
GRENADA**ARRANGEMENT OF REGULATIONS**

PART I PRELIMINARY	3
1. Citation and commencement	3
2. Interpretation	3
PART 2 RETAIL TARIFF	5
<i>Division 1: Tariff Setting Policy</i>	5
3. Rate setting principles	5
<i>Division 2: Retail Tariff Structure</i>	5
4. Customer classes	5
5. Publication.....	6
6. Effective date.....	6
<i>Division 3: Retail Tariff Methodology</i>	6
7. Retail tariff components	6
8. Base non-fuel charge	6
9. Fuel charge	7
10. Renewable charge.....	7
11. Price cap	8
<i>Division 4: Review and Adjustment of Retail Tariff</i>	8
12. Periodic retail tariff reviews	8
13. Annual adjustment of retail tariff	9
14. Publication.....	10
15. Effective date.....	10
PART 3 SERVICE STANDARDS.....	10

16. Service standards categories.....	10
17. Principles for levels of standards.....	10
18. Structure of standards	10
19. Types of standards	11
20. Standard setting process	11
21. Network licensee proposed standards	11
22. Approval of proposed standards	12
23. [Publication	12
24. Effective date.....	12
25. Network licensee reporting obligations	12
26. Breach of guaranteed standards.....	12
27. Breach of general standards.....	12
PART 4 TRANSITIONAL PROCEDURES	12
28. Information to be required.....	12
29. Adjustments that may be made.....	13
SCHEDULE 1.....	14
SCHEDULE 2.....	19
SCHEDULE 3.....	21

These draft Regulations are presently under review by the Government and experts provided through technical assistance to Grenada. Afterwards they will be subjected to a ‘scrubbing’ process inherent with law making by an Independent Consultant and together with inputs from consultations, substantial revisions are anticipated. Dissemination at this stage is purely for the purpose of wider stakeholders' feedback.'

GRENADA

STATUTORY RULES AND ORDERS NO. OF 2016

THE MINISTER IN EXERCISE OF THE POWERS CONFERRED ON HIM UNDER SECTIONS 31(3) AND 61 OF THE ELECTRICITY SUPPLY ACT 2015 (ACT NO. OF 2015) MAKES THE FOLLOWING REGULATIONS

(Gazetted , 2016).

PART I PRELIMINARY

Citation and commencement

1 (1) These Regulations may be cited as the Electricity Supply (Rates and Service Standards) Regulations 2016.

(2) These Regulations come into force on the commencement date.

Interpretation

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

“Act” means the Electricity Supply Act 2016;

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

“authorised business” in respect of a network licensee means the business authorised in its licence;

“base non-fuel charge” means the charge described in regulation 8;

“cost reflectiveness” means electricity pricing that endeavours to reflect the costs of different patterns of consumption of electricity including any one or more of the following: type of user, time of use or type of service;

“customer class” means customer groupings established under regulation 4;

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

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

“general standards” has the meaning in regulation 19(2);

“guaranteed standards” has the meaning in regulation 19(1);

“independent power producer” means a person from whom a network licensee purchases power in accordance with a power purchase agreement.

“Integrated Resource Plan” has the same meaning as in the Electricity Supply (Integrated Resource Planning and Procurement) Regulations;

“non-fuel revenue requirement” has the meaning in regulation 8(2);

“power purchase agreement” has the same meaning as in the Electricity Supply (Integrated Resource Planning and Procurement) Regulations;

“rate base” means a network licensee’s assets in respect of which it is allowed to earn a return;

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

“retail tariff review” means a retail tariff review described in regulation 12;

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

“self-generator” means a person who has a self-generator contract;

“self-generator contract” has the same meaning as in the Electricity Supply (Integrated Resource Planning and Procurement) Regulations;

“service standards” means the standards set under Part 3;

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

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

“test year” means the most recent 12 month period for which audited financial accounts are available.

(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

Rate setting principles

3 To achieve the objectives, and conform to the principles, in section 31, the Commission shall comply with this Part in setting retail tariffs for the supply of electricity to customers.

