

**GUJARAT ELECTRICITY REGULATORY COMMISSION
(MULTI-YEAR TARIFF) REGULATIONS, 2016**

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LIST OF ABBREVIATIONS

ARR	Aggregate Revenue Requirement
AS – 3	Accounting Standard – 3
AUX	Auxiliary Consumption
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CFBC	Circulating Fluidised Bed Combustion
COD	Date of Commercial Operation
DPR	Detailed Project Report
DSM	Demand Side Management
ECR	Energy Charge Rate
EE	Energy Efficiency
FPPPA	Fuel Price & Power Purchase Adjustment
FRL	Full Reservoir Level
GCV	Gross Calorific Value
GERC	Gujarat Electricity Regulatory Commission
GETCO	Gujarat Electricity Transmission Corporation Limited
GSECL	Gujarat State Electricity Corporation Limited
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IC	Installed Capacity
kcal	kilo calorie
kWh	kiloWatt hour
MCR	Maximum Continuous Rating
MDDL	Minimum Draw Down Level
MTOA	Medium Term Open Access
MVA	Mega Volt Ampere
MW	Mega Watt
MYT	Multi-Year Tariff
NAPAF	Normal Annual Plant Availability Factor
NAPLF	Normative Annual Plant Load Factor
O&M	Operation & Maintenance
R&M	Repair & Maintenance
RLNG	Re-gasified Liquefied Natural Gas
RoE	Return on Equity
RPO	Renewable Purchase Obligation
SBBR	State Bank Base Rate
SFC	Secondary Fuel Consumption
SLDC	State Load Despatch Centre
TPL-G	Torrent Power Limited – Generation
TPS	Thermal Power Station
TSC	Transmission Service Charges
w.e.f.	With effect from

GUJARAT ELECTRICITY REGULATORY COMMISSION
(MULTI-YEAR TARIFF) REGULATIONS, 2016

Notification No. __ of 2016

Gujarat Electricity Regulatory Commission in exercise of the powers conferred by sub-section (2) of section 181 read with Section 36, Section 39, Section 40, Section 41, Section 51, Section 61, Section 62, Section 63, Section 64, Section 65 and Section 86 of the Electricity Act, 2003 (36 of 2003) and all other powers enabling it in that behalf, and under Section 32 of the Gujarat Electricity Industry (Reorganisation and Regulation) Act, 2003 (Gujarat Act No. 24 of 2003) and all powers enabling it in that behalf, hereby makes the following Regulations, namely:

CHAPTER 1: PRELIMINARY

1 Short title, extent, applicability and commencement

- 1.1 These Regulations may be called the Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2016.
- 1.2 These Regulations shall come into effect from the date of their publication in the Official Gazette and shall remain in force till 31st March, 2021, unless otherwise reviewed/extended.
- 1.3 These Regulations shall extend to the whole of the State of Gujarat.
- 1.4 (a) These Regulations shall be applicable for determination of tariff in all cases covered under these Regulations from April 1, 2016.
- (b) These Regulations shall be applicable to all existing and future Generating Companies, Transmission Licensees, SLDC and Distribution Licensees and their successors, if any;
- (c) These Regulations supersede the “Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2011”.
- (d) These Regulations supersede the “GERC (Levy and Collection of Fees and Charges by SLDC) Regulations, 2005”.

2 Definitions

- (1) “**Accounting Statement**” means for each financial year, the following statements, namely:
- (i) balance sheet, prepared in accordance with the form contained in Part I of Schedule VI to the Companies Act, 1956 as amended from time to time;
- (ii) profit and loss account, complying with the requirements contained in Part II of Schedule VI to the Companies Act, 1956;

- (iii) cash flow statement, prepared in accordance with the Accounting Standard on Cash Flow Statement (AS-3) of the Institute of Chartered Accountants of India;
- (iv) report of the statutory auditors;
- (v) cost records prescribed by the Central Government under Section 209(1)(d) of the Companies Act, 1956;

together with notes thereto, and such other supporting statements and information as the Commission may direct from time to time:

Provided that the revised schedules and forms as stipulated under the Companies Act, 2013 shall be applicable from the date as prescribed therein:

Provided further that in case of any local authority engaged in the business of distribution of electricity, the Accounting Statement shall mean the items, as mentioned above, prepared and maintained in accordance with the relevant Acts or Statutes as applicable to such local authority:

Provided also that once the Commission notifies the Regulations for submission of Regulatory Accounts, the applications for tariff determination and truing up shall be based on the Regulatory Accounts.

- (2) **“Act”** means the Electricity Act, 2003 (36 of 2003), as amended from time to time;
- (3) **“Aggregate Revenue Requirement”** means the annual revenue requirement comprising of allowable expenses and return on capital pertaining to the Generating Company or Transmission Licensee or Distribution Licensee or State Load Despatch Centre, for recovery through tariffs, in accordance with these Regulations;
- (4) **“Allocation Statement”** means for each financial year, a statement in respect of each of the separate businesses of the Generating Company or Transmission Licensee or Distribution Licensee, showing the amounts of any revenue, cost, asset, liability, reserve or provision etc., which has been either:
 - i) charged from or to each such Other Business together with a description of the basis of that charge; or
 - ii) determined by apportionment or allocation between different businesses of the licensee including the Licensed Businesses, together with a description of the basis of the apportionment or allocation:

Provided that for the purpose of these Regulations, the licensed business of the Distribution Licensee for an area of supply would be separated as Distribution Wires and Retail Supply business:

Provided further that such allocation statement in respect of a generating station owned and/or maintained and/or operated by the Distribution Licensee, shall be maintained in a manner so as to enable tariff determination, stage-wise, Unit wise and/or for the whole generating station.

- (5) **“Allotted Transmission Capacity”** means the power transfer in MW between the specified point(s) of injection and point(s) of drawal allowed to a long-term customer or a medium-term customer on the intra-State transmission system under the normal circumstances and the expression "allotment of transmission capacity" shall be construed accordingly:

Provided that the Allotted Transmission Capacity to a long-term transmission customer or a medium-term transmission customer shall be sum of the generating capacities allocated to the long-term transmission customer or the medium-term transmission customer from the generating stations and the contracted power, if any;

- (6) **“Applicant”** means a Generating Company or Transmission Licensee or SLDC or Distribution Licensee who has made an application for determination of Aggregate Revenue Requirement and tariff in accordance with the Act and these Regulations and includes a Generating Company or Transmission Licensee or SLDC or Distribution Licensee whose tariff is the subject of a review by the Commission on suo-motu basis or as part of a Truing-up exercise;
- (7) **“Area of Supply”** means the area within which a Distribution Licensee is authorised by its licence to supply electricity;
- (8) **“Authority”** means Central Electricity Authority referred to in Section 70 of the Act;
- (9) **“Auxiliary Energy Consumption”** in relation to a period in case of a generating station, means the quantum of energy consumed by auxiliary equipment of the generating station, such as the equipment being used for the purpose of operating plant and machinery including switchyard of the generating station and the transformer losses within the generating station, and shall be expressed as a percentage of the sum of gross energy generated at the generator terminals of all the Units of the generating station:

Provided that auxiliary energy consumption shall not include energy consumed for supply of power to housing colony and other facilities at the

generating station and the power consumed for construction works at the generating station;

- (10) (a) **“Availability” in relation to a thermal generating station** for any period means the average of the daily average declared capacities as certified by Gujarat State Load Despatch Centre (SLDC) for all the days during that period expressed as a percentage of the installed capacity of the generating station minus normative auxiliary consumption as specified in these Regulations, and shall be computed in accordance with the following formula:

$$\text{Availability} = 10000 \times \frac{\sum_{i=1}^N \text{DC}_i}{\{ N \times \text{IC} \times (100 - \text{AUX}_n) \}} \%$$

Where,

N = number of days in the given period;

DC = Average Declared Capacity in MW for the i^{th} day in such period;

IC = Installed Capacity of the generating station in MW;

AUX = Normative Auxiliary Consumption, expressed as a percentage of gross generation;

(b) **“Availability” in relation to a transmission system** for a given period means the time in hours during that period the transmission system is capable of transmitting electricity at its rated voltage expressed in percentage of total hours in the given period and shall be calculated as provided in **Annexure II** to these Regulations;

- (11) **“Bank Rate”** shall mean the Bank Rate declared by the Reserve Bank of India from time to time;
- (12) **“Beneficiary”** in relation to a generating station means the person purchasing electricity generated at such generating station whose tariff is determined under these Regulations;
- (13) **“Block”** in relation to a combined cycle thermal generating station includes combustion turbine-generators, associated waste heat recovery boilers, connected steam turbine-generators and auxiliaries;
- (14) **“Bulk Power Transmission Agreement”** means an executed Agreement that contains the terms and conditions under which a Transmission System User is entitled to access an intra-State transmission system of a Transmission Licensee;
- (15) **“change in law”** means occurrence of any of the following events:
- (i) enactment, bringing into effect or promulgation of any new Indian law; or

- (ii) adoption, amendment, modification, repeal or re-enactment of any existing Indian law; or
- (iii) change in interpretation or application of any Indian law by a competent court, Tribunal or Indian Governmental Instrumentality, which is the final authority under law for such interpretation or application; or
- (iv) change by any competent statutory authority in any condition or covenant of any consent or clearances or approval or licence available or obtained for the project; or
- (v) coming into force or change in any bilateral or multilateral agreement/treaty between the Government of India and any other Sovereign Government having implication for the generating station or the transmission system regulated under these Regulations.

(16) **“Commission”** means the Gujarat Electricity Regulatory Commission;

(17) **“Control Period”** means the period of five years from April 1, 2016 to March 31, 2021, for submission of forecast in accordance with **Chapter 2** of these Regulations;

(18) **“Cut-off Date”** means 31st March of the year closing after two years of the year of commercial operation of the project, and in case the project is declared under commercial operation in the last quarter of a year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation:

Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off date for reasons beyond the control of the project developer;

(19) **“Day”** means the 24 hour period starting at 00:00 hour;

(20) **“Date of Commercial Operation” (COD)** means:

- a. in case of a generating unit or block of a thermal generating station, the date declared by the Generating Company after demonstrating the maximum continuous rating (MCR) or the installed capacity (IC) through a successful trial run after notice to the beneficiaries, if any, and in case of the generating station as a whole, the date of commercial operation of the last generating unit or block of the generating station:

Provided that where the beneficiaries have been tied up for purchasing power from the generating station, the trial run shall commence after seven days notice by the Generating Company to the beneficiaries and

scheduling shall commence from 00:00 hr after completion of the trial run:

Provided further that the Generating Company shall certify to the effect that the generating station meets the key provisions of the technical standards of Central Electricity Authority (Technical Standards for Construction of Electrical plants and electric lines) Regulations, 2010 and Gujarat Electricity Regulatory Commission (Gujarat Electricity Grid Code) Regulations, 2013:

- b. in case of a generating unit of hydro generating station including pumped storage hydro generating station shall mean the date declared by the Generating Company from 00:00 hour after the scheduling process as per the Commission's Order is fully implemented, and in relation to the generating station as a whole, the date declared by the Generating Company after demonstrating peaking capability corresponding to installed capacity of the generating station through a successful trial run:

Provided that where beneficiaries have been tied up for purchasing power from generating station, scheduling process for a generating unit of the generating station or demonstration of peaking capability corresponding to installed capacity of the generating station through a successful trial run shall commence after seven days notice by the Generating Company to the beneficiaries and scheduling shall commence from 00:00 hr after completion of trial run:

Provided further that the Generating Company shall certify to the effect that the generating station meets key provisions of the technical standards of Central Electricity Authority (Technical Standards for Construction of Electrical plants and electric lines) Regulations, 2010 and Gujarat Electricity Regulatory Commission (Gujarat Electricity Grid Code) Regulations, 2013:

Provided also that in case a hydro generating station with pondage or storage is not able to demonstrate peaking capability corresponding to the installed capacity for the reasons of insufficient reservoir or pond level, the date of commercial operation of the last unit of the generating station shall be considered as the date of commercial operation of the generating station as a whole, and it will be mandatory for such hydro generating station to demonstrate peaking capability equivalent to installed capacity of the generating unit or the generating station as and when such reservoir/pond level is achieved:

Provided also that if a run-of-river hydro generating station or a generating unit thereof is declared under commercial operation during

lean inflows period when the water inflow is insufficient for such demonstration of peaking capability, it shall be mandatory for such hydro generating station or generating unit to demonstrate peaking capability equivalent to installed capacity as and when sufficient water inflow is available.

- c. in case of a transmission system shall mean the date declared by the Transmission Licensee from 00:00 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end:

Provided that where the transmission line or substation is dedicated for evacuation of power from a particular generating station, the Generating Company and Transmission Licensee shall endeavour to commission the generating station and the transmission system simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement:

Provided further that in case a transmission system or an element thereof is prevented from regular service for reasons not attributable to the Transmission Licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system, the Transmission Licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof.

- (21) **“De-capitalisation”** means reduction in Gross Fixed Assets of the project corresponding to the removal of assets as admitted by the Commission;
- (22) **“Declared Capacity”** means in relation to a generating station, the capability to deliver ex-bus electricity in MW declared by such generating station in relation to any time-block of the day as defined in the Gujarat Electricity Regulatory Commission (Gujarat Electricity Grid Code) Regulations, 2013 or whole of the day, duly taking into account the availability of fuel or water, and subject to further qualification in the relevant Regulation;
- (23) **“Design Energy”** in relation to a hydro power generating station means the quantum of energy, which could be generated in a 90 per cent dependable year with 95 per cent installed capacity of the generating station;
- (24) **“Distribution Business”** means the business of operating and maintaining a distribution system for supplying electricity in the area of supply of the Distribution Licensee;

- (25) **“Distribution Wires Business”** means the business of operating and maintaining a distribution system for wheeling of electricity in the area of supply of the Distribution Licensee;
- (26) **“Expected Revenue from Tariff and Charges”** means the revenue estimated to accrue to the Generating Company or Transmission Licensee or SLDC or Distribution Licensee from the Regulated Business at the prevailing tariffs;
- (27) **“Existing Generating Unit/Station”** means a generating unit/station declared under commercial operation prior to the date of effectiveness of these Regulations;
- (28) **“Existing Project”** means a project declared under commercial operation prior to the date of effectiveness of these Regulations;
- (29) **“Event”** means an unscheduled or unplanned occurrence in the intra-State transmission system including faults, incidents and breakdowns;
- (30) **“Fees”** means fees payable to the SLDC for connection with the State Grid,
- (31) **“Force Majeure Event”** means, with respect to any party, any event or circumstance or combination of events or circumstances including those stated below, which is not within the reasonable control of, and is not due to an act of omission or commission of that party and which, by the exercise of reasonable care and diligence, could not have been avoided, and without limiting the generality of the foregoing, would include the following events:
- a. Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years; or
 - b. Any act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action; or
 - c. Industry wide strikes and labour disturbances having a nationwide impact in India;
- (32) **“Generation Business”** means the business of production of electricity from a generating station for the purpose of (i) giving supply to any premises or enabling a supply to be so given, or (ii) supply of electricity to any Licensee in accordance with the Act and the rules and Regulations made

thereunder or, (iii) supply of electricity to any consumer subject to the Regulations made under sub-section (2) of section 42 of the Act;

