retail tariff review according to the process set out in Schedule 1 Part E, and new service standards may be proposed by the network licensee in its tariff proposal.

(2) Any other new standards proposed by the Commission and/or approved by the Minister shall be informed to the network licensee at least eighteen (18) months before the due date of the tariff proposal.

21 Network licensee proposed service standards

(1) A network licensee shall in its tariff proposal, include a proposal for all service standards, including—

- (a) levels for service standards;
- (b) compensation levels for violations of service standards;
- (c) rating categories for service standards;

(2) A monitoring plan and procedure shall be prepared by the Commission in consultation with the licensee to measure compliance with service standards.

22 Validity of proposed service standards

Any new service standards proposed by the network licensee shall be approved in accordance with these Regulations and with the Electricity Act, and shall be valid for the next tariff period.

23 Publication

The Minister shall publish approved service standards in the Gazette and in at least one newspaper of general circulation in Grenada within [14] days after they are approved at a periodic rate review.

24 Effective date (of new service standards)

(1) Subject to sub-regulation 6 (2), the Minister, in consultation with the Commission and taking into consideration the proposal of the Network Licensee, shall determine the date from which the new service standards become effective.

(2) The effective date shall be not less than [28] days after the publication of the notice in the Gazette.]

25 Network licensee reporting obligations

A network licensee shall, in accordance with the monitoring plan approved by the Commission, track the indicators and report information in the manner directed by the Commission for the purpose of measuring the network licensee's performance in meeting the service standards.

26 Breach of service standards

If a network licensee fails to comply with a service standard, the network licensee is liable to pay compensation to the affected consumer according to the compensation penalties and sanctions set by Order by the Minister after consultation with the Commission, which may have taken into account the levels proposed by the Licensee.

27 Breach of service standards and annual adjustment of tariffs

If the Network Licensee fails to comply with any service standard listed in Schedule 2 Part B or previously established in its licence, in Regulations or approved during a periodic tariff review, the Commission shall, during the following annual adjustment, as it corresponds, make adjustments to the average non-fuel charge to capture this effect in accordance with the Q Factor established during the latest tariff review.

PART 4 TRANSITIONAL PROCEDURES

28 Interim tariff review

(1) If the information available does not enable compliance with Part 3 and Schedules 1, 2 or 3 of these regulations, the Commission may initiate an interim tariff review and approve a new retail tariff in accordance with this regulation.

(2) Despite Part 3 and Schedules of these regulations and having regard to the methodology already used by the network licensee, the Commission may apply during the interim tariff review a different tariff methodology than the one required by Schedules 1, 2 and 3, which among others may include:

- (a) The adjustment to the cost of service of the network licensee based on the expected costs of improved street lighting systems;
- (b) The introduction of a modified Fuel Charge formula which may include heat rate and system losses targets based on the Fuel Charge described in Schedule 3;
- (c) The introduction of a new Renewable Charge to allow the Network Licensee's renewable electricity purchases to be treated as a pass-through to Consumers.

(3) In case of initiating an interim tariff review, the Commission shall request the network licensee, in writing, to submit an application for an interim tariff application.

(4) The tariff request mentioned in sub-regulation 28 (3) shall indicate the factors that should be addressed in the interim tariff application of the network licensee;

(5) The application for an interim tariff shall be submitted by the network licensee within three months of the receipt of the request of the Commission.

(6) The Commission shall adopt a decision concerning the adoption of a new retail tariff no later than three (3) months of the receipt of the application submitted by the network licensee.

(7) If an interim tariff review is conducted and a new retail tariff is approved in accordance with this regulation, the Commission shall initiate afterwards and in accordance with sub-regulation 12 the first periodic tariff review.

29 Transition to the first periodic tariff review

(1) As part of the transition to the first periodic tariff review to be done in accordance with these Regulations, the network licensee shall engage the services of independent consultants to prepare:

- (a) a Load Research Study;
- (b) a Cost of Service Study; and
- (c) a Least Cost of Expansion study.