Division 2: Retail Tariff Structure

Customer classes

4 (1) A network licensee may, subject to the approval of the Commission, group customers 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 approve classes or changes in classes if it considers that the grouping or change:

- (a) is authorised under subregulation (1);
- (b) promotes efficiency;
- (c) is consistent with the national electricity policy established under section 3(a); and

- (d) is not inconsistent with any direction of the Minister under section 3(d).

Publication

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

Effective date

6 (1) Subject to sub-regulation (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

Retail tariff components

7 (1) The retail tariff shall comprise the following components—

- (a) the base non-fuel charge;
- (b) the fuel charge; and
- (c) the renewable charge.

(2) Each of these charges may differ among customer classes [depending on the nature of demand and the load characteristic of the service provided].

Base non-fuel charge

8 (1) The base non-fuel charge is a charge or set of charges on each customer 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—apart from 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.

Fuel charge

9 (1) The fuel charge is a per kWh charge on each customer that seeks to, in the aggregate, recover the monthly efficient cost of fuel used for generation by a network licensee and generation purchased by the network Licensee from independent power producers.

(2) The fuel charge shall be based on—

(a) in the case of the network licensee—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 2;

(b) in the case of the independent power producers—the difference between the IPP cost accounted for in the non-fuel base rate and the actual IPP cost for the month.

(3) A network licensee shall provide the Commission with Schedules of the monthly fuel calculation no later than three (3) working days after the end of each month.

(4) A network licensee shall publish the monthly fuel charge on its website [and] in a widely read nationally circulated newspaper in a timely manner.

Renewable charge

10 (1) The renewable charge is the amount that each customer in a customer class 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 customers' electricity bills.

Price cap

11 A network licensee shall not charge rates above those allowed under these Regulations.

Division 4: Review and Adjustment of Retail Tariff

Periodic retail tariff reviews

12 (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 conduct the retail tariff review using an Integrated Resource Plan that was approved no more than [18 months] before the commencement of the tariff review.

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

(4) Subject to subsection (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.

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

- (a) the Commission will, at least 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 approved by the Commission;
- (c) there must be at least 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 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.

(6) The Commission may modify or amend the procedures from time to time, except during the 12-month period before the due date for the tariff proposal.

(7) In amending or modifying the process the Commission must comply with subregulation (5).

Annual adjustment of retail tariff

13 (1) Every year other than the year in which a retail tariff review is held, the Commission shall conduct a retail tariff adjustment in accordance with Schedule 3 to reset retail tariffs 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 months after receiving the application for annual adjustment.

Publication

14 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.

Effective date

15 (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

Service standards categories

16 For the purpose of sections 25(1)(j) and 31(1)(d) the Commission shall set service standards for a network licensee in the following categories:

- (a) customer service;
- (b) reliability;
- (c) power quality; and
- (d) efficiency.

Principles for levels of standards

17 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.

Structure of standards

18 (1) Service standards may be set to increase for each year, or some years, of a tariff review 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.

Types of standards

19 (1) The Commission may designate as guaranteed standards, standards in relation to the time taken by a network licensee to:

- (a) respond to customer complaints;
- (b) connect new residential and other simple installations;
- (c) connect new complex installations;
- (d) issue the first bill;
- (e) reconnect a customer after wrongful disconnection; and
- (f) reconnect a reconnection after payment of arrears;

(2) The Commission shall designate standards other than standards designated under subsection (1) as general standards.

Standard setting process

20 The service standards shall be set during each retail tariff review according to the process set out in Schedule 1 Part C.

Network licensee proposed standards

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

- (a) levels for guaranteed service standards;
- (b) compensation levels for violations of guaranteed service standards;
- (c) rating categories for general service standards;
- (d) a plan to measure, and allow for auditing of, compliance with service standards which complies with sub-regulation (2).

(2) The plan required under regulation (d) must contain a voltage sampling plan which includes—

- (a) types, brands, and quantity of voltmeters that the utility will purchase and maintain
- (b) sampling methodology to measure compliance with voltage standards.

Approval of proposed standards

22 The Commission may approve or amend the service standards in the same way as other elements of the tariff proposal, and must do so based on the principles in [the Act and] this Part.

[Publication

23 The Commission 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.

Effective date

24 (1) Subject to sub-regulation 6(2), the Commission, in consultation with the Network Licensee, shall determined the date from which the service standards approved at a periodic rate review become effective.