- (33) **“Generating Station”** means any station for generating electricity, including any building and plant with step-up transformer, switch-gear, switch yard, cables or other appurtenant equipment, if any, used for that purpose and the site thereof; a site intended to be used for a generating station, and any building used for housing the operating staff of a generating station, and where electricity is generated by water-power, includes penstocks, head and tail works, main and regulating reservoirs, dams and other hydraulic works, but does not in any case include any sub-station;
- (34) **“Generating Unit”** in relation to a thermal generating station (other than combined cycle thermal generating station) means steam generator, turbine-generator and auxiliaries, or in relation to a combined cycle thermal generating station, means turbine-generator and auxiliaries; and in relation to a hydro generating station means turbine-generator and its auxiliaries;
- (35) **“Grid”** means the high voltage backbone system of inter-connected transmission lines, sub-stations and generating plants;
- (36) **“Gross Calorific Value”** in relation to a thermal generating station means the heat produced in kilocalories by complete combustion of one kilogram of solid fuel or one litre of liquid fuel or one standard cubic metre of gaseous fuel, as the case may be;
- (37) **“Gross Station Heat Rate”** means the heat energy input in kcal required to generate one kWh of electrical energy at generator terminals;
- (38) **“High Tension”** or **“HT”** means all voltages defined as “high” or “extra high” voltage under clause (av) of sub-rule (1) of Rule 2 of the Indian Electricity Rules, 1956 and corresponding voltage classifications as may be specified in accordance with clause (c) of sub-section (2) of Section 185 of the Act;
- (39) **“Infirm power”** means electricity injected into the grid prior to the commercial operation of a Unit or Block of the generating station;
- (40) **“Installed Capacity”** means the summation of the name plate capacities of all the units of the generating station or the capacity of the generating station (reckoned at the generator terminals) as approved by the Commission from time to time;
- (41) **“Maximum Continuous Rating”** or **‘MCR’** in relation to a unit of the thermal generating station means the maximum continuous output at the

generator terminals, guaranteed by the manufacturer at rated parameters, and in relation to a Block of a combined cycle thermal generating station means the maximum continuous output at the generator terminals, guaranteed by the manufacturer with water or steam injection (if applicable) and corrected to 50 Hz grid frequency and specified site conditions;

- (42) **“Mid-term Review”** means a review to be undertaken in accordance with the second proviso to Regulation 16.2 (i);
- (43) **“New Generating Unit / Station”** means a generating unit/station declared under commercial operation on or after the date of coming into force of these Regulations;
- (44) **“Normative Annual Plant Availability Factor” or “NAPAF”** in relation to a thermal generating station means the availability factor specified in Regulations 53.1 and 53.2 for thermal generating stations and in relation to a hydro generating station means the availability factor specified in Regulation 56 for hydro generating stations;
- (45) **“Non-Tariff Income”** means income relating to the regulated business other than from tariff, excluding any income from Other Business and, in case of the Retail Supply Business of a Distribution Licensee, excluding income from wheeling and receipts on account of cross-subsidy surcharge and additional surcharge on charges of wheeling;
- (46) **“Operation and Maintenance expenses” or “O&M expenses”:**
- a) In relation to a Generating Company, the expenditure incurred on operation and maintenance of the project of a Generating Company, or part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads, but excludes fuel expenses and water charges;
 - b) In relation to a Transmission Licensee or Distribution Licensee, the expenditure incurred on operation and maintenance of the system by the Transmission Licensee or Distribution Licensee, and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads;
- (47) **“Original Project Cost”** means the capital expenditure incurred by the Generating Company or the Transmission Licensee, as the case may be, within the original scope of the project up to the cut-off date as admitted by the Commission;

(48) **“Other Business”** means any business undertaken by the Generating Company, Transmission Licensee, SLDC or Distribution Licensee, other than the businesses regulated by the Commission;

(49) **“Plant Load Factor”** in relation to thermal generating station or unit for a given period means the total sent out energy corresponding to scheduled generation during the period, expressed as a percentage of sent out energy corresponding to installed capacity in that period and shall be computed in accordance with the following formula:

$$PLF = 10000 \times \frac{\sum_{i=1}^N SG_i}{\{N \times IC \times (100 - AUX_n)\}} \%$$

Where,

IC = Installed Capacity of the generating station or unit in MW,

SG_i = Scheduled Generation in MW for the ith time block of the period,

N = Number of time blocks during the period, and

AUX_n = Normative Auxiliary Energy Consumption as a percentage of gross energy generation;

(50) **“Project”** means a generating station or the transmission system, as the case may be, and in case of a hydro generating station includes all components of generating facility such as penstocks, head and tail works, main and regulating reservoirs, dams and other hydraulic works, intake water conductor system, power generating station and generating units of the scheme, as apportioned to power generation, and in case of a thermal generating station does not include mining if it is a pit head project and dedicated captive coal mine;

(51) **“Prudence Check”** means scrutiny of reasonableness of expenditure incurred or proposed to be incurred, financing plan, use of efficient technology, cost and time over-run and such other factors as may be considered appropriate by the Commission for determination of tariff;

(52) **“Pumped storage hydro generating station”** means a hydro station, which generates power through energy stored in the form of water energy, pumped from a lower elevation reservoir to a higher elevation reservoir;

(53) **“Rated Voltage”** means the manufacturer’s design voltage at which the transmission system is designed to operate or such lower voltage at which the line is charged, for the time being, in consultation with Transmission System Users;

- (54) **“Regulated Business”** means any electricity business, which is regulated by the Commission.
- (55) **“Retail Supply Business”** means the business of sale of electricity by a Distribution Licensee to its consumers in accordance with the terms of its licence;
- (56) **“Run-of-river generating station”** means a hydro generating station, which does not have upstream pondage;
- (57) **“Run-of-river generating station with pondage”** means a hydro generating station with sufficient pondage for meeting the diurnal variation of power demand;
- (58) **“SLDC”** means the State Load Despatch Centre established by the State Government under the Electricity Act for the purpose of exercising the powers and discharging the functions as specified under the Electricity Act.
- (59) **“Small gas turbine generating station”** means and includes open cycle gas turbine or combined cycle generating stations with gas turbines in the capacity range of 50 MW or below;
- (60) **“Scheduled Generation”** at any time or for any period or time block means schedule of generation in MW ex-bus given by the State Load Dispatch Centre;
- (61) **“Storage type power station”** means a hydro power generating station associated with large storage capacity to enable variation in generation of electricity according to demand;
- (62) **“Transmission System”** means a line or a group of lines with or without associated sub-station, and includes equipment associated with transmission lines and sub-stations;
- (63) **“Transmission System User”** means a person who has been allotted transmission capacity rights to access an intra-State transmission system pursuant to a Bulk Power Transmission Agreement, except as provided in the Gujarat Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2011, as applicable and as amended from time to time;
- (64) **“Useful life”** in relation to a unit of a generating station, transmission system and distribution system from the date of commercial operation shall mean the following, namely:

- i. Coal/Lignite based thermal generating: 25 years;

- | | | |
|------|---|-----------|
| ii. | Gas/Liquid fuel based thermal generating station: | 25 years; |
| iii. | Hydro generating station including pumped storage hydro generating station: | 35 years; |
| iv. | AC and DC sub-station: | 35 years; |
| v. | Gas Insulated Sub-station (GIS): | 35 years; |
| vi. | Transmission line (including HVAC and HVDC): | 35 years; |
| vii. | Distribution line: | 35 years; |

(65) “**Year**” means a financial year (FY);

The words and expressions used in these Regulations and not defined herein but defined in the Act or any other Regulations of the Commission shall have the meaning assigned to them under the Act or any other Regulations of the Commission.

3 Scope of Regulation and extent of application

3.1 The Commission shall determine tariff within the Multi-Year Tariff framework, for all matters for which the Commission has jurisdiction under the Act, including in the following cases:

(i) Supply of electricity by a Generating Company to a Distribution Licensee:

Provided that where the Commission believes that a shortage of supply of electricity exists, it may fix the minimum and maximum ceiling of tariff for sale or purchase of electricity in pursuance of an agreement, entered into between a Generating Company and a Distribution Licensee or between distribution licensees, for a period not exceeding one year to ensure reasonable prices of electricity;

(ii) Intra-State transmission of electricity;

(iii) SLDC Fees and Charges;

(iv) Intra-State Wheeling of electricity;

(v) Retail supply of electricity:

Provided that in case of distribution of electricity in the same area by two or more Distribution Licensees, the Commission may, for promoting competition among Distribution Licensees, fix only maximum ceiling of tariff for retail sale of electricity:

Provided further that where the Commission has allowed open access to certain consumers under sub-section (2) of Section 42 of the Act, such consumers, notwithstanding the provisions of clause (d) of sub-section (1) of Section 62 of the Act, may enter into an agreement with any person for

supply or purchase of electricity on such terms and conditions (including tariff) as may be agreed upon by them:

Provided also that the Commission, while determining tariff upon an application made to it under these Regulations, shall also have regard to the terms and conditions of tariff as may be specified by the State Commission of such other State and/or the terms and conditions of tariff as may be specified by the Central Commission where any of the Parties to such transaction come under the jurisdiction of such State Commission or of the Central Commission.

- 3.2 The Commission may also determine the rate at which the Distribution Licensee can supply power to other Distribution Licensees in the State.
- 3.3 In accordance with the principles laid out in these Regulations, the Commission shall determine separate Aggregate Revenue Requirement for:
 - (a) Distribution Wires Business; and
 - (b) Retail Supply Business.
- 3.4 The Distribution Licensee shall file Petition containing separate details for determination of Aggregate Revenue Requirement for Distribution Wires Business and Retail Supply Business, based on the allocation matrix specified in these Regulations:

Provided that once the Commission notifies the Regulations for submission of Regulatory Accounts, the Petition containing separate details for determination of Aggregate Revenue Requirement for Distribution Wires Business and Retail Supply Business shall be based on the Regulatory Accounts.
- 3.5 The Wheeling Tariff/Charges shall be based on the Aggregate Revenue Requirement determined for the Distribution Wires Business.
- 3.6 The Retail Supply Tariff for retail sale of electricity shall be based on the Aggregate Revenue Requirement determined for the Distribution Wires Business and Retail Supply Business.
- 3.7 The Commission shall also determine Surcharge in addition to the charges for wheeling under the first proviso to sub-section (2) of Section 42 of the Act, in accordance with the Gujarat Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2011 and as amended through Orders issued by the Commission from time to time.
- 3.8 The Commission shall also determine additional surcharge on the charges for wheeling under sub-section (4) of Section 42 of the Act, in accordance with the Gujarat Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2011 and as amended through Orders issued by the Commission from time to time.
- 3.9 Notwithstanding anything contained in these Regulations, the Commission shall adopt the tariff if such tariff has been determined through a transparent process

of bidding in accordance with the guidelines issued by the Central Government pursuant to Section 63 of the Act.

4 Norms of operation to be ceiling norms

For removal of doubts, it is clarified that the norms of operation specified under these Regulations are the ceiling norms and this shall not preclude the Generating Company or the Transmission Licensee or the SLDC or the Distribution Licensee, as the case may be, and the beneficiaries from accepting improved norms of operation as determined by the Commission and such improved norms shall be applicable for determination of tariff.

5 Deviation from norms

Tariff for sale of electricity by a Generating Company may also be determined in deviation of the norms specified in these Regulations subject to the conditions that:

- (i) The overall per unit tariff of electricity over the entire life of the asset, calculated on the basis of the norms in deviation does not exceed the per unit tariff calculated on the basis of the norms specified in these Regulations; and
- (ii) Any such deviation shall come into effect only after approval by the Commission.

6 General Framework

These Regulations are in the nature of general framework on which the tariff determination exercise will be based. However, the Commission reserves the right to vary as and when the facts and circumstances so warrant, from the procedures and parameters specified in these Regulations.

7 Saving of Inherent Power of the Commission

- 7.1 Nothing in these Regulations shall be deemed to limit or otherwise affect the inherent power of the Commission to make such orders as may be necessary for ends of justice or to prevent the abuse of the process of the Commission.
- 7.2 Nothing in these Regulations shall bar the Commission from adopting in conformity with the provisions of the Act, a procedure, which is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient for dealing with such a matter or class of matters.

- 7.3 Nothing in these Regulations shall, expressly or by implication, bar the Commission to deal with any matter or exercise any power under the Acts for which no Regulations have been framed, and the Commission may deal with such matters, powers and functions in a manner it thinks fit.

8 Effect of Non-Compliance

Failure to comply with any requirement of these Regulations shall not invalidate any Proceeding merely by reason of such failure unless the Commission is of the view that such failure has resulted in miscarriage of justice.

9 General

The Commission shall be guided by the following

- (i) The principles and methodologies specified by the Central Commission for determination of the tariff applicable to Generating Companies and Transmission Licensees as may be in force from time to time;
- (ii) The National Electricity Policy and Tariff Policy as may be in force from time to time; and
- (iii) Principles as mentioned in Section 61 of the Electricity Act, 2003.

10 Issue of Orders and Practice Directions

- 10.1 Subject to the provision of the Act and these Regulations, the Commission may, from time to time, issue Orders and Practice directions with regard to the implementation of these Regulations and procedure to be followed on various matters, which the Commission has been empowered by these Regulations to direct, and matters incidental or ancillary thereto.
- 10.2 Notwithstanding anything contained in these Regulations, the Commission shall have the authority, either suo-motu or on a petition filed by any interested or affected party, to determine the tariff of any Applicant.

11 Power to remove difficulties

If any difficulty arises in giving effect to any of the provisions of these Regulations, the Commission may, by a general or special order, not being inconsistent with the provisions of these Regulations or the Act, do or undertake to do things or direct the Generating Company or Transmission Licensee or SLDC or Distribution Licensee to do or undertake such things which appear to be necessary or expedient for the purpose of removing the difficulties.

12 Power of Relaxation

The Commission, for reasons to be recorded in writing, may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.

13 Interpretation

If a question arises relating to the interpretation of any provision of these Regulations, the decision of the Commission shall be final.

14 Inquiry and Investigation

All inquiries, investigations and adjudications under these Regulations shall be done by the Commission through the proceedings in accordance with the provisions of the Gujarat Electricity Regulatory Commission (Conduct of Business) Regulations, 2004, as amended from time to time.

15 Power to Amend

The Commission, for reasons to be recorded in writing, may at any time vary, alter or modify any of the provision of these Regulations by amendment.

CHAPTER 2: GENERAL PRINCIPLES

16 Multi-Year Tariff framework

- 16.1 The Commission shall determine the tariff for matters covered under clauses (i), (ii), (iii), (iv) and (v) of Regulation 3.1 above, under a Multi-Year Tariff framework with effect from April 1, 2016:

Provided that the Commission may, either on *suo-motu* basis or upon application made to it by an Applicant, exempt the determination of tariff of a Generating Company or Transmission Licensee or SLDC or Distribution Licensee under the Multi-Year Tariff framework for such period as may be contained in the Order granting such an exemption.

- 16.2 The Multi-Year Tariff framework shall be based on the following elements, for determination of Aggregate Revenue Requirement and expected revenue from tariff and charges for Generating Company, Transmission Licensee, SLDC, Distribution Wires Business and Retail Supply Business:

- (i) A detailed Multi-Year Tariff Application comprising the forecast of Aggregate Revenue Requirement for the entire Control Period and expected revenue from existing tariffs for the first year of the Control Period to be submitted by the Applicant:

Provided that the performance parameters, whose trajectories have been specified in the Regulations, shall form the basis for projection of these performance parameters in the Aggregate Revenue Requirement for the entire Control Period:

Provided further that a Mid-term Review of the Aggregate Revenue Requirement shall be undertaken for the Generating Company, Transmission Licensee, SLDC and Distribution Licensee on an application that shall be filed by the utilities along with the Petition for truing-up for the second year of the Control Period and tariff determination for the fourth year of the Control Period;

- (ii) Determination of Aggregate Revenue Requirement by the Commission for the entire Control Period and the tariff for the first year of the Control Period for the Generating Company, Transmission Licensee, SLDC, Distribution Wires Business and Retail Supply Business;
- (iii) Truing up of previous year's expenses and revenue by the Commission based on Audited Accounts vis-à-vis the approved forecast and categorisation of variation in performance as those caused by factors within the control of the Applicant (controllable factors) and those caused by factors beyond the control of the Applicant (uncontrollable factors):

Provided that once the Commission notifies the Regulations for submission of Regulatory Accounts, the applications for tariff determination and truing up shall be based on the Regulatory Accounts;

- (iv) The mechanism for pass-through of approved gains or losses on account of uncontrollable factors as specified by the Commission in these Regulations;
- (v) The mechanism for sharing of approved gains or losses on account of controllable factors as specified by the Commission in these Regulations;
- (vi) Annual determination of tariff for the Generating Company, Transmission Licensee, SLDC, Distribution Wires Business and Retail Supply Business, for each financial year within the Control Period, based on the approved forecast and results of the truing up exercise.