(2) The Commission shall approve the terms of reference related to the selection of consultants responsible for preparing the studies mentioned in sub-regulation 29 (1), and the independent consultants selected shall be done in accordance with best practice for procuring such services.

(3) If the Commission shall not be obliged to consider or follow the recommendations and conclusions included in the studies mentioned in sub-regulation approvals of the Commission required by sub-regulation 29 (2) are not complied with 29 (1) when adopting decisions regarding the periodic tariff review.

(4) The tariff application of the network licensee for the first periodic tariff review shall be submitted no later than the date specified by the Commission in accordance with these regulations and Part E of Schedule 1, and shall include:

- (a) A raising block structure in the Domestic Service Class in order to introduce measures of relief applicable to low-income Consumers and to promote demand-side management practices;
- (b) A redefinition of the Commercial and Industrial service Classes on the basis of the voltage level at which the Consumer is connected to the electricity network of the network licensee;
- (c) The establishment of a Hotel Service Class;
- (d) A tariff for a Stand-by Service Class for self-generators interested in providing back-up, supplementary and ancillary services;
- (e) Provisions for billing of consumers who are part of the Industrial Service Class on the basis of kW or kVA demand charges;
- (f) Examination and analysis of the feasibility, efficiency and practicality of introducing Time-of-Use (TOU) and interruptible rates;
- (g) The five-year business plan of the network licensee, informed by a Least Cost Expansion Study.

SCHEDULE 1

Base Non-fuel Charge

(Sub-regulations 8 (3) & 12 (3))

PART A – Non-Fuel Revenue Requirement Building Blocks

1. The non-fuel revenue requirement comprises the following building blocks:
 - 1.1. The return on rate base - the weighted average cost of capital (WACC) applied to the rate base;
 - 1.2. Depreciation of the rate base;
 - 1.3. Approved operation and maintenance costs for the transmission, distribution and supply of electricity to the consumers of the network licensee;
 - 1.4. Approved operation and maintenance costs incurred by the network licensee in the purchase of electricity from fossil fuels from generation licensees and independent power producers excluding fuel costs and renewable energy purchases;
 - 1.5. Taxes; Licence Fees;
 - 1.6. Contribution to the Social Fund.

PART B – Non-Fuel Tariff Mechanism Calculation

2. The Licensee's Non-Fuel revenue requirement (NFRR) shall be based on a 'Test year'.
 - 2.1 The test year shall be based on the Network Licensee's most recent audited financial accounts for a 12-month period. To arrive at the Test year costs the audited accounts shall be adjusted to reflect:
 - (a) Normal operating conditions.
 - (b) Investment in a major addition to the rate base such as a new power plant as reflected in the Licensee's 5-year Business Plan. The cost included in Test Year should be known and measurable, and the investment shall be deemed to be used and useful during the review period.

2.2. The Licensee's Non-Fuel revenue requirement (NFRR) shall be computed as follows:

$$NFRR = \text{Non-fuel O\&M costs} + \text{Depreciation} + \text{Taxes} + \text{licence and regulatory fees} + \text{Contribution to Social Fund} + \text{Return on Investment}$$

2.3. The components of the NFRR shall include:

- (a) Non-fuel O&M costs: refer to all necessary and prudently incurred expenses which are not directly associated with investment in capital plant. The Non-fuel O&M costs shall include, but not be limited to expenses for salaries and other costs related to employees; operating and maintenance costs of generation, transmission and distribution and supply facilities as well as the non-fuel component of IPP costs, where applicable; third party services; interest costs on other borrowings not associated with capital investment, if applicable; rents and leases on property associated with the Licensee operations; taxes which the Network Licensee is required to pay other than income taxes of the Network Licensee; and other costs which are determined to be reasonably incurred by the Network Licensee in meeting Consumers demand for electricity services.
- (b) **Depreciation:** represents the portion of the Licensee's capital deemed to have been used over the period. The depreciation component shall be calculated by applying annual depreciation rates, as provided at Schedule 5, to the gross value of the individual plant asset accounts.
- (c) **Taxes:** may exist in several forms, including income taxes and property taxes. Where taxes represent expenditures directly payable by Licensee to the Government of Grenada they are to be included in the Licensee's NFRR. The Environmental tax and the Value Added Tax (VAT) which are charged on Consumers' bills shall not be included in the revenue

requirement. Loss carry-forwards and any incentives to encourage capital investments are not included in the calculation of income taxes.