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

Network licensee reporting obligations

25 A network licensee shall, in accordance with its monitoring plan approved under regulation 21, 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.

Breach of guaranteed standards

26 If a network licensee fails to comply with a guaranteed standard, the Network Licensee is liable to pay compensation to the affected customer according to the tariff of compensation set by Order by the Commission after consultation with the Licensee.

Breach of general standards

27 If the Network Licensee fails to comply with a general standard, the Commission shall, during the next tariff review, make adjustments to the average non-fuel charge to capture this effect.

PART 4 TRANSITIONAL PROCEDURES

Information to be required

28 Despite Part 3 and Schedules 1, 2 and 3, the Commission may, if the information available at the time of the first tariff review after the commencement of Part 3 does not enable compliance with Part 3 and Schedules 1, 2 and 3, request information that differs from that required in Schedules 1 and 2 to the extent reasonable and prudent having regard to the information

available at the time of the review [including the expected cost of LED street lights.]

Adjustments that may be made

29 (1) Despite Part 3 and Schedules 1, 2 and 3, the Commission may, in the first tariff review after the commencement of this Act, apply a different tariff methodology than that required in Schedules 1, 2 and 3 having regard to the methodology used by a network licensee before the commencement of this Act.

- (2) The methodology may include, but is not restricted to—
- (a) in the fuel charge the heat rate and system losses targets predicated on the fuel efficiency mechanism specified in Schedule 2;
 - (b) a renewable energy charge to allow the Network Licensee's renewable purchases to be treated as a pass-through to customers.

SCHEDULE 1

Base Non-fuel Charge

(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 Operating and maintenance expenses for the transmission and distribution network [in the case of a network licensee];
 - 1.4 Operating and maintenance expenses of generation of both power produced by the network licensee and power purchased by the network licensee from an independent power producer;
 - 1.5 Taxes

PART B – Non-Fuel Revenue Requirement calculation

2. **Rate base.** The rate base comprises existing assets at the end of the test year, plus new assets to be added during the tariff period.
 - 2.1 The existing assets are calculated by taking the book value of assets that are used and useful at the end of the test year, less depreciation calculated in accordance with paragraph 3 and accumulated over time.
 - 2.2 New assets to be added during the period are calculated by adding the forecast capital expenditure during the tariff period and subtracting the forecast depreciation and retirements during the tariff period.
 - 2.2.1 The forecast capital expenditure is that proposed by a network licensee in its tariff proposal, to the extent approved by the Commission. The Commission shall approve only proposed capital expenditure, whether or not consistent with the Integrated Resource Plan, that the Commission determines is reasonable and prudent.

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	5	20
Oil Storage Tanks, Pipelines & Equipment	3	33½
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	10	5
Motor Launches	5	20
Bicycles	10	5
Hydro-electric turbines & control gear	4	25
Dams, intake works & water conduits	2	50

4. **Return on Rate Base.** To calculate the reasonable return on the rate base, the Commission shall determine an appropriate WACC.
- 4.1 The WACC is a forward-looking estimate of the cost of finance in the tariff period and:
- 4.1.1 shall be based on the capital structure approved by the Commission;
- 4.1.2 may, use an assumed debt to equity ratio rather than the actual ratio if deemed prudent—the assumed debt to equity ratio must conform to the customary practices of electric utility operation recognizing the specific peculiarities of operating exclusively in Grenada;
- 4.1.3 shall seek to balance the interests of investors and consumers; and
- 4.1.4 shall seek to enable a 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;
- 4.1.5 includes a rate of return on equity that is equal to the rate of the Government of Grenada's most recent long term bond issued by the Regional Government Securities Market
5. **Operating maintenance and administrative expenses.** These are the necessary and prudently incurred expenses that are not directly associated with investment in capital plant.
- 5.1.1 shall be a projection of future expenses for the tariff period for:
- (a) transmission and distribution network operating and maintenance costs;
 - (b) generation operating and maintenance costs;
 - (c) general and administrative costs;

5.2 They are to be calculated based on the network licensee's historic operating expenses in the test year, adjusted for known and measurable future changes.