17 Accounting statement and filing under MYT

17.1 The filing under MYT by the Generating Company, Transmission Licensee, SLDC and Distribution Licensee, shall be done as per the timelines specified in these Regulations and in compliance with the principles for determination of Aggregate Revenue Requirement as specified in these Regulations, in such form as may be prescribed by the Commission from time to time.

17.2 The filing for the Control Period under these Regulations shall be as under:

- a) MYT Petition shall comprise of:
 - i. Truing up for FY 2015-16 to be carried out under Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2011;
 - ii. Multi-Year Aggregate Revenue Requirement for the entire Control Period with year-wise details;
 - iii. Revenue from the sale of power at existing tariffs and charges and projected revenue gap, for the second year of the Control Period under these Regulations, viz., FY 2017-18;
 - iv. Application for determination of final ARR for FY 2016-17 and determination of tariff for FY 2017-18.
- b) From the second year of the Control Period and onwards, the Petition shall comprise of:
 - i. Truing Up for FY 2016-17 and onwards to be carried out under Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2016;
 - ii. Revenue from the sale of power at existing tariffs and charges for the ensuing year;

- iii. Revenue gap for the ensuing year calculated based on Aggregate Revenue Requirement approved in the MYT Order and truing up for the previous year;
 - iv. Application for determination of tariff for the ensuing year.
- c) In case of Mid-term Review of Aggregate Revenue Requirement under Regulation 16.2 (i), the Petition shall comprise of:
- i. Truing Up for the previous year under these Regulations;
 - ii. Modification of the Aggregate Revenue Requirement for the remaining years of the Control Period, if any, with adequate justification for the same;
 - iii. Revenue from the sale of power at existing tariffs and charges for the ensuing year;
 - iv. Revenue gap for the ensuing year calculated based on Aggregate Revenue Requirement approved in the MYT Order and truing up for the previous year;
 - v. Application for determination of tariff for the ensuing year.

17.3 The Generating Company, Transmission Licensee, SLDC and Distribution Licensee for the Distribution Wires Business and Retail Supply Business, shall file separate audited accounting statements with the application for determination of tariff and truing up under Regulation 21:

Provided that in case complete accounting segregation has not been done between the Wires Business and Supply Business, the Aggregate Revenue Requirement of the Distribution Licensee shall be apportioned between Wires Business and Retail Supply Business in accordance with the Allocation Matrix specified in **Chapter 7** of these Regulations.

18 Applicability

The Multi-Year Tariff framework shall apply to applications made for determination of tariff for a Generating Company, Transmission Licensee, SLDC and Distribution Licensee for Distribution Wires Business and Retail Supply Business.

19 Multi-Year Tariff Application

19.1 The Applicant shall submit the forecast of Aggregate Revenue Requirement for the entire Control Period and tariff proposal for the second year of the Control Period, in such manner, and within such time limit as provided in these Regulations and accompanied by such fee payable, as may be specified under

the Gujarat Electricity Regulatory Commission (Fees, Fines and Charges) Regulations, 2005, as amended from time to time.

- 19.2 The Applicant shall develop the forecast of Aggregate Revenue Requirement using the assumptions relating to the behaviour of individual variables that comprise the Aggregate Revenue Requirement during the Control Period, including inter-alia detailed category-wise sales and demand projections, power procurement plan, capital investment plan, financing plan and physical targets, in accordance with guidelines and formats, as may be prescribed by the Commission from time to time.
- 19.3 The capital investment plan shall show separately, on-going projects that will spill over into the Control Period, and new projects (along with justification) that will commence in the Control Period but may be completed within or beyond the Control Period. The Commission shall consider and approve the capital investment plan for which the Generating Company, Transmission Licensee, SLDC and Distribution Licensee for the Distribution Wires Business and Retail Supply Business, may be required to provide relevant technical and commercial details.
- 19.4 The Distribution Licensee shall project the power purchase requirement based on the Merit Order Despatch principles of all Generating Stations considered for power purchase, the Quantum of Renewable Purchase Obligation (RPO) under Regulation 4 of Gujarat Electricity Regulatory Commission (Procurement of Energy from Renewable Sources) (First Amendment) Regulations, 2014 and the target set, if any, for Energy Efficiency (EE) and Demand Side Management (DSM) schemes.
- 19.5 The Applicant shall develop the forecast of expected revenue from tariff and charges based on the following:
- (a) In the case of a Generating Company, estimates of quantum of electricity to be generated by each Unit/Station for ensuing financial year within the Control Period;
 - (b) In the case of a Transmission Licensee, estimates of transmission capacity allocated to Transmission System Users for ensuing financial year within the Control Period;
 - (c) In the case of SLDC, estimates of services to be extended to the beneficiaries.
 - (d) In the case of a Distribution Licensee, estimates of quantum of electricity to be supplied to consumers and to be wheeled on behalf of Distribution System Users for ensuing financial year within the Control Period;
 - (e) Prevailing tariffs as on the date of making the application.
- 19.6 Based on the forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges, the Generating Company, Transmission Licensee, SLDC and Distribution Licensee for the Distribution Wires Business

and Retail Supply Business, shall propose the tariff that would meet the gap, if any, in the Aggregate Revenue Requirement.

19.7 The Applicant shall provide full details supporting the forecast, including but not limited to details of past performance, proposed initiatives for achieving efficiency or productivity gains, technical studies, contractual arrangements and/or secondary research, to enable the Commission to assess the reasonableness of the forecast.

19.8 On receipt of application, the Commission shall either:

- (a) issue an Order approving the Aggregate Revenue Requirement for the entire Control Period and the tariff for the second year of the Control Period, subject to such modifications and conditions as it may specify in the said Order; or
- (b) reject the application for reasons to be recorded in writing, as the Commission may deem appropriate:

Provided that the Applicant shall be given a reasonable opportunity of being heard before rejecting his application.

20 Specific trajectory for certain variables

While approving the MYT Petition, the Commission shall stipulate a trajectory for the variables, which shall include, but not be limited to Operation & Maintenance expenses, target plant load factor and distribution losses for FY 2017-18 onwards:

Provided that the utilities shall adhere to the norms as specified in these Regulations for FY 2016-17:

Provided further that the Generating Company, Transmission Licensee, SLDC, Distribution Wires Business and Retail Supply Business may seek a review of the trajectory at the time of mid-term review of Aggregate Revenue Requirement for the balance Control Period.

21 Truing Up

21.1 The Generating Company or Transmission Licensee or SLDC or Distribution Licensee shall be subject to truing up of expenses and revenue during the Control Period in accordance with these Regulations.

21.2 The Generating Company or Transmission Licensee or SLDC or Distribution Licensee shall file an Application for Truing up of the previous year and determination of tariff for the ensuing year, within the time limit specified in these Regulations:

Provided that the Generating Company or Transmission Licensee or SLDC or Distribution Licensee, as the case may be, shall submit to the Commission

information in such form as may be prescribed by the Commission, together with the Audited Accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges:

Provided further that once the Commission notifies the Regulations for submission of Regulatory Accounts, the applications for tariff determination and truing up shall be based on the Regulatory Accounts.

21.3 The scope of the truing up shall be a comparison of the performance of the Generating Company or Transmission Licensee or SLDC or Distribution Licensee with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise of the following:

- (a) a comparison of the audited performance of the Applicant for the previous financial year with the approved forecast for such previous financial year, subject to the prudence check;
- (b) Review of compliance with directives issued by the Commission from time to time;
- (c) Other relevant details, if any.

21.4 In respect of the expenses incurred by the Generating Company, Transmission Licensee, SLDC and Distribution Licensee during the year for controllable and uncontrollable parameters, the Commission shall carry out a detailed review of performance of an Applicant vis-a-vis the approved forecast as part of the truing up.

21.5 Upon completion of the truing up under Regulation 21.4 above, the Commission shall attribute any variations or expected variations in performance for variables specified under Regulation 22 below, to factors within the control of the Applicant (controllable factors) or to factors beyond the control of the Applicant (uncontrollable factors):

Provided that any variations or expected variations in performance, for variables other than those specified under Regulation 22.1 below shall be attributed entirely to controllable factors.

21.6 Upon completion of the Truing Up, the Commission shall pass an order recording:

- (a) the approved aggregate gain or loss to the Generating Company or Transmission Licensee or SLDC or Distribution Licensee on account of controllable factors, and the amount of such gains or such losses that may be shared in accordance with Regulation 24 of these Regulations;
- (b) Components of approved cost pertaining to the uncontrollable factors, which were not recovered during the previous year, to be passed through as per Regulation 23 of these Regulations;

- (c) Carrying cost to be allowed on the amount of Revenue Gap or Revenue Surplus for the period from the date on which such gap/surplus is recognised till the beginning of the year in which it is addressed, calculated on simple interest basis at the weighted average State Bank Base Rate for the relevant year;
- (d) Tariff determined for the ensuing year.

22 Controllable and uncontrollable factors

22.1 For the purpose of these Regulations, the term “uncontrollable factors” shall comprise of the following factors, which were beyond the control of the Applicant, and could not be mitigated by the Applicant:

- (a) Force Majeure events;
- (b) Change in law, judicial pronouncements and Orders of the Central Government, State Government or Commission;
- (c) Variation in the price of fuel and/ or price of power purchase according to the FPPPA formula approved by the Commission from time to time;
- (d) Variation in the number or mix of consumers or quantities of electricity supplied to consumers:

Provided that where there is more than one Distribution Licensee within the area of supply of the Applicant, any variation in the number or mix of consumers or in the quantities of electricity supplied to consumers within the area served by two or more such Distribution Licensees, on account of migration from one Distribution Licensee to another, shall be attributable to controllable factors:

Provided further that if any consumer or category of consumers within the area of supply of the Applicant is eligible for open access under sub-section (3) of Section 42 of the Act, then any variation in the number or mix of such consumers or quantities of electricity supplied to such eligible consumers shall be attributable to controllable factors;

- (e) Transmission Loss;
- (f) Variation in market interest rates;
- (g) Taxes and Statutory levies;
- (h) Taxes on Income;
- (i) Income from realisation of bad debts written off:

Provided that where the Applicant believes, for any variable not specified above, that there is a material variation or expected variation in performance for any financial year on account of uncontrollable factors, such Applicant may

apply to the Commission for inclusion of such variable at the Commission's discretion, under this Regulation for such financial year.

22.2 Some illustrative variations or expected variations in the performance of the Applicant, which may be attributed by the Commission to controllable factors include, but are not limited to, the following:

- (a) Variations in capitalisation on account of time and/or cost overruns/ efficiencies in the implementation of a capital expenditure project not attributable to an approved change in scope of such project, change in statutory levies or force majeure events;
- (b) Variation in Interest and Finance Charges, Return on Equity, and Depreciation on account of variation in capitalisation, as specified in clause (a) above;
- (c) Variations in technical and commercial losses of Distribution Licensee;
- (d) Variations in performance parameters;
- (e) Variations in interest on working capital;
- (f) Failure to meet the standards specified in the Gujarat Electricity Regulatory Commission (Standard of Performance of Distribution Licensee) Regulations, 2005, except where exempted in accordance with those Regulations;
- (g) Variations in labour productivity;
- (h) Variation in Operation & Maintenance expenses;
- (i) Bad debts written off.

23 Mechanism for pass through of gains or losses on account of uncontrollable factors

23.1 The approved aggregate gain or loss to the Generating Company or Transmission Licensee or SLDC or Distribution Licensee on account of uncontrollable factors shall be passed through as an adjustment in the tariff of the Generating Company or Transmission Licensee or SLDC or Distribution Licensee over such period as may be specified in the Order of the Commission passed under these Regulations.

23.2 The Generating Company or Transmission Licensee or SLDC or Distribution Licensee shall submit such details of the variation between expenses incurred and revenue earned and the figures approved by the Commission, in the prescribed format to the Commission, along with the detailed computations and supporting documents as may be required for verification by the Commission.

- 23.3 Nothing contained in this Regulation 23 shall apply in respect of any gain or loss arising out of variations in the price of fuel and power purchase, which shall be dealt with as specified by the Commission from time to time.

24 Mechanism for sharing of gains or losses on account of controllable factors

- 24.1 The approved aggregate gain to the Generating Company or Transmission Licensee or SLDC or Distribution Licensee on account of controllable factors shall be dealt with in the following manner:
- (a) One-third of the amount of such gain shall be passed on as a rebate in tariffs over such period as may be stipulated in the Order of the Commission under Regulation 21.6;
 - (b) The balance amount, which will amount to two-thirds of such gain, may be utilised at the discretion of the Generating Company or Transmission Licensee or SLDC or Distribution Licensee.
- 24.2 The approved aggregate loss to the Generating Company or Transmission Licensee or SLDC or Distribution Licensee on account of controllable factors shall be dealt with in the following manner:
- (a) One-third of the amount of such loss may be passed on as an additional charge in tariffs over such period as may be stipulated in the Order of the Commission under Regulation 21.6; and
 - (b) The balance amount of loss, which will amount to two-thirds of such loss, shall be absorbed by the Generating Company or Transmission Licensee or SLDC or Distribution Licensee.

25 Determination of Tariff

- 25.1 The proceedings to be held by the Commission for determination of tariff shall be in accordance with the GERC (Conduct of Business) Regulations, 2004, as amended from time to time.
- 25.2 Notwithstanding anything contained in these Regulations, the Commission shall at all times have the authority, either on *suo motu* basis or on a Petition filed by the Generating Company or Transmission Licensee or SLDC or Distribution Licensee, to determine the tariff, including terms and conditions thereof, of any Generating Company or Transmission Licensee or SLDC or Distribution Licensee:

Provided that such determination of tariff may be pursuant to an agreement or arrangement or otherwise whether or not previously approved by the

Commission and entered into at any time before or after the applicability of these Regulations.

- 25.3 Notwithstanding anything contained in these Regulations, the Commission shall adopt the tariff, if such tariff has been determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government:

Provided that the Applicant shall provide such information as the Commission may require for satisfying itself that the guidelines issued by the Central Government have been duly followed.

26 Determination of Generation Tariff

26.1 Existing generating station:

- 26.1.1 Where the Commission has, at any time prior to the date of effectiveness of these Regulations, approved a power purchase agreement or arrangement between a Generating Company and a Distribution Licensee or has adopted the tariff contained therein for supply of electricity from an existing generating Unit/Station, the tariff for supply of electricity by the Generating Company to the Distribution Licensee shall be in accordance with tariff mentioned in such power purchase agreement or arrangement for such period as may be so approved or adopted by the Commission.

- 26.1.2 Where, as on the date of effectiveness of these Regulations, the power purchase agreement or arrangement between a Generating Company and a Distribution Licensee for supply of electricity from an existing generating station has not been approved by the Commission or the tariff contained therein has not been adopted by the Commission or where there is no power purchase agreement or arrangement, the supply of electricity by such Generating Company to such Distribution Licensee after the date of effectiveness of these Regulations shall be in accordance with a power purchase agreement approved by the Commission:

Provided that an application for approval of such power purchase agreement or arrangement shall be made by the Distribution Licensee to the Commission within a period of three (3) months from the date of notification of these Regulations:

Provided further that the supply of electricity shall be allowed to continue under the present agreement or arrangement, as the case may be, until such time as the Commission approves of such power purchase agreement and shall be discontinued forthwith if the Commission rejects, for reasons recorded in writing, such power purchase agreement or arrangement.

26.2 New generating stations:

- 26.2.1 The tariff for the supply of electricity by a Generating Company to a Distribution Licensee from a new generating Unit/Station shall be in

accordance with tariff as per power purchase agreement approved by the Commission.