- (d) **Licence and Regulatory Fees.** These fees include the fees that the Licensee shall pay for the issuance, amendment or extension of licences, annual fees due to fund the Commission in accordance with section 14 of the Public Utilities Regulatory Commission Act and section 62 (1) (q) of the Electricity Act, and any other regulatory fee established by the Regulations of the Minister pursuant to the Electricity Act and/or the Public Utilities Regulatory Commission Act.
- (e) **Contribution to Social Fund.** This contribution is due and determined in accordance with section 70 of the Electricity Act and related regulations.
- (f) **Return on Investment:** is derived from the approved Rate Base of the Licensee and the required rate of return which allows the Network Licensee the opportunity to earn a return sufficient to provide for the requirements of consumers and acquire new investments at competitive costs. The Commission shall determine a working capital component of the Rate Base.

2.4. Calculation of Return on Investment: The return on investment shall be derived by multiplying the Network Licensee's Rate Base by the Weighted Average Cost of Capital (WACC), as follows:

- (a) The return on investment shall be derived by multiplying the Network Licensee's Rate Base by the Weighted Average Cost of Capital (WACC), that is:

$\text{Return on Investment} = \text{WACC} \times \text{Rate Base}$

- (b) The Rate Base is the net-investment made by the Network Licensee for the purpose of supplying electricity to its Consumers. In the rate-making process the Rate Base shall include appropriate adjustments to take account of:
- (i) known and measurable changes in the plant investment base and shall be increased or reduced by any positive or negative working capital requirement that may exist at such time;
 - (ii) Accumulated deferred taxes;
 - (iii) Other adjustments approved by the Commission.
- (c) Working capital shall include, among other things, the cost of an appropriate level of fuel which is held in inventory, cost of appropriate levels of other inventories and an appropriate percentage of annual non-fuel operating expenses less any appropriate offsets.
- (d) The Weighted Average Cost of Capital (WACC) shall be based on the capital structure approved by the Commission and shall balance the interests of investors and consumers. The WACC shall be sufficient to enable the Network Licensee, under prudent management, to inspire confidence in the financial sustainability of the business and thereby be in a position to maintain its credit and attract additional capital to the business.
- (e) The allowed Rate of Return on Equity (ROE) which is a component of the WACC shall be equal to the rate of Government's most recent long term bond issued by the Regional Government Securities Market (RGSM) plus five and a half percentage points.

$$ROE = LTBR + 5\frac{1}{2}\%$$

Where, LTBR = Long term bond rate of the most recent bond issued by the RGSM.

- 2.5. If it is deemed prudent, an assumed debt to equity ratio may be used to determine the applicable WACC. Such assumed debt to equity ratio shall conform to the customary practices of electricity utility operation recognising the specific peculiarities of operating exclusively in Grenada.

Part C – Depreciation on Rate Base

3. **Depreciation on rate base.** To calculate depreciation, the Commission shall apply the annual depreciation rates below to the gross value of the individual plant asset accounts [of the rate base].

Capital Item	Rate per Annum (%)	Depreciable Lives (Yrs.)
Building – Permanent	2	50
Building – Temporary	5	20
Fencing	5	20
Wooden Jetties	5	20
Furniture & Office Equipment	20	5
Oil Storage Tanks, Pipelines & Equipment	3	33⅓
Diesel Engines	4	25
Alternators, switchboard, switchgear & transformers	4	25
Transmission & Distribution Lines	2½	40
Meters	2½	40

Instruments	5	20
Refrigeration plants	4	25
Land clearance equipment	10	5
Vehicles	15	7
Motor Launches	5	20
Hydro-electric turbines & control gear	4	25
Bicycles	10	5
Dams, intake works & water conduits	2	50

Part D – Consumer Service Classes

4. Separate Non-Fuel Charges shall be charged to consumers based on the purposes for which electricity is used (“service classes”).