5.2.1 The test year is the most recent 12 month period for which audited financial accounts are available.

5.2.2 [Known and measurable future changes may take into account a reasonable estimate of expected efficiency gains, based on other comparable utilities' performance and other factors that the Commission determines to be relevant.

5.2.3 The Commission may use benchmarking, econometric models, or both to inform its decision on reasonable expectations of efficiency gains.]

6. **Taxes.** These are income taxes and other direct taxes on the licensee in respect of the authorised business. It does not include Value Added Tax (VAT) or environmental taxes and other taxes that are not a direct tax on the authorised business.

6.1 Losses carried forward and incentives to encourage capital investments are not included in the calculation of income taxes.

7. **Non-Fuel Revenue Requirement.** The non-fuel revenue requirement is calculated by adding the Operating, Maintenance and Administrative (O
(C

PART C – Retail Tariff Review Procedure

8. The network licensee must submit its draft tariff proposal at least 15 days before the end of each tariff review period. The draft proposal must detail all components of the revenue requirement, and, in accordance with regulation 21, a proposal for all service standards. The draft proposal must contain the load research study, cost of service study and least cost expansion study that informs it when such studies are required in accordance with regulation 12(5).

9. The Commission must publish the draft tariff proposal and related documents and seek written submissions from the public, within 10

business days of receipt and allowing 30 business days for the public to respond. The Commission must also hold stakeholder consultation sessions during this period, including at least one consultation to solicit feedback from the public.

10. The Commission must then publish, no later than 55 business days after the end of stakeholder consultations, a draft decision setting out:
 - 10.1 The Commission's preliminary decision on the revenue requirement.
 - 10.2 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.
 - 10.3 The Commission's decisions in substitution of those elements of the draft Proposal it has not accepted, and the reasons for those decisions.
 - 10.4 How the Commission has addressed the issues raised through the consultation process.
11. A network licensee then has 50 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 10 business days, and request the public to make written submissions on the draft decision and revised Proposal within 20 business days.
12. The Commission must publish, no later than 40 business days after the close of public comments on the draft Determination and revised Proposal, a final decision setting out:
 - 12.1 The Commission's final decision on the revenue requirement;
 - 12.2 Instances where the Commission has not accepted elements of the revised tariff proposal and reasons why it has not accepted those elements.
 - 12.3 The Commission's decisions in substitution of those elements of the revised Proposal it has not accepted, and the reasons for those decisions.
 - 12.4 How the Commission has addressed the issues raised through the consultation process.

SCHEDULE 2

Fuel and Renewable Charge Calculation

(Regulations 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 customers 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 over the same twelve-month period. It is zero for the first year that Part 3 comes into force after which it s

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

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

1.4 Fuel of efficiency for month n by the *fuel rate* is cal

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.

H_T = The system heat rate target in kilojoules per kilowatt-hour (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 under contracts and rates approved by the Commission—divided by the kWh consumption by customers during the given month.

SCHEDULE 3

(Regulations 13)

Annual Adjustment of Base Rate

- 1. During an annual adjustment of the retail tariff, the average Non-fuel

Base rate (CAP_n)

Where:

CAP_n average non-fuel price cap for the current year, n.

CAP_{n-1} average non-fuel price cap in the previous year, n-1.

ΔM change in the non-fuel price index

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

Where:

RP_n Reference Price Index in the current year, n.

RP_{n-1} Reference Price Index in the previous year, n -1.

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

Q factor (i.e. the off-set to inflation based on changes in 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 Government shall provide the network licensee with at least 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

shall fail after 90 days to agree to a replacement measure of CPI and RPI, the matter shall be referred to arbitration in accordance with the Act.

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 customers 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.
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 harbors, 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; labor 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 harbors, 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 0.1% of the network licensee’s annual non-fuel 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_T) of all the classes in the basket must be less than or equal to the price cap (CAP_T), as shown in the formula below:

The Weighted Average Consumption Charge, (ACC_T) being:

$$\sum Q_{v,T}$$

Where

$CC_{c,n}$ is the price for customer class ‘c’ in year ‘n’

$Q_{v,n}$ is projected to be sold for customer class ‘c’ in year ‘n’

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

$$CC_{vTGj}$$

$$ACC_{TGj}$$