26.3 Own generating stations:

26.3.1 Where the Distribution Licensee also undertakes the business of generation of electricity, the transfer price at which electricity is supplied by the Generation Business of the Distribution Licensee to his Retail Supply Business shall be determined by the Commission.

26.3.2 The Distribution Licensee shall maintain separate records for the Generation Business and shall maintain an Allocation Statement so as to enable the Commission to clearly identify the direct and indirect costs relating to such business and return on equity accruing to such business:

Provided that once the Commission notifies the Regulations for submission of Regulatory Accounts, the applications for tariff determination and truing up shall be based on the Regulatory Accounts.

26.4 The Distribution Licensee shall submit, along with the separate application for determination of tariff for retail supply of electricity, the information required under **Chapter 4** of these Regulations relating to the Generation Business.

27 Determination of Tariff for Transmission, Distribution Wires Business, Retail Supply Business, and SLDC Fees and Charges

27.1 The Commission shall determine the tariff for Transmission Business, Distribution Wires Business, Retail Supply Business and the SLDC fees and charges based on an application made by the Licensees and SLDC in accordance with the procedure contained in these Regulations.

27.2 The Commission shall determine the tariff for:

- (a) Transmission of electricity, in accordance with the terms and conditions contained in **Chapter 5** of these Regulations;
- (b) SLDC Fees & Charges, in accordance with the terms and conditions contained in **Chapter 6** of these Regulations.
- (c) Distribution Wires Business, in accordance with the terms and conditions contained in **Chapter 7** of these Regulations; and
- (d) Retail Supply Business, in accordance with the terms and conditions contained in **Chapter 8** of these Regulations.

28 Filing Procedure

28.1 The Applicant shall provide, as part of his application to the Commission, in such form as may be prescribed by the Commission from time to time, full details of his calculation of the Aggregate Revenue Requirement and expected

revenue from tariff and charges, and thereafter, he shall furnish such further information or particulars or documents as the Commission or the Secretary or any Officer designated for the purpose by the Commission may reasonably require to assess such calculation:

Provided that the application shall be accompanied where relevant, by a detailed tariff and charges revision proposal showing category-wise tariff and how such revision would meet the gap, if any, in Aggregate Revenue Requirement for the respective year of the Control Period:

Provided further that the Commission may specify additional/alternative formats for details to be submitted by the Applicant, from time to time, as it may reasonably require for assessing the Aggregate Revenue Requirement and for determining the tariff.

- 28.2 Upon receipt of a complete application accompanied by all requisite information, particulars and documents in compliance with all the requirements specified in these Regulations, the application shall be deemed to be received and the Commission or the Secretary or the designated Officer shall intimate to the Applicant that the application is registered and ready for publication.
- 28.3 The application made shall be supported by affidavit of the person acquainted with the facts stated in the application.
- 28.4 The Applicant shall, within 7 days after registration of the application, publish a notice of his application in at least two daily newspapers, one in English language and one in vernacular language, having wide circulation in the relevant area.
- 28.5 The suggestions and objections, if any, on the proposal for determination of tariff, may be filed before the Secretary, Gujarat Electricity Regulatory Commission, by any person within 30 days of publication of this notice, with a copy to the Applicant.
- 28.6 The Applicant shall within 7 days from the date of publication of the notice as aforesaid submit to the Commission on affidavit the details of the notice published and shall also file copies of the newspapers wherein the notice has been published.
- 28.7 The Applicant shall file his comments on the suggestions and objections, if any, received in response to his application within the time limit specified in Gujarat Electricity Regulatory Commission (Conduct of Business) Regulations, 2004, as amended from time to time.
- 28.8 The Applicant shall file his application for approval of truing up of previous year and tariff for ensuing financial year by 30th November of the current financial year.

29 Tariff Order

- 29.1 The Commission shall, within one hundred and twenty (120) days from the date of registration of a complete application and after considering all suggestions and objections received from the public:
- (a) issue a Tariff Order accepting the application with such modifications or such conditions as may be specified in that Order; or
 - (b) reject the application for reasons to be recorded in writing if such application is not in accordance with the provisions of the Act and the rules and Regulations made thereunder or the provisions of any other law for the time being in force:
Provided that an Applicant shall be given a reasonable opportunity of being heard before rejecting his application.
- 29.2 The tariffs so published shall be in force from the date specified in the said Order and shall, unless amended or revoked, continue to be in force for such period as may be stipulated therein.

30 Adherence to Tariff Order

- 30.1 No tariff or part of any tariff may be ordinarily amended, more frequently than once in any Financial year, except FPPPA based on FPPPA formula approved by the Commission from time to time.
- 30.2 The Commission, may, after satisfying itself for reasons to be recorded in writing, allow revision of tariff.
- 30.3 If any Generating Company or Transmission Licensee or SLDC or Distribution Licensee recovers a price or charge exceeding the tariff determined under Section 62 of the Act and in accordance with these Regulations, the excess amount shall be payable to the person who has paid such price or charge, along with interest equivalent to the Bank Rate of the Reserve Bank of India without prejudice to any other liability incurred by such Generating Company or Transmission Licensee or SLDC or Distribution Licensee.
- 30.4 The Licensees shall submit periodic returns as may be required by the Commission, containing operational and cost data to enable the Commission to monitor the implementation of its Order.

31 Annual determination of tariff

The Commission shall determine the tariff of a Generating Company, Transmission Licensee, SLDC and Distribution Licensee covered under a Multi-Year Tariff framework for each financial year during the Control Period, at the commencement of such financial year, having regard to the following:

- (a) The approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges of the Generating Company, Transmission Licensee, SLDC and Distribution Licensee for such financial year,

including modifications approved at the time of mid-term review, if any;
and

- (b) Approved gains and losses, including the incentive available, to be passed through in tariffs, following the Truing Up of previous year.

32 Subsidy Mechanism

With effect from the first day of April 2016, if the State Government requires to grant any subsidy to any consumer or class of consumers in the tariff determined by the Commission, the State Government shall, notwithstanding any direction which may be given under Section 108 of the Act, pay in advance the amount to compensate the Distribution Licensee/person affected by the grant of subsidy, as a condition for the Licensee or any other person concerned to implement the subsidy provided for by the State Government, in the manner specified in these Regulations:

Provided that no such direction of the State Government shall be operative if the payment is not made in accordance with the provisions contained in these Regulations, and the tariff fixed by the Commission shall be applicable from the date of issue of orders by the Commission in this regard.

CHAPTER 3: FINANCIAL PRINCIPLES

33 Debt-equity ratio

For the purpose of determination of tariff, debt-equity ratio as on the date of commercial operation in case of a new generating station, transmission or distribution line or substation commissioned or capacity expanded on or after 1.4.2016 shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 34, after prudence check:

Provided that where actual equity employed is more than 30% of capital cost approved by the Commission, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as loan:

Provided further that where actual equity employed is less than 30% of capital cost approved by the Commission, the actual equity shall be considered, and the balance amount in excess of 70% normative loan shall also be considered as loan:

Provided also that in case of the Generating Company, Transmission Licensee, SLDC and Distribution Licensee, if any fixed asset is capitalised on account of capital expenditure incurred prior to April 1, 2016, debt-equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2016 shall be considered:

Provided also that in case of de-capitalisation or retirement or replacement of assets, the equity capital approved as mentioned above, shall be reduced to the extent of 30% (or actual equity component based on documentary evidence, if it is lower than 30%) of the original cost of the de-capitalised or retired or replaced asset, and the debt capital approved as mentioned above, shall be reduced to the extent of actual debt component, based on documentary evidence, of the original cost of the de-capitalised or retired or replaced asset:

Provided also that for the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee formed as a result of a Transfer Scheme, the date of the Transfer Scheme shall be the effective date for the determination of equity capital.

34 Capital Cost

34.1 Capital Cost for a project shall include:

- (a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange rate variation on the loan during construction up to the date of commercial operation of the project, as admitted by the Commission after prudence check;
- (b) capitalised initial spares subject to the ceiling rates specified in these Regulations; and

(c) additional capitalisation determined under Regulation 35:

Provided that the assets forming part of the project but not put to use or not in use, shall be taken out of the capital cost.

34.2 The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff.

34.3 The approved Capital Cost shall be considered for determination of tariff and if sufficient justification is provided for any escalation in the Capital Cost, the same may be considered by the Commission subject to prudence check:

Provided that in case the actual capital cost is lower than the approved capital cost, then the actual capital cost will be considered for determination of tariff of the Generating Company, Transmission Licensee, SLDC and Distribution Licensee.

34.4 The actual capital expenditure on COD for the original scope of work based on audited accounts of the Generating Company, Transmission Licensee, SLDC and Distribution Licensee, limited to original cost may be considered subject to prudence check by the Commission.

34.5 Where the power purchase agreement or bulk power transmission agreement provides for a ceiling of capital cost, the capital cost to be considered shall not exceed such ceiling.

34.6 The revenue earned from sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 51, shall be adjusted against the Capital Cost.

34.7 The capital cost may include initial spares capitalised as a percentage of the Plant and Machinery cost up to cut-off date, subject to following ceiling norms:

(a)	Coal-based/lignite-fired thermal generating stations	-	4.0%
(b)	Gas Turbine/Combined Cycle thermal generating stations	-	4.0%
(c)	Hydro generating stations including pumped storage hydro generating station.	-	4.0%
(d)	Transmission system and Distribution System		
(i)	Transmission Line & Distribution Line	-	1.0%
(ii)	Transmission Sub-station & Distribution Sub-station (Green Field)	-	4.0%

(iii)	Transmission Sub-station (Brown Field)	-	6.0%
(iv)	Series Compensation devices and HVDC Station	-	4.0%
(v)	Gas Insulated Sub-station (GIS)	-	5.0%
(vi)	Communication System	-	3.5%

34.8 Impact of revaluation of assets shall be permitted during the Control Period, provided it does not result in increase in tariff of Generating Company, Transmission Licensee, SLDC and Distribution Licensee.

34.9 Any benefit from such revaluation shall be passed on to persons sharing the capacity charge in case of a Generating Company and to long-term intra-State open access customers of transmission licensee or distribution licensee, or retail supply consumers in case of distribution licensees, at the time of annual truing up.

34.10 Any expenditure on replacement, renovation and modernization or extension of life of old fixed assets, as applicable to Generating Company, Transmission Licensee, SLDC and Distribution Licensee, shall be considered after writing off the net value of such replaced assets from the original capital cost and will be calculated as follows:

$$\text{Net Value of Replaced Assets} = \text{OCFA} - \text{AD} - \text{CC};$$

Where;

OCFA: Original Capital Cost of Replaced Assets;

AD: Accumulated depreciation pertaining to the Replaced Assets;

CC: Total Consumer Contribution pertaining to the Replaced Assets.

35 Additional capitalisation

35.1 The capital expenditure, actually incurred or projected to be incurred, in respect of new project or an existing project, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- (i) Undischarged liabilities recognized to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 34.7;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and
- (v) Change in law or compliance of any existing law:

Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.

35.2 The capital expenditure incurred or projected to be incurred in respect of the new project on the following counts within the original scope of work after the cut-off date may be admitted by the Commission, subject to prudence check:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- (ii) Change in law or compliance of any existing law;
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work; and
- (iv) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments, etc.

35.3 The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- (ii) Change in law or compliance of any existing law;
- (iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;
- (iv) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;
- (vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;
- (vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal/lignite based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;

- (viii) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;
- (ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and
- (x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialisation of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:

Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets, etc., bought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2016:

Provided further that if any expenditure has been claimed under Renovation and Modernisation (R&M) or repairs and maintenance under (O&M) expenses, same expenditure cannot be claimed under this Regulation.

35.4 Impact of additional capitalization on tariff, as the case may be, shall be considered during Truing Up of each financial year of the Control Period.

36 Consumer contribution, Deposit Work and Grant

36.1 The following nature of work carried out by the Transmission Licensee and Distribution Licensee shall be classified under this category:

- (a) Works after obtaining a part or all of the funds from the users in the context of deposit works;
- (b) Capital works undertaken by utilising grants received from the State and Central Governments, including funds under various schemes;
- (c) Any other grant of similar nature and such amount received without any obligation to return the same and with no interest costs attached to such subvention.

36.2 The expenses on such capital expenditure shall be treated as follows:

- (a) normative O&M expenses as specified in these Regulations shall be allowed;
- (b) the debt:equity ratio, shall be considered in accordance with Regulation 33, after deducting the amount of financial support provided through consumer contribution, deposit work, capital subsidy or grant;
- (c) provisions related to depreciation, as specified in Regulation 39, shall not be applicable to the extent of financial support provided through consumer contribution, deposit work, capital subsidy or grant;
- (d) provisions related to return on equity, as specified in Regulation 37, shall not be applicable to the extent of financial support provided through consumer contribution, deposit work, capital subsidy or grant;
- (e) provisions related to interest on loan capital, as specified in Regulation 38, shall not be applicable to the extent of financial support provided through consumer contribution, deposit work, capital subsidy or grant.

37 Return on Equity

37.1 Return on equity shall be computed on the paid up equity capital determined in accordance with Regulation 33 on the assets put to use, for the Generating Company, Transmission Licensee, SLDC and Distribution Licensee as the case may be and shall be allowed at the rate of 14% for Generating Companies, including hydro generation stations above 25 MW, Transmission Licensee, SLDC and Distribution Licensee:

Provided that for Generating Company, Transmission Licensee, SLDC and Distribution Licensee, Return on Equity shall be allowed on the amount of allowed equity capital for the assets put to use at the commencement of each financial year and on 50% of equity capital portion of the allowable capital cost for the investments put to use during the financial year:

Provided further that for the purpose of truing up for the Generating Company, Transmission Licensee, SLDC and Distribution Licensee, return on equity shall be allowed based on documentary evidence provided for the assets put to use during the year.

37.2 The premium raised by the Generating Company or the Transmission Licensee or SLDC or Distribution Licensee while issuing share capital and investment of internal resources created out of free reserve, if any, shall also be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting capital expenditure, and are within the ceiling of 30% of capital cost approved by the Commission.

37.3 Equity invested in foreign currency shall be converted to rupee currency based on the exchange rate prevailing on the date(s) it is subscribed.

38 Interest and finance charges

- 38.1 The loans arrived at in the manner indicated in Regulation 33 on the assets put to use, shall be considered as gross normative loan for calculation of interest on loan:

Provided that interest and finance charges on capital works in progress shall be excluded:

Provided further that in case of de-capitalisation or retirement or replacement of assets, the loan capital approved as mentioned above, shall be reduced to the extent of outstanding loan component of the original cost of the de-capitalised or retired or replaced assets, based on documentary evidence.

- 38.2 The normative loan outstanding as on April 1, 2016, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2016, from the gross normative loan.

- 38.3 The repayment for the year during the Control Period from FY 2016-17 to FY 2020-21 shall be deemed to be equal to the depreciation allowed for that year.

- 38.4 Notwithstanding any moratorium period availed by the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

- 38.5 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee:

Provided that at the time of truing up, the weighted average rate of interest calculated on the basis of the actual loan portfolio during the year applicable to the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee shall be considered as the rate of interest:

Provided further that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest for the actual loan shall be considered:

Provided also that if the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee, as the case may be, does not have actual loan, then the weighted average rate of interest of the other business of the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee regulated by the Commission shall be considered:

Provided also that if the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee, as the case may be, does not have actual

loan, and the other business of the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee regulated by the Commission also does not have actual loan, then the weighted average rate of interest of the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee as a whole shall be considered:

Provided also that if the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee as a whole does not have actual loan, then the Bank Rate plus 200 basis points shall be considered as the rate of interest for the purpose of allowing the interest on the normative loan.

- 38.6 The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest:

Provided that at the time of truing up, the normative average loan of the year shall be considered on the basis of the actual asset capitalisation approved by the Commission for the year.

- 38.7 The above interest computation shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by Consumer Contribution, Grants or Deposit Works carried out by Transmission Licensee or SLDC or Distribution Licensee or Generating Company, as the case may be.
- 38.8 The Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee, as the case may be, in the ratio of 2:1.
- 38.9 Interest shall be allowed on the amount held as security deposit held in cash from Transmission System Users, Distribution System Users and Retail consumers at the Bank Rate as on 1st April of the financial year in which the Petition is filed.