4.1. Consumer Service Classes shall include:

- (a) **Domestic Service:** applicable to all electricity supplied to any premises used exclusively for private residential purposes.
- (b) **Industrial Power Service:** applicable to all electricity supplied to any premises on which there are installed, for the purpose of industry, electric motors having an aggregate maximum power output rating of not less than 4 kW or 4.5 kVA or 6 horsepower and not normally in use between the hours of 6:00 p.m. and 10:00 p.m. For the purpose of this paragraph, one horsepower shall be deemed to be equal to three-quarters of one kilowatt.
- (c) **Commercial Power Service:** applicable to all electricity supplied to any premises other than premises used exclusively for private residential purposes or to which the industrial power service class is applicable.

- (d) **Hotel Power Service:** applicable to all electricity supplied to an establishment providing accommodation, meals, and other services for travellers and tourists. This type of service may be connected to either low tension or high tension circuits on the grid.
 - (e) **Stand-by Power Service:** applicable to self-generators to meet their stand-by, supplementary and auxiliary requirement. This service will be made available based on a contract to take supply from the Network Licensee at one location through one meter at a single delivery point
 - (f) **Streetlight Service:** applicable to Public Authorities and Local Municipalities to provide lighting on public roadways, streets, parks, gardens and other public areas.
- 4.2. An amendment to the service classes listed in this Part of this Schedule may be proposed by the network licensee and approved by the Commission.

PART E – Retail Tariff Review Procedure

5. The Interim Tariff Review, the First Periodic Tariff Review and subsequent periodic tariff reviews shall be subject to the procedural requirements specified in this Part.
- 5.1. An Interim Tariff Review may be initiated by the Commission in the circumstances, terms and under the conditions and requirements established in sub-regulation 28.
 - 5.2. The First Periodic Tariff Review is subject to the following:
 - 5.2.1. Within three (3) months from the adoption of these regulations and at least fifteen (15) months before the date of submission of the tariff proposal of the network licensee, the Commission shall instruct the network licensee to:
 - (a) submit its retail tariff proposal on the date specified by the Commission;

- (b) prepare the terms of reference for the selection of the independent consultants who shall prepare the studies required by sub-regulation 29;
- (c) inform the Commission of the Effective Date of the new tariff.

5.2.2. The selection of independent consultants shall be done in accordance with the terms of reference which were previously approved by the Commission in accordance with sub-regulation 29.

5.2.3. The Studies prepared by the independent consultants shall be submitted to the network licensee and to the Commission in accordance with the Terms of Reference, and shall be subject to the approvals there specified.

5.2.4. The tariff application of the network licensee related to the First Periodic Tariff Review shall be submitted on the date specified by the Commission.

5.3. Subsequent periodic tariff reviews shall occur once every five (5) years and the network licensee shall submit its tariff proposal and at least 15 months before the end of each tariff review period.

5.4. The tariff application of the network licensee submitted in a periodic tariff review shall include:

- (a) a proposal for all components of the tariff in accordance with these regulations and schedules;
- (b) a proposal for all service standards, for compensations in case of breach of service standards and methods and equipment for monitoring and auditing compliance of those standards in accordance with sub-regulation 21.

5.5. In addition to the requirements of paragraph 5.4, the tariff application of the network licensee to be submitted during the First Periodic Tariff Review shall also comprise:

- (a) the content specified by sub-regulation 29 (4), and
- (b) the Load Research Study, the Cost of Service Study and the Least Cost Expansion Study, prepared by independent consultants, if they were not previously submitted to the Commission.

5.6. The Commission must publish the draft tariff proposal and related documents and seek written submissions from the public, within ten (10) business days of receipt and allowing at least thirty (30) business days for consultation and submission of opinions by any stakeholder, licensee, permit holder, authority,

consumer and public in general. The Commission must also hold stakeholder consultation sessions during this period, including at least one consultation to solicit feedback from the public.