39 Depreciation

- 39.1 The value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission.
- 39.2 The Generation Company or Transmission Licensee or Distribution Licensee shall be permitted to recover depreciation on the value of fixed assets used in their respective Business computed in the following manner:
- (a) The approved original cost of the project/fixed assets shall be the value base for calculation of depreciation;
 - (b) Depreciation shall be computed annually based on the straight line method at the rates specified in the **Annexure I** to these Regulations:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets:

Provided further that for a Generating Company or a Transmission Licensee or SLDC or a Distribution Licensee formed as a result of a Transfer Scheme, the depreciation on assets transferred under the Transfer Scheme shall be charged as per rates specified in these Regulations for a period of 12 years from the date of the Transfer Scheme, and thereafter depreciation will be spread over the balance useful life of the assets:

Provided also that the Generating Company, Transmission Licensee, SLDC and Distribution Licensee shall show the depreciation separately for assets added up to March 31, 2016, for which depreciation has been allowed on the extent of financial support provided through consumer contribution, deposit work, capital subsidy or grant, and which has been offset by considering deferred income:

Provided also that the depreciation already charged after the date of the Transfer Scheme, shall not be restated:

Provided also that the Generating Company or Transmission Licensee or SLDC or Distribution Licensee, shall submit all such details or documentary evidence, as may be required under these Regulations and as stipulated by the Commission, from time to time, to substantiate the above claims:

Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life;

- (c) The salvage value of the asset shall be considered at 10 per cent of the allowable capital cost and depreciation shall be allowed up to a maximum of 90 per cent of the allowable capital cost of the asset:

Provided that in the case of hydro generating station, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government.

- 39.3 Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.
- 39.4 In case of the existing projects, the balance depreciable value as on April 1, 2016, shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to March 31, 2016, from the gross value of the assets.
- 39.5 In case of projected commercial operation of the asset for part of the year, depreciation shall be calculated based on the average of opening and closing value of asset, approved by the Commission:

Provided that depreciation will be re-calculated during truing-up for assets capitalised at the time of Truing Up of each year of the Control Period, based on documentary evidence of asset capitalised by the Applicant, subject to the prudence check of the Commission, such that the depreciation is calculated proportionately from the date of capitalisation.

40 Interest on Working Capital

40.1 Generation:

- (a) In case of coal based/oil-based/lignite-fired generating stations, working capital shall cover:
 - (i) Cost of coal or lignite for one (1) month for pit-head generating stations and one and a half (1½) months for non-pit-head generating stations, corresponding to target availability; plus
 - (ii) Cost of oil for one (1) month corresponding to target availability; plus
 - (iii) Cost of secondary fuel oil for two (2) months corresponding to target availability; plus
 - (iv) Operation and Maintenance expenses for one (1) month; plus
 - (v) Maintenance spares at one (1) per cent of the historical cost; plus
 - (vi) Receivables for sale of electricity equivalent to one (1) month of the sum of annual fixed charges and energy charges calculated on target availability;

Provided that in case of own generating stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations:

Provided further that at the time of truing up for any year, the working capital requirement shall be re-calculated on the basis of the values of components of working capital approved by the Commission in the truing up;

- (b) In case of Gas Turbine/Combined Cycle generating stations, working capital shall cover:
 - (i) Fuel cost for one (1) month corresponding to target availability factor, duly taking into account the mode of operation of the generating station on gas fuel and /or liquid fuel; plus
 - (ii) Liquid fuel stock for fifteen (15) days corresponding to target availability; plus
 - (iii) Operation and maintenance expenses for one (1) month; plus

- (iv) Maintenance spares at one (1) per cent of the historical cost; plus
- (v) Receivables equivalent to one (1) month of capacity charge and energy charge for sale of electricity equivalent calculated on normative plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel:

Provided that in case of own generating stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations:

Provided further that at the time of truing up for any year, the working capital requirement shall be re-calculated on the basis of the values of components of working capital approved by the Commission in the truing up;

- (c) In case of hydro power generating stations, working capital shall cover:

- (i) Operation and maintenance expenses for one (1) month;
- (ii) Maintenance spares at one (1) per cent of the historical cost; and
- (iii) Receivables equivalent to one (1) month of fixed cost:

Provided that in case of own generating stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations:

Provided further that at the time of truing up for any year, the working capital requirement shall be re-calculated on the basis of the values of components of working capital approved by the Commission in the truing up;

- (d) Interest on working capital shall be allowed at a rate equal to the State Bank Base Rate (SBBR) as on 1st April of the financial year in which the Petition is filed plus 250 basis points:

Provided that at the time of truing up for any year, interest on working capital shall be allowed at a rate equal to the weighted average State Bank Base Rate (SBBR) prevailing during the financial year plus 250 basis points.

40.2 Transmission:

- (i) The Transmission Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:
 - (i) Operation and maintenance expenses for one month; plus

- (ii) Maintenance spares at one (1) per cent of the historical cost; plus
- (iii) Receivables equivalent to one (1) month of transmission charges calculated on target availability level;
minus
- (iv) Amount, if any, held as security deposits except the security deposits held in the form of Bank Guarantee from Transmission System Users:

Provided that at the time of truing up for any year, the working capital requirement shall be re-calculated on the basis of the values of components of working capital approved by the Commission in the truing up;

- (ii) Interest shall be allowed at a rate equal to the State Bank Base Rate (SBBR) as on 1st April of the financial year in which the Petition is filed plus 250 basis points:

Provided that at the time of truing up for any year, interest on working capital shall be allowed at a rate equal to the weighted average State Bank Base Rate (SBBR) prevailing during the financial year plus 250 basis points.

40.3 SLDC

- (a) The SLDC shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:
 - (i) Operation and maintenance expenses for one month; plus
 - (ii) Maintenance spares at one (1) per cent of the historical cost; plus
 - (iii) Receivables equivalent to 15 days of the expected revenue from SLDC Charges;

Provided that at the time of truing up for any year, the working capital requirement shall be re-calculated on the basis of the values of components of working capital approved by the Commission in the truing up;

- (b) Interest shall be allowed at a rate equal to the State Bank Base Rate (SBBR) as on 1st April of the financial year in which the Petition is filed plus 250 basis points:

Provided that at the time of truing up for any year, interest on working capital shall be allowed at a rate equal to the weighted average State Bank Base Rate (SBBR) prevailing during the financial year plus 250 basis points.

40.4 Distribution Wires Business

- (a) The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Distribution Wires Business for the financial year, computed as follows:
 - (i) Operation and maintenance expenses for one month; plus
 - (ii) Maintenance spares at one (1) per cent of the historical cost; plus
 - (iii) Receivables equivalent to one (1) month of the expected revenue from charges for use of Distribution Wires at the prevailing tariffs; minus
 - (iv) Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from Distribution System Users except the security deposits held in the form of Bank Guarantees:

Provided that at the time of truing up for any year, the working capital requirement shall be re-calculated on the basis of the values of components of working capital approved by the Commission in the truing up;

- (b) Interest shall be allowed at a rate equal to the State Bank Base Rate (SBBR) as on 1st April of the financial year in which the Petition is filed plus 250 basis points:

Provided that at the time of truing up for any year, interest on working capital shall be allowed at a rate equal to the weighted average State Bank Base Rate (SBBR) prevailing during the financial year plus 250 basis points.

40.5 Retail Supply of Electricity

- (a) The Distribution Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:
 - (i) Operation and maintenance expenses for one month; plus
 - (ii) Maintenance spares at one (1) per cent of the historical cost; plus
 - (iii) Receivables equivalent to one (1) month of the expected revenue from sale of electricity at the prevailing tariffs; minus

Amount held as security deposits under clause (a) and clause (b) of sub-section (1) of Section 47 of the Act from consumers except the security deposits held in the form of Bank Guarantees:

Provided that at the time of truing up for any year, the working capital requirement shall be re-calculated on the basis of the values of components of working capital approved by the Commission in the truing up;

- (b) Interest shall be allowed at a rate equal to the State Bank Base Rate (SBBR) as on 1st April of the financial year in which the Petition is filed plus 250 basis points:

Provided that at the time of truing up for any year, interest on working capital shall be allowed at a rate equal to the weighted average State Bank Base Rate (SBBR) prevailing during the financial year plus 250 basis points.

- 40.6 For the purpose of Truing-up for each year, the variation between the normative interest on working capital computed at the time of Truing-up and the actual interest on working capital incurred by the Generating Company or Transmission Licensee or SLDC or Distribution Licensee, substantiated by documentary evidence, shall be considered as an efficiency gain or efficiency loss, as the case may be, on account of controllable factors, and shared between it and the respective Beneficiary or consumer as the case may be, in accordance with Regulation 24:

Provided that the contribution of delay in receipt of payment to the actual interest on working capital shall be deducted from the actual interest on working capital, before sharing of the efficiency gain or efficiency loss, as the case may be.

41 Tax on income

- 41.1 The Commission in its MYT Order shall provisionally approve Income Tax payable for each year of the Control Period, if any, based on the actual income tax paid, including cess and surcharge on the same, if any, as per latest Audited Accounts available for the Applicant, subject to prudence check.
- 41.2 Variation between Income Tax actually paid, including cess and surcharge on the same, if any, and approved, if any, on the income stream of the regulated business of Generating Companies, Transmission Licensees, SLDC and Distribution Licensees shall be reimbursed to/recovered from the Generating Companies, Transmission Licensees, SLDC and Distribution Licensees, based on the documentary evidence submitted at the time of truing up of each year of the Control Period, subject to prudence check.
- 41.3 Under-recovery or over-recovery of any amount from the beneficiaries or the consumers on account of such tax having been passed on to them shall be adjusted every year on the basis of income-tax assessment under the Income-Tax Act, 1961, as certified by the statutory auditors. The Generating Company, or the Transmission Licensee or SLDC or Distribution Licensee, as the case may be, may include this variation in its truing up Petition:

Provided that tax on any income stream other than the core business shall not be a pass through component in tariff and tax on such other income shall be borne

by the Generating Company or Transmission Licensee or the Distribution Licensee, as the case may be.

42 Rebate

- 42.1 For payment of bills of generation tariff or transmission charges through Letter of Credit or otherwise, within 7 days of presentation of bills, by the Generating Company or the Transmission Licensee, as the case may be, a rebate of 2% on billed amount, excluding the taxes, cess, duties, etc., shall be allowed.
- 42.2 Where payments are made subsequently through opening of Letter of Credit or otherwise, but within a period of one month of presentation of bills by the Generating Company or the Transmission Licensee, as the case may be, a rebate of 1% on billed amount, excluding the taxes, cess, duties, etc., shall be allowed.
- 42.3 For payment of bills of retail tariff by the consumers within 7 days of presentation of bills, a rebate on the billed amount, excluding the taxes, cess, duties, etc., shall be allowed at the rate stipulated in the prevalent Tariff Order;
- 42.4 Such rebate earned by the Distribution Licensee shall be considered under Non-Tariff Income for the Distribution Licensee;
- 42.5 Such rebate given by the Generating Company or the Transmission Licensee or the Distribution Licensee to the beneficiary shall not be allowed as an expense for the Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be.

43 Delayed Payment Surcharge

In case the payment of bills of generation tariff or transmission charges or by the beneficiary or beneficiaries is delayed beyond a period of 30 days from the date of billing, late payment surcharge at the rate of 1.25% per month on billed amount shall be levied for the period of delay by the Generating Company or the Transmission Licensee or SLDC, as the case may be.

44 Foreign Exchange Rate Variation

- 44.1 The Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee, as the case may be, may hedge foreign exchange exposure in respect of the interest on foreign currency loan and repayment of foreign loan acquired for the generating station or the transmission system or distribution system, in part or full, at the discretion of the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee.
- 44.2 Every Generating Company and Transmission Licensee and SLDC and Distribution Licensee shall recover the cost of hedging of foreign exchange rate variation corresponding to the normative foreign debt, in the relevant year on

year-to-year basis as expense in the period in which it arises and extra rupee liability corresponding to such foreign exchange rate variation shall not be allowed against the hedged foreign debt.

- 44.3 To the extent the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee is not able to hedge the foreign exchange exposure, the extra rupee liability towards interest payment and loan repayment corresponding to the normative foreign currency loan in the relevant year shall be permissible provided it is not attributable to the Generating Company or the Transmission Licensee or SLDC or the Distribution Licensee or its suppliers or contractors.

45 Recovery of cost of hedging Foreign Exchange Rate Variation

Every Generating Company and the Transmission Licensee and the SLDC and the Distribution Licensee shall recover the cost of hedging and foreign exchange rate variation on year-to-year basis as income or expense in the period in which it arises.

CHAPTER 4: GENERATION

46 Applicability

- 46.1 The Regulations specified in this Chapter shall apply for determining the tariff for supply of electricity to a Distribution Licensee from conventional sources of generation and hydro generation stations of capacity more than 25 MW:

Provided that determination of tariff for supply of electricity to a Distribution Licensee from Renewable Energy sources of generation shall be in accordance with terms and conditions as stipulated in the relevant Regulations/Orders of the Commission.

- 46.2 The Commission shall be guided by the Regulations contained in this Chapter in determining the tariff for supply of electricity by a Generating Company to a Distribution Licensee in the following cases:

- a) where such tariff is pursuant to a power purchase agreement or arrangement entered into subsequent to the date of effectiveness of these Regulations; or
- b) where such tariff is pursuant to a power purchase agreement or arrangement entered into prior to the date of effectiveness of these Regulations and either the Commission has not previously approved such agreement/arrangement or the agreement/arrangement envisages that the tariff shall be based on the GERC Tariff Regulations; or
- c) where the Distribution Licensee is engaged in the business of generation of electricity, in determining the transfer price at which electricity is supplied by the Generation Business of the Distribution Licensee to its Retail Supply Business:

Provided that the Commission may deviate from the norms contained in this Chapter or specify alternative norms for particular cases, where it so deems appropriate, having regard to the circumstances of the case:

Provided further that the reasons for such deviation(s) shall be recorded in writing.

- 46.3 Notwithstanding anything contained in this **Chapter 4**, the Commission shall adopt the tariff if such tariff has been determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government.

47 Petition for determination of generation tariff

- 47.1 A Generating Company is required to file a Petition for determination of tariff for supply of electricity to Distribution Licensees in accordance with the provisions of **Chapter 2** of these Regulations.

- 47.2 Tariff in respect of a Generating Station under these Regulations may be determined Stage-wise, Unit-wise or for the whole Generating Station.

Provided that the terms and conditions for determination of tariff for Generating Stations specified in this Part shall apply in like manner to Stages or Units, as the case may be, as to Generating Stations.

- 47.3 Where the tariff is being determined for Stage or Generating Unit of a Generating Station, the Generating Company shall adopt a reasonable basis for allocation of capital cost relating to common facilities and allocation of joint and common costs across all Stages or Generating Units, as the case may be:

Provided that the Generation Company shall maintain an allocation statement providing the basis for allocation of such costs, which shall be duly audited and certified by the statutory auditors and submit such audited and certified statement to the Commission along with the application for determination of tariff.

- 47.4 In the case of an existing Generating Station, the application for determination of generation tariff shall be made not later than one hundred and eighty days from the date of notification of these Regulations, based on the approved capital cost including any additional capital expenditure already approved up to March 31, 2016, based either on actual or on projected additional capital expenditure and estimated additional capital expenditure for the ensuing financial years.

- 47.5 In the case of existing projects, the Commission may allow the Generation Company, the tariff based on the approved capital cost as on the April 1, 2016 and projected additional capital expenditure for the ensuing financial years:

Provided that the Generation Company shall continue to bill the beneficiaries at the tariff approved by the Commission and applicable as on March 31, 2016 for the period starting from April 1, 2016 till approval of tariff by the Commission in accordance with these Regulations.