5.7. To comply with the consultations required by this Schedule, the Commission shall:

- (a) make available in its offices and/or on its website the draft tariff proposal and related documents submitted by the Licensee for consultation during at least thirty (30) business days;
- (b) hold a public hearing for consulting the opinion of stakeholders, licensees, permit holders, authorities, consumers and public in general about the draft tariff proposal and related documents submitted by the Licensee.
- (c) at least thirty (30) business days before the public hearing, inform and publish in one newspaper of general circulation in Grenada and on its website a notice indicating the following:
 - (i) the date, hour and place where the public hearing will be held;
 - (ii) days, place and hours, during which the draft tariff proposal and related documents submitted by the Licensee shall be available for consultation, and the links where any relevant information is available in its own website;
 - (ii) deadline, requirements and formalities that interested persons should comply with for submitting written opinions concerning the draft tariff proposal and related documents submitted by the Licensee;
 - (iii) deadlines, formalities and all other requirements that interested persons should comply with for requesting participation in the public hearing;
 - (iv) information about the right of stakeholders, licensees, permit holders, consumers, authorities and the public in general to participate in the public hearing and requirements to do so;
 - (v) information on the procedure applicable to public hearings.

- 5.8. The Commission may, in addition to the public hearing, issue one or more consultation documents during the consultation period.
- 5.9. The Commission must then publish on its website and no later than fifty five (55) business days after the end of stakeholder and public consultations, a draft decision setting out:
- (a) The Commission's preliminary decision on the revenue requirement.
 - (b) Instances where the Commission has not accepted elements of the network licensee's draft tariff proposal and reasons why it has not accepted those elements of the draft tariff proposal.
 - (c) The Commission's decisions in substitution of those elements of the draft Proposal it has not accepted, and the reasons for those decisions.
 - (d) How the Commission has addressed the issues raised through the consultation process.
- 5.10. A network licensee then has forty (40) business days to submit a revised tariff proposal, unless the Commission grants additional time not exceeding 10 business days. The Commission must publish the revised tariff proposal, within ten (10) business days, and request the public to make written submissions on the draft decision and revised Proposal within thirty (30) business days.
- 5.11. The Commission must publish, no later than eleven (11) months after receiving the network licensee's tariff proposal and no later than forty (40) business days after the close of public comments on the draft Determination and revised Proposal, a final decision setting out the new retail tariffs approved, detailing:
- (a) The Commission's final decision on the revenue requirement;
 - (b) instances where the Commission has not accepted elements of the revised tariff proposal and reasons why it has not accepted those elements;
 - (c) the Commission's decisions in substitution of those elements of the revised Proposal it has not accepted, and the reasons for those decisions;
 - (d) how the Commission has addressed the issues raised through the consultation process.

SCHEDULE 2

(Sub-regulation 13)

Part A: Annual Adjustment of Base Rate

1. During an annual adjustment of the retail tariff, the average Non-fuel Base rate (CAP_n) shall be adjusted by the following formula:

$$CAP_n = CAP_{n-1}[1 + \Delta NPI]$$

Where:

CAP_n \equiv Average Non-fuel price cap for the current year, n.

CAP_{n-1} \equiv Average Non-fuel price cap in the previous year, n-1.

ΔNPI \equiv the change in the Non-fuel price index

2. The annual change in the non-fuel price index shall include adjustment factors for inflation, efficiency, quality of service and exogenous events. The annual change in the non-fuel price index shall be determined by the following formula:

$$\Delta NPI = \left[\left(\frac{RPI_n - RPI_{n-1}}{RPI_{n-1}} \right) \pm X \pm Q \pm Z \right]$$

Where:

RPI_n \equiv the Reference Price Index in the current year, n.

RPI_{n-1} \equiv the Reference Price Index in the previous year, n -1.