- 47.6 The Generation Company shall file the application for determination of provisional tariff for new Generating Station, one hundred and eighty days prior to the anticipated date of commercial operation of Generating Unit or Stage or Generating Station as a whole, as the case may be.

- 47.7 The Generation Company shall make an application for determination of tariff based on capital expenditure incurred or projected to be incurred up to the date of commercial operation and additional capital expenditure incurred, duly certified by the statutory auditors:

Provided that the application shall contain details of underlying assumptions for the projected capital cost and additional capital cost, wherever applicable.

- 47.8 In the case of new projects, the Generation Company may be allowed provisional tariff by the Commission from the anticipated date of commercial operation, based on the projected capital expenditure.

- 47.9 If the date of commercial operation is delayed beyond one hundred and eighty days from the date of issue of tariff order, the tariff granted shall be deemed to have been withdrawn and the Generation Company shall be required to file after the date of commercial operation of the project, afresh application for determination of tariff.
- 47.10 The Generation Company shall file the application for determination of final tariff for new Generating Station within one hundred and eighty days from the date of commercial operation of Generating Unit or Stage or Generating Station as a whole, as the case may be, based on the audited capital expenditure and capitalisation as on the date of commercial operation.
- 47.11 Truing up of the capital cost for the new Generating Station shall be done by the Commission based on prudence check of the audited capital expenditure and capitalisation as on the date of commercial operation.
- 47.12 Where the actual capital cost incurred on year to year basis is lesser than the capital cost approved for determination of tariff by the Commission on the basis of the projected capital cost as on the date of commercial operation or on the basis of the projected additional capital cost, by five percent or more, the Generation Company shall refund to the beneficiaries as approved by the Commission, the excess tariff realised corresponding to excess capital cost, along with interest at 1.20 times of the Base Rate of State Bank of India plus three hundred and fifty basis points, as prevalent on the first day of April of the respective financial year.
- 47.13 Where the actual capital cost incurred on year to year basis is higher than the capital cost approved for determination of tariff by the Commission on the basis of the projected capital cost as on the date of commercial operation or on the basis of the projected additional capital cost, by five percent or more, the Generation Company shall, subject to the approval of the Commission, be entitled to recover from the beneficiaries the shortfall in tariff corresponding to such decrease in capital cost along with interest at 0.80 times of the Base Rate of State Bank of India plus three hundred and fifty basis points, as prevalent on the first day of April of the respective financial year.
- 47.14 In relation to multi-purpose hydroelectric Projects, with irrigation, flood control and power components, the capital cost chargeable to the power component of the Project only shall be considered for determination of tariff.

48 Components of Tariff

- 48.1 The tariff for sale of electricity from a thermal Power Generating Station shall comprise of two parts, namely, the Annual Fixed Charges and Energy Charges (for recovery of primary and secondary fuel cost).
- 48.2 The tariff for sale of electricity from a Hydro Generating Station shall comprise of two parts, namely, the Capacity Charge and Energy Charge.

49 Annual Fixed Charges

The Annual Fixed Charges shall comprise of the following elements:

- (a) Depreciation;
- (b) Interest and Finance Charges on Loan Capital;
- (c) Interest on Working Capital;
- (d) Operation & Maintenance Expenses;
- (e) Return on Equity;
- (f) Special allowance in lieu of Renovation & Modernisation, wherever applicable;
- (g) SLDC Fees and Charges
minus:
- (h) Non-Tariff Income:

Provided that Depreciation, Interest and finance charges on Loan Capital, Interest on Working Capital and Return on Equity for Thermal and Hydro Generating Stations shall be allowed in accordance with the provisions specified in **Chapter 3** of these Regulations:

Provided further that prior period income/expenses shall be allowed by the Commission at the time of truing up based on audited accounts, on a case to case basis, subject to prudence check.

50 Renovation & Modernisation

- 50.1 The Generating Company, for meeting the expenditure on Renovation and Modernization for the purpose of extension of life beyond the useful life of the generating station or a unit thereof, shall file an application before the Commission for approval of the proposal with a Detailed Project Report giving complete scope, justification, cost-benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost, record of consultation with beneficiaries and any other information considered to be relevant by the Generating Company.
- 50.2 Where the Generating Company files an application for approval of its proposal for Renovation and Modernisation, the approval shall be granted after due consideration of reasonableness of the cost estimates, schedule of completion, use of efficient technology, cost-benefit analysis, and such other factors as may be considered relevant by the Commission.

- 50.3 In case of gas/ liquid fuel based open/combined cycle thermal generating station, any expenditure which has become necessary for renovation of gas turbines/steam turbine after 25 years of operation from its COD and an expenditure necessary due to obsolescence or non-availability of spares for efficient operation of the stations shall be allowed:

Provided that any expenditure included in the R&M on consumables and cost of components and spares which is generally covered in the O&M expenses during the major overhaul of gas turbine shall be suitably deducted after due prudence from the R&M expenditure to be allowed.

- 50.4 Any expenditure incurred or projected to be incurred and admitted by the Commission after prudence check based on the estimates of renovation and modernization expenditure and life extension, and after deducting the accumulated depreciation already recovered from the original project cost, shall form the basis for determination of tariff.

- 50.5 In case of coal-based/lignite fired thermal generating station, the Generating Company, may, at its discretion, avail of a 'special allowance' in accordance with the norms specified in Regulation 50.6, as compensation for meeting the requirement of expenses including Renovation and Modernisation beyond the useful life of the generating station or a unit thereof, and in such an event, revision of the capital cost shall not be allowed and the applicable operational norms shall not be relaxed but the special allowance shall be included in the Annual Fixed Cost:

Provided that such option shall not be available for a generating station or Unit for which Renovation and Modernization has been undertaken and the expenditure has been admitted by the Commission before the date of effectiveness of these Regulations, or for a generating station or unit which is in a depleted condition or operating under relaxed operational and performance norms.

- 50.6 The Special Allowance shall be @ Rs. 7.5 lakh/MW/year for the year 2016-17 and thereafter escalated @ 5.72% every year during the Control Period, unit-wise from the next financial year from the respective date of the completion of useful life with reference to the date of commercial operation of the respective unit of generating station:

Provided that in respect of a unit in commercial operation for more than 25 years as on 1.4.2016, this allowance shall be admissible from the year 2016-17:

Provided further that the special allowance for the generating station, which, in its discretion, has already availed of a 'special allowance' in accordance with the norms specified in clause (iv) of Regulation 51.6 of Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2011, shall be allowed Special Allowance by escalating the special allowance allowed for the year 2015-16 @ 5.72% every year during the Control Period.

- 50.7 In the event of granting special allowance by the Commission, the expenditure incurred or utilized from special allowance shall be maintained separately by the generating station and details of same shall be made available to the Commission as and when directed to furnish details of such expenditure.

51 Sale of Infirm Power

- 51.1 The tariff for sale of infirm power from a thermal generating station to the Distribution Licensee shall be equivalent to the actual fuel cost, including the secondary fuel cost, as the case may be, incurred during that period subject to prudence check:

Provided that any revenue other than the recovery of fuel cost earned by the Generating Company from sale of infirm power shall be used for reduction in capital cost and shall not be treated as revenue.

- 51.2 The tariff for sale of infirm power from a hydro-electric generating station to the Distribution Licensee shall be equivalent to the energy charge rate for the first financial year and revenue recovered from sale of infirm power shall be deducted from the capital cost.

52 Non-Tariff Income

- 52.1 The amount of Non-Tariff Income relating to the Generation Business as approved by the Commission shall be deducted from the Annual Fixed Cost in determining the Annual Fixed Charge of the Generation Company:

Provided that the Generation Company shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission from time to time.

- 52.2 The indicative list of various heads to be considered for Non-Tariff Income shall be as under:
- a) Income from rent of land or buildings;
 - b) Income from sale of scrap;
 - c) Income from statutory investments;
 - d) Income from sale of Ash/rejected coal;
 - e) Interest on advances to suppliers/contractors;
 - f) Rental from staff quarters;
 - g) Rental from contractors;
 - h) Income from hire charges from contractors and others;
 - i) Income from advertisements, etc.:

Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated business of the Generating Company shall not be included in Non-Tariff Income.

53 Norms of operation for Thermal Generating Stations

53.1 Normative Annual Plant Availability Factor:

- (a) Normative Annual Plant Availability Factor for full recovery of Annual Fixed Charges shall be 85 per cent for all thermal generating stations, except those covered under clause (b):

Provided that in case of shortage of coal and uncertainty of assured coal supply on sustained basis, the NAPAF for recovery of fixed charges shall be 83% till the coal supply position improves, which shall be reviewed annually.

- (b) Normative Annual Plant Availability Factor for full recovery of Annual Fixed Charges for the following stations shall be:

Table 1: Normative Annual Plant Availability Factor for GSECL Generating Stations under Regulation 53.1 (b)

Station	Target Availability (%)
Ukai TPS (Unit 1- 5)	80
Gandhinagar TPS (Unit 1- 4)	84
Wanakbori TPS (Unit 1-6)	85
Sikka TPS	80
Kutch Lignite (Unit 1-3)	75
Kutch Lignite (Unit 4)	80

Provided that the Commission may revise the norms for Availability for the above mentioned Generating Stations in case of Renovation & Modernisation undertaken by the Generating Station;

53.2 Normative Annual Plant Load Factor for Incentive:

- (a) Normative Annual Plant Load Factor for Incentive shall be 85 per cent for all thermal generating stations, except those covered under clause (b);
- (b) Normative Annual Plant Load Factor for Incentive for Thermal Generating Stations of Gujarat State Electricity Generation Company Limited (GSECL):

Table 2: Normative Annual Plant Load Factor for GSECL Generating Stations under Regulation 53.2 (b)

Station	Target PLF (%)
Ukai TPS (Unit 1- 5)	80
Gandhinagar TPS (Unit 1- 4)	85
Wanakbori TPS (Unit 1-6)	85
Sikka TPS	80
Kutch Lignite (Unit 1-3)	80
Kutch Lignite (Unit 4)	80

53.3 Gross Station Heat Rate – For existing Generating Stations:

- a) Thermal Generating Stations of Gujarat State Electricity Generation Company Limited (GSECL):

Table 3: Gross Station Heat Rate for GSECL Stations for the Control Period

(in kcal/kWh)					
Stations	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Ukai TPS (Unit 1 - 5)	2750	2750	2750	2750	2750
Gandhinagar TPS (Unit 1 - 4)	2679	2679	2679	2679	2679
Wanakbori TPS (Unit 1 – 6)	2625	2625	2625	2625	2625
Sikka TPS	3008	3003	2998	2993	2988
Kutch Lignite TPS (Unit 1 - 3)	3231	3231	3231	3231	3231
Kutch Lignite TPS	3000	3000	3000	3000	3000

Stations	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
(Unit 4)					
Dhuvaran CCPP - 2	1950	1950	1950	1950	1950
Ukai-6	2385	2385	2385	2385	2385
Dhuvaran CCPP-3	1850	1850	1850	1850	1850
Sikka 3 & 4	2398	2398	2398	2398	2398

Provided that the Commission may revise the norms for the Gross Station Heat Rate for the above mentioned Generating Stations in case of Renovation & Modernisation undertaken by the Generating Station;

b) Thermal Generating Units of Torrent Power Limited - Generation Business (TPL-G):

**Table 4: Gross Station Heat Rate for TPL-G Stations for the Control Period
(in kcal/kWh)**

Station Name	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Sabarmati 'C'	3136	3136	3136	3136	3136
Sabarmati 'D'	2450	2450	2450	2450	2450
Sabarmati 'E' & 'F'	2455	2455	2455	2455	2455

Provided that the Commission may revise the norms for the heat rate for the above mentioned Generating Stations in case of Renovation & Modernisation undertaken by the Generating Station;

53.4 Gross Station Heat Rate – For new Generating Units or stations achieving COD after the effectiveness of these Regulations:

(i) Coal-based and lignite-fired Thermal Generating Stations
= 1.045 X Design Heat Rate (kcal/kWh)

Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure.

Provided that the design heat rate shall not exceed the following maximum design unit heat rates depending upon the pressure and temperature ratings of the units:

Pressure Rating (Kg/cm²)	150	170	170	247
SHT/RHT (°C)	535/535	537/537	537/565	565/593
Type of BFP	Electrical Driven	Turbine Driven	Turbine Driven	Turbine Driven
Max Turbine Heat Rate (kcal/kWh)	1955	1950	1935	1850
Min. Boiler Efficiency				
Sub-Bituminous Indian Coal	0.86	0.86	0.86	0.86
Bituminous Imported Coal	0.89	0.89	0.89	0.89
Maximum Design Unit Heat Rate (kcal/kWh)				
Sub-Bituminous Indian Coal	2273	2267	2250	2151
Bituminous Imported Coal	2197	2191	2174	2078

Provided further that in case pressure and temperature parameters of a unit are different from above ratings, the maximum design unit heat rate of the nearest class shall be taken:

Provided also that where unit heat rate has not been guaranteed but turbine cycle heat rate and boiler efficiency are guaranteed separately by the same supplier or different suppliers, the unit design heat rate shall be arrived at by using guaranteed turbine cycle heat rate and boiler efficiency:

Provided also that where the boiler efficiency is below 86% for Sub-bituminous Indian coal and 89% for bituminous imported coal, the same shall be considered as 86% and 89% respectively for Sub-bituminous Indian coal and bituminous imported coal for computation of station heat rate:

Provided also that maximum turbine cycle heat rate shall be adjusted for type of dry cooling system:

Provided also that in case of lignite-fired generating stations (including stations based on CFBC technology), maximum design heat rates shall be increased using the multiplying factors for moisture content as given below:

- (a) For lignite having 50% moisture: 1.10
- (b) For lignite having 40% moisture: 1.07
- (c) For lignite having 30% moisture: 1.04
- (d) For other values of moisture content, multiplying factor shall be prorated for moisture content between 30-40% and 40-50% depending upon the rated values of multiplying factor for the respective range given under sub-clauses (a) to (c) above.

Provided also that for Generating stations based on coal rejects, the Commission will approve the Design Heat Rate on case to case basis.

Note: In respect of generating units where the boiler feed pumps are electrically operated, the maximum design unit heat rate shall be 40 kcal/kWh lower than the maximum design unit heat rate specified above with turbine driven BFP.

(ii) Gas-based/Liquid-based Thermal Generating Unit(s):

= 1.05 x Design Heat Rate of the Unit/Block for Natural Gas and RLNG (kcal/kWh);

= 1.071 x Design Heat Rate of the Unit/Block for Liquid Fuel (kcal/kWh);

Where the Design Heat Rate of a Unit shall mean the guaranteed heat rate for a Unit at 100% MCR and at site ambient conditions; and the Design Heat Rate of a block shall mean the guaranteed heat rate for a block at 100% MCR, site ambient conditions, zero percent make up, design cooling water temperature/back pressure.

53.5 Secondary fuel oil consumption:

a) Secondary fuel oil consumption (SFC) for all thermal generating Units/Stations, except those covered under clause (b) and clause (c) shall be as under:

- i. Coal-based generating stations: 0.50 ml/kWh;
- ii. Lignite-Fired generating stations except stations based on CFBC technology: 2.00 ml/kWh;
- iii. Lignite-Fired generating stations based on CFBC technology: 1.00 ml/kWh;

b) SFC norm for following GSECL stations, shall be as under:

Table 5: SFC for GSECL generating stations under Regulation 53.5 (b) for the Control Period

Stations	2016-17 (ml/kWh)	2017-18 (ml/kWh)	2018-19 (ml/kWh)	2019-20 (ml/kWh)	2020-21 (ml/kWh)
UkaiTPS (Unit 1- 5)	1.00	1.00	1.00	1.00	1.00
Gandhinagar TPS (Unit 1-4)	1.50	1.50	1.50	1.50	1.50
Wanakbori (Unit1-6)	1.00	1.00	1.00	1.00	1.00

Stations	2016-17 (ml/kWh)	2017-18 (ml/kWh)	2018-19 (ml/kWh)	2019-20 (ml/kWh)	2020-21 (ml/kWh)
Sikka TPS	3.00	3.00	3.00	3.00	3.00
Kutch Lignite TPS (Unit 1- 4)	3.00	3.00	3.00	3.00	3.00
Ukai 6	1.00	1.00	1.00	1.00	1.00
Sikka 3 & 4	1.00	1.00	1.00	1.00	1.00

c) SFC norm for following TPL-G station, shall be as under:

Table 6: SFC for the Control Period for TPL-G Stations

Stations	2016-17 (ml/kWh)	2017-18 (ml/kWh)	2018-19 (ml/kWh)	2019-20 (ml/kWh)	2020-21 (ml/kWh)
Sabarmati C	2.00	2.00	2.00	2.00	2.00
Sabarmati 'D', 'E', and 'F'	1.00	1.00	1.00	1.00	1.00

Provided that the Commission may revise the norms for the secondary fuel oil consumption for the above mentioned Generating Stations in case of Renovation & Modernisation undertaken by the Generating Station.

53.6 Lime Stone consumption:

Lime Stone consumption for Lignite based stations using CFBC Technology: 0.05 kg/ kWh.

53.7 Auxiliary Energy Consumption:

(a) Existing generating stations of GSECL:

Table 7: Auxiliary Consumption for GSECL Stations for the Control Period:

Stations	2016-17 (%)	2017-18 (%)	2018-19 (%)	2019-20 (%)	2020-21 (%)
Ukai TPS (Unit 1-5)	9.00	9.00	9.00	9.00	9.00
Gandhinagar TPS (Unit 1- 4)	10.00	10.00	10.00	10.00	10.00
Wanakbori TPS (Unit 1-6)	9.00	9.00	9.00	9.00	9.00
Sikka TPS (Unit 1-2)	11.00	11.00	11.00	11.00	11.00

Stations	2016-17 (%)	2017-18 (%)	2018-19 (%)	2019-20 (%)	2020-21 (%)
Kutch Lignite TPS (Unit 1-4)	12.00	12.00	12.00	12.00	12.00
Ukai (Unit 6)	6.00	6.00	6.00	6.00	6.00
Dhuvaran CCPP-3	3.00	3.00	3.00	3.00	3.00
Sikka 3 & 4	9.00	9.00	9.00	9.00	9.00

(b) Existing generating stations of TPL-G:

Table 8: Auxiliary Energy consumption for TPL-G Station for the Control Period

Stations	2016-17 (%)	2017-18 (%)	2018-19 (%)	2019-20 (%)	2020-21 (%)
Sabarmati C	9.50	9.50	9.50	9.50	9.50
Sabarmati 'D', 'E', and 'F'	9.00	9.00	9.00	9.00	9.00

Provided that the Commission may revise the norms for the auxiliary energy consumption for the above mentioned Generating Stations in case of Renovation & Modernisation undertaken by the Generating Station.

(c) New Coal-based Generating Stations:

Table 9: Auxiliary Energy Consumption for the Control Period

Auxiliary Energy Consumption	With Natural Draft cooling tower or without cooling tower
(i) 200 MW series	8.50%
(ii) 250/330/350/500 MW & above	
Steam driven boiler feed pumps	5.25%
Electrically driven boiler feed pumps	7.75%

Provided further that for the thermal generating stations with induced draft cooling towers, the norms shall be further increased by 0.50%, as compared to the above norms.

- (d) Gas Turbine/Combined Cycle generating stations:

Existing Generating Stations

- (i) Combined cycle : 3.00%;
- (ii) Open cycle : 1.00%;

New Generating Stations

- (i) Combined cycle : 2.50%;
- (ii) Open cycle : 1.00%;

Provided that for generating stations having Gas Booster, 1% additional auxiliary consumption shall be allowed.

- (e) New lignite-fired thermal generating stations:

- (i) All generating stations with below 200 MW sets: 12%;
- (ii) All generating stations with 200 MW sets and above: 0.50% more than that allowed for coal based generating stations under Table 8 above:

Provided that for the lignite fired stations using CFBC technology, the auxiliary energy consumption norms shall be 1.50 % more than the auxiliary energy consumption norms of coal based generating stations as specified above.

53.8 Transit and Handling Losses:

Transit and handling losses for coal or lignite based generating stations, as a percentage of quantity of coal or lignite dispatched by the coal or lignite supply company during the month shall be as given below:

- (a) Coal or lignite-based Generating Stations, other than those covered under Clause (b):
 - i. Pit head generating stations: 0.20%;
 - ii. Non-pit head generating stations: 0.80%;

Provided that in case of pit head stations if coal or lignite is procured from sources other than the pit head mines which is transported to the station through rail, transit loss of 0.8% shall be applicable:

Provided further that in case of imported coal, the transit and handling losses shall be 0.2%.

(b) Coal-based Generating Stations for TPL-G:

Table 10: Transit Loss for TPL-G Stations for the Control Period

Stations	2016-17 (%)	2017-18 (%)	2018-19 (%)	2019-20 (%)	2020-21 (%)
TPL-G	0.80	0.80	0.80	0.80	0.80

54 Operation and Maintenance expenses for thermal Generating Stations

Existing Generating Stations

- a) The Operation and Maintenance expenses excluding water charges and including insurance, shall be derived on the basis of the average of the actual Operation and Maintenance expenses excluding water charges and including insurance for the three (3) years ending March 31, 2015, subject to prudence check by the Commission.
- b) The average of such operation and maintenance expenses excluding water charges and including insurance shall be considered as operation and maintenance expenses excluding water charges and including insurance for the financial year ended March 31, 2014 and shall be escalated year on year at the escalation factor of 5.72% to arrive at operation and maintenance expenses excluding water charges and including insurance for subsequent years up to FY 2020-21:

Provided that water charges shall be allowed separately as per actuals, subject to prudence check:

Provided further that in case an existing generating station has been in operation for less than three (3) years as on the date of effectiveness of these Regulations, the O&M Expenses shall be allowed as specified under Regulation 55 for New Generating Stations.

55 New Generating Stations

- a) For coal based generating Units/Stations:

Table 11: O&M Expense Norms of New Coal based Generating Stations for the Control Period

Rs. Lakh/MW

Particulars	O&M Expense Norms
FY 2016-17	19.19
FY 2017-18	20.29
FY 2018-19	21.45

Particulars	O&M Expense Norms
FY 2019-20	22.67
FY 2020-21	23.97

Provided that the above norms shall be multiplied by the following factors for the additional Units whose COD occurs on or after 1.4.2016 in the same Station:

Additional 4th & 5th Units : 0.90
Additional 6th & more Units : 0.85

b) For lignite based generating stations:

Table 12: O&M Expense Norms of New Lignite based Generating Stations for the Control Period (Rs. Lakh/MW)

Particulars	O&M Expense Norms
FY 2016-17	28.57
FY 2017-18	30.20
FY 2018-19	31.93
FY 2019-20	33.75
FY 2020-21	35.68

c) Gas Turbine/Combined Cycle generating stations:

Table 13: O&M Expense Norms of New Gas Turbine/Combined Cycle generating stations for the Control Period

Rs. Lakh/MW

Year	Gas Turbine/Combined Cycle generating stations other than small gas turbine power generating stations	Small gas turbine power generating stations	Advance 'F' Class Machines
FY 2016-17	21.85	37.74	29.98
FY 2017-18	23.10	39.90	31.70
FY 2018-19	24.42	42.18	33.51
FY 2019-20	25.82	44.60	35.43
FY 2020-21	27.30	47.15	37.45

56 Norms of operation for Hydro Generating Stations

56.1 The norms of operation for existing GSECL hydro generating stations for recovery of Annual Fixed Charges, shall be as under:

Table 14: Normative Annual Plant Availability Factor and Auxiliary Consumption for GSECL existing Hydro Generating Stations

Station	Normative Annual Plant Availability (NAPAF)	Aux. Consumption incl. Transformer Losses
Ukai Hydro	80 %	0.6%
Kadana Hydro	80 %	1.00%

56.2 The following Normative Annual Plant Availability Factor (NAPAF) shall apply to other hydro generating stations for recovery of Annual Fixed Charges:

- Storage and Pondage type plants with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of up to 8%, and where plant availability is not affected by silt : 90%
- In case of storage and pondage type plants with head variation between full reservoir level and minimum draw down level is more than 8% and when plant availability is not affected by silt, the month wise peaking capability as provided by the project authorities in the DPR (approved by CEA or the State Government) shall form basis of fixation of NAPAF.
- Pondage type plants where plant availability is significantly affected by silt: 85%.
- Run-of-river type plants: NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available/relevant.
- A further allowance may be made by the Commission in NAPAF determination under special circumstances, e.g., abnormal silt problem or other operating conditions, and known plant limitations.

56.3 The following Auxiliary Energy Consumption shall apply to other hydro generating stations:

- Surface hydro generating stations:
 - With rotating exciters mounted on the generator shaft: 0.70%;
 - With static excitation system: 1.00%;
- Underground hydro generating station:
 - With rotating exciters mounted on the generator shaft: 0.90%;
 - With static excitation system: 1.20%.

57 Operation and Maintenance Expenses for Hydro Generating Stations

57.1 For Existing Stations:

- a) The Operation and Maintenance expenses including insurance shall be derived on the basis of the average of the actual Operation and Maintenance expenses for the three (3) years ending March 31, 2015, subject to prudence check by the Commission.
- b) The average of such operation and maintenance expenses shall be considered as operation and maintenance expenses for the financial year ended March 31, 2014 and shall be escalated at the escalation factor of 5.72% to arrive at operation and maintenance expenses for subsequent years up to FY 2020-21.

57.2 For New Stations:

- (1) O&M expenses for the first year of operation will be 2% of the original project cost (excluding cost of rehabilitation and resettlement works).
- (2) The O&M expenses for each subsequent year will be determined by escalating the base expenses determined above, at the escalation factor of 5.72%.

58 Computation and Payment of Annual Fixed Charges and Energy Charges for Thermal Generating Stations

58.1 The fixed cost of a thermal generating station shall be computed on annual basis, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge. The total capacity charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share / allocation in the capacity of the generating station.

58.2 The capacity charge payable to a thermal generating station for a calendar month shall be calculated in accordance with the following formulae:

$$CC_1 = (AFC/12) (PAF_1 / NAPAF) \text{ subject to ceiling of } (AFC/12)$$

$$CC_2 = ((AFC/6) (PAF_2 / NAPAF) \text{ subject to ceiling of } (AFC/6)) \text{ ener}_1$$

$$CC_3 = ((AFC/4) (PAF_3 / NAPAF) \text{ subject to ceiling of } (AFC/4)) \text{ enera}_1 + CC_2$$

$$CC_4 = ((AFC/3) (PAF_4 / NAPAF) \text{ subject to ceiling of } (AFC/3)) F \\ (CC_1 + CC_2 + CC_3)$$

$$CC_5 = ((AFC \times 5/12) (PAF_5 / NAPAF) \text{ subject to ceiling of } (AFC \times 5/12))) \\ (CC_1 + CC_2 + CC_3 + CC_4)$$

$$\begin{aligned}
CC_6 &= ((AFC/2) (PAF_6 / NAPAF) \text{ subject to ceiling of } (AFC/2)) FC/2)_1 + CC_2 \\
&\quad + CC_3 + CC_4 + CC_5) \\
CC_7 &= ((AFC \times 7/12) (PAF_7 / NAPAF) \text{ subject to ceiling of } (AFC \times 7/12)) \\
&\quad 7/12)_1 + CC_2 + CC_3 + CC_4 + CC_5 + CC_6) \\
CC_8 &= ((AFC \times 2/3) (PAF_8 / NAPAF) \text{ subject to ceiling of } (AFC \times 2/3)) \\
&\quad 2/3)_1 + CC_2 + CC_3 + CC_4 + CC_5 + CC_6 + CC_7) \\
CC_9 &= ((AFC \times 3/4) (PAF_9 / NAPAF) \text{ subject to ceiling of } (AFC \times 3/4)) \\
&\quad 3/4)_1 + CC_2 + CC_3 + CC_4 + CC_5 + CC_6 + CC_7 + CC_8) \\
CC_{10} &= ((AFC \times 5/6) (PAF_{10} / NAPAF) \text{ subject to ceiling of } (AFC \times 5/6)) \\
&\quad 5/6)_1 + CC_2 + CC_3 + CC_4 + CC_5 + CC_6 + CC_7 + CC_8 + CC_9) \\
CC_{11} &= ((AFC \times 11/12) (PAF_{11} / NAPAF) \text{ subject to ceiling of } (AFC \times 11/12)) \\
&\quad 1(CC_1 + CC_2 + CC_3 + CC_4 + CC_5 + CC_6 + CC_7 + CC_8 + CC_9 + CC_{10}) \\
CC_{12} &= ((AFC) (PAF_Y / NAPAF) \text{ subject to ceiling of } (AFC)) (AFC)_1 + CC_2 \\
&\quad + CC_3 + CC_4 + CC_5 + CC_6 + CC_7 + CC_8 + CC_9 + CC_{10} + CC_{11})
\end{aligned}$$

Provided that in case of generating station or unit thereof or transmission system or an element thereof, as the case may be, under shutdown due to Renovation and Modernisation, the generating company or the transmission licensee shall be allowed to recover part of AFC which shall include O&M expenses and interest on loan only.

Where,

AFC = Annual fixed cost specified for the year, in Rupees.
 NAPAF = Normative annual plant availability factor in percentage.
 PAF_N = Percent Plant availability factor achieved up to the end of the nth month.
 PAFY = Percent Plant availability factor achieved during the Year

CC₁, CC₂, CC₃, CC₄, CC₅, CC₆, CC₇, CC₈, CC₉, CC₁₀, CC₁₁ and CC₁₂ are the Capacity Charges of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th and 12th month, respectively.

58.3 The PAFM up to the end of a particular month and PAFY shall be computed in accordance with the following formula:

$$PAFM \text{ or } PAFY = \frac{N}{10000} \times \sum_{i=1}^N DC_i / \{ N \times IC \times (100 - AUX) \} \%$$

Where,

AUX = Normative auxiliary energy consumption in percentage.
 DC_i = Average declared capacity (in ex-bus MW), for the ith day of the period i.e. the month or the year as the case may be, as certified by the concerned load dispatch centre after the day is over.

IC = Installed Capacity (in MW) of the generating station
N= Number of days during the period.

Note: DC_i and IC shall exclude the capacity of generating units not declared under commercial operation. In case of a change in IC during the concerned period, its average value shall be taken.

- 58.4 The energy charge shall cover the primary and secondary fuel cost and limestone consumption cost (where applicable), and shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on ex-power plant basis, at the energy charge rate of the month (with fuel and limestone price adjustment). Total Energy charge payable to the generating company for a month shall be:

(Energy charge rate in Rs./kWh) x {Scheduled energy (ex-bus) for the month in kWh.}

- 58.5 Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae:

- (a) For coal based and lignite fired stations

$$ECR = \{ (GHR - SFC \times CVSF) \times LPPF / CVPF + SFC \times LPSFi + LC \times LPL \} \times 100 / (100 - AUX)$$

- (b) For gas and liquid fuel based stations

$$ECR = GHR \times LPPF \times 100 / \{ CVPF \times (100 - AUX) \}$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = (a) Weighted Average Gross calorific value of coal as received, in kcal per kg for coal based stations

- (a) Weighted Average Gross calorific value of primary fuel as received, in kcal per kg, per litre or per standard cubic meter, as applicable for lignite, gas and liquid fuel based stations.

- (b) In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio.

CVSF = Calorific value of secondary fuel, in kcal per ml.

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR = Gross station heat rate, in kcal per kWh.

LC = Normative limestone consumption in kg per kWh.

LPL = Weighted average landed price of limestone in Rupees per kg.

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month. (In case of blending of fuel from different sources, the weighted average landed price of primary fuel shall be arrived in proportion to blending ratio)

SFC = Normative Specific fuel oil consumption, in ml per kWh.