X \equiv the X-factor (i.e. the off-set to inflation based on expected efficiency gains)

Q \equiv the Q-factor (i.e. the off-set to inflation based on changes in the quality of service)

Z \equiv the Z-factor (i.e. the allowed adjustment to price to capture the effect of exogenous factors)

3. **Adjustment for Inflation:** the average non-fuel rate in any given year between a retail tariff review shall be adjusted for changes in the general price level in the economy by way of the Reference Price Index.

4. **Reference Price Index (RPI):** shall be calculated based on the Consumer Price Index (“CPI”) prepared by the Central Statistical Office of the Government or any successor office thereof for each month in accordance with international standards for the preparation of indexes and published and available monthly. To determine the RPI, the CPI shall be adjusted so as to be neutral with respect to the impact of changes in the cost of diesel or other fuel supplied for use by the Company’s generators and in the cost of electricity. In the event that the CPI is no longer published by the Government, or there is any material change in the composition of, or the methodology for calculating the CPI from that in effect on the commencement date, the Commission and the network licensee shall agree upon a substitute price index or methodology; provided that if an annual adjustment would otherwise be made but there has been no agreement on a substitute price index or methodology, such annual adjustment (as defined in the preceding paragraph) shall be the greater of (i) the annual adjustment for the prior year, or (ii) the average annual adjustment for the preceding three calendar years for which RPI was determined in accordance with this paragraph. The Commission shall provide the network licensee with at least ninety (90) days prior notice of any proposed change in the composition of the CPI, together with a description of any substitute index or methodology which it proposes to use, and the Company shall have a reasonable opportunity to comment on such methodology prior to adoption. In the event that the Commission and the network licensee do not reach an agreement regarding a replacement measure of CPI and RPI within a period of ninety (90) calendar days, the matter shall be referred to arbitration.
5. **Annual X-factor:** is based on the expected productivity gains of the licensed utility and shall be an offset to the change in price caused by inflation. The X-factor is to be set to equal the difference in the expected total factor productivity growth of the network licensee and the general total factor productivity growth of firms whose price index of outputs reflect the price escalation factor.
6. **The Allowed Q-factor:** is to be based on the benchmark quality of service to Consumers and shall adjust the annual price escalation rate to capture changes in the quality of service. The Q-factor index shall be a symmetrical adjustment to the price escalator based on the construct developed by the Commission.
 - 6.1. The factor Q index shall:
 - (a) be a symmetrical composite index derived from the System Average Interruption Duration Index (SAIDI) and the System Average Interruption Frequency Index (SAIFI) defined that captures improvements and deterioration

in the technical performance of the electricity system, in accordance with Part B of this Schedule.

- (b) reflect the effect of the duration and frequency of outages, and compliance of other quality of service standards listed in Part B of this Schedule.

7. The Allowed Z-factor: is a change in the price escalator permitted by the Commission to reflect changes in the costs borne by the network licensee arising from a change of law, circumstances or events that have an exogenous effect on the network licensee. A Z-factor adjustment shall only be allowed if change of law, circumstances or events that:

- (a) affect the licensee's costs;
- (b) are not due to the licensee's managerial decisions; and
- (c) are not captured by the other elements of the price-cap mechanism.

8. Z-factor or Exogenous Events: The following shall constitute exogenous events:

- (a) "Change of Law" shall include, subject to paragraph 2 of this Schedule, the enactment of any laws, regulations or decrees by any governmental authority, including without limitation, any business levy or debt service levy or income, withholding, VAT, excise, employment, property, customs, stamp, foreign exchange, sales, gross receipts and use (or consumption) imposts, duties or taxes, hereinafter collectively referred to as "Taxes") or (ii) the amendment, modification, or repeal by any governmental authority of any laws, regulations or decrees (including any change in interpretation or enforcement by any governmental authority of any such laws, regulations or decrees) in operation on the commencement date, including any Taxes, which laws, regulations or decrees pertain to, or affect, the Company's undertaking.
- (b) "Change in Circumstances" shall include any Natural Event, any Political Event or any Environmental Event.
- (c) "Natural Event" shall mean fire, earthquake, unusual flood, volcanic activity, storm, hurricane, lightning, tide (other than normal tides), tsunamis, perils of the sea, accidents to harbours, docks, canals, or other facilities which are adjuncts of shipping or navigation, epidemic, quarantine, or any other event, matter or thing, wherever occurring, which shall not be within the reasonable control of the Company.

- (d) “Political Event” shall include breach by any public body of any of the provisions of the Act, any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, revolution, embargo, insurrection, riot, public disorder, act of terrorism, or sabotage; labour disturbances or disruption not caused by the Company, including strikes or work stoppages which are either widespread, nationwide or of a political nature; expropriation, compulsory requisition, closing of harbours, docks, canals or other facilities which are adjuncts of shipping or navigation, and any other event of a political nature which shall not be caused by the Company.
9. **Z-factor Materiality:** an exogenous factor shall be deemed to be sufficiently material to be treated as a Z-factor adjustment only if the annual incremental costs or savings to the Network Licensee that result therefrom amount to at least 2% of the network licensee’s annual nonfuel rate for the given year.
10. **Price-cap Adjustment Limitations:** in carrying out the annual adjustment the ‘Weighted Average Consumption Charges’ for each service class “c” in any calendar year “n” shall be subject to the following two limitations:
11. The Weighted Average Consumption Charge (ACC_n) of all the classes in the basket must be less than or equal to the price cap (CAP_n), as shown in the formula below:

$$ACC_n \leq CAP_n$$

The Weighted Average Consumption Charge (ACC_n) being:

$$ACC_n = \frac{\sum (CC_{c,n} \times Q_{c,n})}{\sum Q_{c,n}}$$

Where:

$CC_{c,n} \equiv$ Average price for Consumer class ‘c’ in year ‘n’

$Q_{c,n} \equiv$ kWh projected to be sold for Consumer class ‘c’ in year ‘n’

12. The change in price in any given Consumer class must be less than or equal to the change in weighted average consumption price, as shown in the following formula:

$$\left(\frac{CC_{cn} - CC_{cn-1}}{CC_{cn-1}}\right) \leq 1.2 \left(\frac{ACC_n - ACC_{n-1}}{ACC_{n-1}}\right)$$

Part B- Initial Quality of Service Standards and Targets

1. Standards and Targets for Service Interruption, Connections, and Reconnections and Initial Consumer Invoicing

- 1.1. The Licensee shall achieve and maintain the quality of service standards and targets listed below in this part with regard to interruptions, consumer connections and reconnections, and initial consumer.

Standard	Unit	Minimum/ Maximum	(2018) Baseline	(2021) Target
SAIDI	Hours	Maximum	5.8	5.5
SAIFI	Interruptions per consumer	Maximum	6.7	6.4
CAIDI	Unit	Maximum	0.88	0.85
Response to consumer complaints	Days	Maximum	5	4
Connection of new residential and other simple installations	Days	Maximum	5	5
Connection of new complex installations	Days	Maximum	30	30

Issue of first bill	Days	Maximum	30	30
Reconnection after wrongful disconnection	Hours	Maximum	5	4
Reconnection after payment of arrears	Hours	Maximum	24	24

1.2. In this Regulation-

“SAIDI” means System Average Interruption Duration Index, being the average outage duration for each consumer served and calculated as the sum of all consumer interruptions, in hours, divided by the total number of consumers served by Licensee.

“SAIFI” means System Average Interruption Frequency Index, being the average number of interruptions that a consumer experiences in a year and calculated as the total number of consumer interruptions divided by the total number of consumers served by Licensee.

“CAIDI” means Consumer Average Interruption Duration Index, being the average outage duration per consumer and calculated as the sum of all interruptions, in hours, divided by the total number of interruptions.

“Response to consumer complaints” means the maximum allowable average number of days to acknowledge and begin addressing a consumer’s complaint.

“Connection of new residential and other simple installations” means the maximum allowable number of days required to connect a consumer after the consumer has submitted a complete application and any necessary permits. “Simple installations” means installations that do not require complex connections, for example, those installations not requiring line extensions or construction.

“Connection of new complex installations” mean the maximum allowable number of days required to connect a consumer’s complex installation after the consumer has submitted a complete application and any necessary permits, and “complex installation” means installations that require complex connections, such as line extensions or construction

“Issue of first bill” means the allowable average number of days required to issue the first electricity bill after a consumer is first connected at a given premises.

“Connection after wrongful disconnection” means the maximum allowable average number of hours required to reconnect a consumer who, in the opinion of the Commission after review of any evidence submitted by the consumer and/or the Licensee, has been wrongfully disconnected.

“Reconnection after payment of arrears” means the maximum allowable average number of hours required, after a consumer has paid outstanding debts to the Licensee, to reconnect the consumer who has been disconnected due to non-payment of such debts.

2. Technical and Financial Losses Standards and Targets

2.1. System Technical Losses, Collection Rate, and Outstanding Sales Standards and Targets

The Licensee shall achieve and maintain the following standards and targets with regard to technical and financial losses:

Standard	Unit	Minimum/ Maximum	(2018) Baseline	(2021) Target
System technical losses	%	Maximum	7.3%	6.9%
Collection rate	%	Minimum	85	95
Outstanding sales	Days	Maximum	55	45

2.2. In these Regulations:

“Collection rate” means the percentage of revenue collected on a yearly basis, calculated as revenues collected from consumers divided by revenues billed to consumers;

“Outstanding sales” means the maximum allowable average number of days outstanding for the Licensee’s collection of accounts receivable from consumers;

“System technical losses” means the maximum allowable percentage of electricity generated that is lost before reaching consumers.

- 1.3. Other technical and financial losses and standards, including Consumer Ratios Standards and Targets may be set in accordance with the Electricity Act and the procedure indicated in these Regulations.

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SCHEDULE 3

Fuel and Renewable Charge Calculation

(Sub-regulation 9(2))

1. Fuel Charge. This is calculated by adding the annual residual fuel rate and the average monthly fuel for the current month and the two previous months.

1.1 The monthly fuel rate is cost of fuel net of efficiency adjustments specified by the Commission, in a given month, divided by the kWh consumption by Consumers during the given month.

1.2 The annual residual fuel rate (ARFR) is the over or under-recovered fuel cost over a twelve-month period specified by the Commission divided by billed sales net of renewable purchases over the same twelve-month period. It is zero for the first year that Part 3 comes into force after which it shall be derived as follows:

$$ARFR = \frac{\sum (FC_n - FR_n) E_n}{\sum E_n}$$

1.3 The fuel charge (FC_n) in any given month, n , is the rolling average of the fuel rate (FR_n) for the current month and the prior two months, plus the annual residual fuel rate (ARFR) as set out in the following formula:

$$FC_n = \left[\frac{FR_n + FR_{n-1} + FR_{n-2}}{3} \right] \pm ARFR$$

**Where: n = current month, $n-1$ = previous month and $n-2$
= 2 months before n**

1.4 Fuel cost net of efficiency for month n by the fuel rate is calculated in the following manner:

Where:

$$F R_n = \frac{F_n}{E_n} \left(\frac{H_T}{H_A} \right) \left(\frac{1 - S_A}{1 - S_T} \right)$$

FR_n = Monthly Adjustment Fuel Rate in EC\$ per kWh rounded to the nearest one-hundredth of a cent applicable to bills rendered during the current Billing Period.

F_n = Total cost of fuel in EC\$ used in the production of energy for the period.

E_n = The kWh energy sales for the billing period net of renewable purchases.

H_T = The system heat rate target in kJ/kWh determined by the regulator.

H_A = The actual system heat rate in kJ/kWh derived from the production of energy during the period.

S_T = The system losses rate target (expressed as a percentage of net generation) determined by the regulator.

S_A = The actual system losses (expressed as a percentage of net generation) registered during the billing period.

2. **Renewable Charge.** This is the network licensee's actual monthly cost of renewable energy purchased from independent power producers and self-generators, in accordance with the terms of Power Purchase Agreements and Self-Generator Contracts, respectively, divided by the renewable kWh consumption by Consumers during the given month.