LPSFi = Weighted Average Landed Price of Secondary Fuel in Rs./ml during the month:

Provided that energy charge rate for a gas/liquid fuel based station shall be adjusted for open cycle operation based on certification of Member Secretary of respective Regional Power Committee for the open cycle operation during the month.

- 58.6 The generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., as per the forms prescribed from time to time:

Provided that the details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal and the weighted average GCV of the fuels as received shall also be provided separately, along with the bills of the respective month:

Provided further that copies of the bills and details of parameters of GCV and price of fuel, i.e., domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel, etc., details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal shall also be displayed on the website of the generating company. The details should be available on its website on monthly basis for a period of three months.

- 58.7 The landed cost of fuel for the month shall include price of fuel corresponding to the grade and quality of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail / road or any other means, and, for the purpose of computation of energy charge, and in case of coal/lignite shall be arrived at after considering normative transit and handling losses as specified in Regulation 53.8.
- 58.8 The landed fuel cost of primary fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months, and in the absence of landed costs for the three preceding months, latest procurement price of primary fuel and secondary fuel for the generating station, before the start of the tariff period for existing stations and immediately preceding three months in case of new generating stations shall be taken into account.

58.9 The landed price of limestone shall be taken based on procurement price of limestone for the generating station, inclusive of royalty, taxes and duties as applicable and transportation cost.

58.10 In case of part or full use of alternative source of fuel supply by coal based thermal generating stations other than as agreed by the generating company and beneficiaries in their power purchase agreement for supply of contracted power on account of shortage of fuel or optimization of economical operation through blending, the use of alternative source of fuel supply shall be permitted to generating station:

Provided that in such case, prior permission from beneficiaries shall not be a pre-condition, unless otherwise agreed specifically in the power purchase agreement:

Provided further that the weighted average price of use of alternative source of fuel shall not exceed 30% of base price of fuel computed as per Regulation 58.11:

Provided also that where the energy charge rate based on weighted average price of use of fuel including alternative source of fuel exceeds 30% of base energy charge rate as approved by the Commission for that year or energy charge rate based on weighted average price of use of fuel including alternative sources of fuel exceeds 20% of energy charge rate based on weighted average fuel price for the previous month, whichever is lower shall be considered and in that event, prior consultation with beneficiary shall be made not later than three days in advance.

58.11 Energy Charges, for the purpose of billing/Fuel Surcharge will be worked out station-wise based on weighted average rate for scheduled generation from the Units of each Station.

58.12 Fuel Price Adjustment:

Adjustment of Energy Charge Rate (ECR) [Fuel Price Adjustment] on account of variation in price or heat value of fuels shall be computed and charged as stipulated by the Commission from time to time.

59 Computation and Payment of Capacity Charges and Energy Charges for Hydro Generating Stations

59.1 The Annual Fixed Charges of a Hydro Generating Station shall be computed on annual basis, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and Energy Charge, which shall be payable by the beneficiaries in proportion to their respective share in the capacity of the generating station.

59.2 The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be:

$AFC \times 0.5 \times NDM / NDY \times (PAFM / NAPAF)$ (in Rupees);

Where;

AFC = Annual fixed cost specified for the year, in Rupees;

NAPAF = Normative plant availability factor in percentage;

NDM = Number of days in the month;

NDY = Number of days in the year;

PAFM = Plant availability factor achieved during the month, in Percentage.

59.3 The PAFM shall be computed in accordance with the following formula:

$$PAFM = 10000 \times \sum_{i=1}^N DC_i / \{ N \times IC \times (100 - AUX) \} \%$$

Where;

AUX = Normative auxiliary energy consumption in percentage;

DC_i = Declared capacity (in ex-bus MW) for the i^{th} day of the month which the station can deliver for at least three (3) hours; as certified by the Gujarat State Load Despatch Centre after the day is over.

IC = Installed capacity (in MW) of the complete generating station;

N = Number of days in the month.

59.4 The Energy Charge shall be payable by every beneficiary for the total energy supplied to the beneficiary during the calendar month on ex-power plant basis, at the computed Energy Charge rate. Total Energy Charge payable to the Generating Company for a month shall be:

(Energy Charge Rate in Rs. / kWh) x {Energy (ex-bus)} for the month in kWh

59.5 Energy Charge Rate (ECR) in Rupees per kWh on ex-power plant basis, for a Hydro Generating Station, shall be determined up to three decimal places based on the following formula:

$$ECR = AFC \times 0.5 \times 10 / \{ DE \times (100 - AUX) \};$$

Where;

DE = Annual Design Energy specified for the hydro generating station, in MWh, subject to the provision in Regulation 59.6 below.

59.6 In case actual total energy generated by a Hydro Generating Station during a year is less than the Design Energy for reasons beyond the control of the Generating Company, the following treatment shall be applied on a rolling basis:

- (i) in case the energy shortfall occurs within ten years from the date of commercial operation of a generating station, the ECR for the year following the year of energy shortfall shall be computed based on the formula specified in these Regulations with the modification that the DE for the year shall be considered as equal to the actual energy generated during the year of the shortfall, till the Energy Charge shortfall of the previous year has been made up, after which normal ECR shall be applicable;
- (ii) in case the energy shortfall occurs after ten years from the date of commercial operation of a generating station, the following shall apply:

Suppose the specified annual Design Energy (DE) for the station is DE MWh, and the actual energy generated during the relevant (first) and the following (second) financial years are A1 and A2 MWh, respectively, A1 being less than DE, then the Design Energy to be considered in the formula in these Regulations for calculating the ECR for the third financial year shall be moderated as $(A1 + A2 - DE)$ MWh, subject to a maximum of DE MWh and a minimum of A1 MWh;

- (iii) Actual energy generated (e.g., A1, A2) shall be arrived at by multiplying the net metered energy sent out from the station by $100 / (100 - AUX)$.

59.7 In case the Energy Charge Rate (ECR) for a hydro generating station, as computed in Regulation 59.5 above, exceeds ninety paise per kWh, and the actual saleable energy in a year exceeds $\{DE \times (100 - AUX) / 10000\}$ MWh, the Energy Charge for the energy in excess of the above shall be billed at ninety paise per kWh only:

Provided that in a year following a year in which the total energy generated was less than the design energy for reasons beyond the control of the Generating Company, the Energy Charge Rate shall be reduced to ninety paise per kWh after the energy charge shortfall of the previous year has been made up.

59.8 The Gujarat State Load Despatch Centre shall finalise the schedules for the hydro generating stations, in consultation with the beneficiaries, for optimal utilization of all the energy declared to be available, which shall be scheduled for all beneficiaries in proportion to their respective allocations in the generating station.

60 Payment of Incentive

Incentive to a thermal generating station or unit thereof shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled

generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) as specified in Regulation 53.2.

61 Demonstration of declared capacity

- 61.1 The Generating Company may be required to demonstrate the declared capacity of its generating station as and when asked by the Gujarat State Load Despatch Centre. In the event of the Generating Company failing to demonstrate the declared capacity, the capacity charges due to the Generating Company shall be reduced as a measure of penalty.
- 61.2 The quantum of penalty for the first mis-declaration for any duration/block in a day shall be the charges corresponding to two days' fixed charges. For the second mis-declaration, the penalty shall be equivalent to fixed charges for four days and for subsequent mis-declarations in the year, the penalty shall be multiplied in the geometrical progression.
- 61.3 The operating logbooks of the generating station shall be available for review by the Gujarat State Load Despatch Centre. These books shall keep record of machine operation and maintenance.

62 Billing and Payment of Charges

- 62.1 The Billing and Payment of Annual Fixed Charges, Energy Charges and Fuel Surcharge Adjustments shall be done on a monthly basis subject to adjustments at the end of the year.
- 62.2 The Billing and Payment of Capacity Charges and Energy Charges for Hydro Generating Stations shall be done on a monthly basis.

63 Reactive Energy Charges

- 63.1 A generating station shall inject/absorb the reactive energy into the grid as per the directions of State Load Despatch Centre. Such injection/absorption may be undertaken on the basis of machine capability and in accordance with the directions issued by SLDC. Reactive energy exchange, only if made as per the directions of State Load Despatch Centre, for the applicable duration (injection or absorption) shall be compensated to the generating station @ 10.00 paise/kVArh for FY 2016-17 escalated at 0.5 paise/kVArh annually in subsequent years of the Control Period, unless otherwise revised by Commission.

64 Sharing of CDM Benefits

- 64.1 The proceeds of carbon credits from approved Clean Development Mechanism (CDM) projects shall be shared between Generating Company and the beneficiaries concerned in the following manner, namely:
- 64.1.1 100% of the gross proceeds on account of CDM benefit to be retained by the project developer in the first year after the date of commercial operation of the generating station;
- 64.1.2 In the second year, the share of the beneficiaries shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, whereafter the proceeds shall be shared in equal proportion, by the Generating Company and the beneficiaries.

CHAPTER 5: INTRA-STATE TRANSMISSION

65 Applicability

65.1 The Regulations contained in this Chapter shall apply to determination of tariff for access and use of the intra-State transmission system in the State of Gujarat:

Provided that the Commission may deviate from the norms contained in this Part or stipulate alternative norms for particular cases, where it so deems appropriate, having regard to the circumstances of the case:

Provided further that the reasons for such deviation shall be recorded in writing.

65.2 The Commission shall be guided by the Regulations contained in this Chapter in specifying the rates, charges, terms and conditions for use of intervening transmission facilities pursuant to an application made in this regard by a Licensee under the proviso to Section 36 of the Act.

66 Components of tariff

66.1 The Annual Transmission Charges for each financial year of the Control Period shall provide for the recovery of the Aggregate Revenue Requirement of the Transmission Licensee for the respective financial year of the Control Period, as reduced by the amount of Non-Tariff Income, income from Other Business and short-term transmission charges of the previous year, as approved by the Commission:

Provided that in case of competitively awarded transmission system projects in pursuance of Section 63 of the Act and in accordance with guidelines for competitive bidding for transmission, the annual transmission charges shall be as per the annual Transmission Service Charges (TSC) quoted by such competitively awarded transmission projects.

66.2 The Annual Transmission Charges of the Transmission Licensee shall be determined by the Commission on the basis of an application for determination of Aggregate Revenue Requirement made by the Transmission Licensee in accordance with **Chapter 2** of these Regulations.

67 Capital Investment Plan

67.1 The Transmission Licensee shall submit a detailed capital investment plan, financing plan and physical targets for each year of the Control Period for meeting the requirement of load growth, improvement in quality of supply, reliability, metering, reduction in congestion, etc., to the Commission for approval, as a part of the Multi-Year Aggregate Revenue Requirement for the entire Control Period:

Provided that the Capital Investment Plan shall be submitted for each year of the Control Period:

Provided further that the Capital Investment Plan shall be accompanied by such information, particulars and documents as may be required including but not limited to the information such as number of bays, name, configuration and location of grid substations, substation capacity (MVA), transmission line length (ckt-km) showing the need for the proposed investments, alternatives considered, cost/benefit analysis and other aspects that may have a bearing on the transmission charges.

- 67.2 The Capital Investment Plan of the Transmission Licensee shall be consistent with the transmission system plan for the intra-State transmission system.

68 Norms for operation

Target availability for the transmission system shall be as under:

- (i) For full recovery of annual transmission charges:
 - (a) AC system : 98 per cent;
 - (b) HVDC bi-pole links and HVDC back-to-back stations : 95 per cent;
- (ii) For Incentive consideration:
 - (c) AC system : 98.5 per cent;
 - (d) HVDC bi-pole links and HVDC back-to-back stations : 96 per cent;

Note 1:

Recovery of annual transmission charges below the level of target availability shall be on pro rata basis. At zero availability, no transmission charges shall be payable.

Note 2:

The actual availability shall be calculated in accordance with the procedure provided in **Annexure-II** to these Regulations and shall be certified by the Gujarat State Load Despatch Centre.

Provided that for new HVDC stations, Target Availability shall be considered as 95% for first three years of operations for the purpose of incentive:

Provided further that no incentive shall be payable for availability beyond 99.75%:

Provided also that for AC system, two trippings per year shall be allowed, and after two trippings in a year, additional 12 hours outage shall be considered in addition to the actual outage:

Provided also that in case of outage of a transmission element affecting evacuation of power from a generating station, outage hour shall be multiplied by a factor of 2.

69 Calculation of Aggregate Revenue Requirement

69.1 Aggregate Revenue Requirement of a transmission licensee shall comprise the following components, viz.

- (a) Depreciation;
- (b) Interest and Finance Charges on Loan Capital;
- (c) Interest on working capital and deposits from Transmission System Users;
- (d) Operation and maintenance expenses;
- (e) Contribution to contingency reserves, if any;
- (f) Return on Equity (ROE);
- minus:
- (g) Non-Tariff Income;
- (h) Revenue from short-term transmission charges projected on the basis of latest audited figures; and
- (i) Income from Other Business, to the extent specified in these Regulations.

Provided that Depreciation, Interest and finance charges on Loan Capital, Interest on Working Capital and Return on Equity for the Transmission Licensee shall be allowed in accordance with the provisions specified in **Chapter 3** of these Regulations:

Provided further that prior period income/expenses shall be allowed by the Commission at the time of truing up based on audited accounts, on a case to case basis, subject to prudence check.

69.2 Operation and Maintenance expenses:

69.2.1 Existing Transmission Licensee:

Gujarat Electricity Transmission Company Ltd. (GETCO)

Table 15: O&M Expense norms in Rs. Lakh/Bay and Rs. Lakh/cktkm

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
O&M Expenses/Bay	7.60	8.04	8.50	8.98	9.50
O&M Expenses/ ckt km	0.64	0.68	0.72	0.76	0.81

Provided that the Transmission Licensee shall submit a certificate from the Chief Electrical Inspector for the number of bays and circuit kilometres of transmission line added during the year at the time of truing up.

69.2.2 For New Transmission Licensee:

For the New transmission licensees, the year-wise O&M norms shall be determined on case to case basis:

Provided that the same shall not be applicable to those new projects, which are awarded on a competitive bidding basis.

Explanation 1: The term “New Transmission Licensee” shall mean the transmission licensee(s) for which transmission licence is granted by the Commission after the date of effectiveness of these Regulations, and whose transmission project assets are commissioned after 31st March 2016.

Explanation 2: For the purpose of deriving normative O&M expenses under Regulation 69.2.1, ‘Bay’ shall mean a set of accessories that are required to connect an electrical equipment such as Transmission Line, Bus Section Breakers, Potential Transformers, Power Transformers, Capacitors and Transfer Breaker and the feeders emanating from the bus at Sub-station of Transmission Licensee. Further, the Bays referred herein shall include only the Bays at the Transmission substation and shall exclude any bays of the Generating Station switchyard whose maintenance is usually the responsibility of the Generating Company.

69.3 Contribution to contingency reserve:

69.3.1 The Transmission Licensee may make an appropriation to the Contingency Reserve of a sum not exceeding 0.5 per cent of the original cost of fixed assets at the beginning of the year, for each year, which shall be allowed in the calculation of aggregate revenue requirement:

Provided that where the amount of such Contingency Reserve exceeds five (5) per cent of the original cost of fixed assets, no such appropriation shall be allowed, which would have the effect of increasing the reserve beyond the said maximum:

Provided further that the amount so appropriated may be invested in securities authorised under the Indian Trusts Act, 1882 or any other security within a period of six months of the close of the financial year:

Provided also that if the amount so appropriated is invested in securities, then the actual interest income earned by the Transmission Licensee shall be included under the Non-Tariff income:

Provided also that if the amount so appropriated is not invested in securities, then the normative interest income, computed at the weighted average State

Bank Base Rate for the year, shall be included under the Non-Tariff income of the Transmission Licensee.

69.3.2 The Contingency Reserve shall not be drawn upon during the term of the licence except to meet such charges as may be approved by the Commission as being:

- (a) Expenses or loss of profits arising out of accidents, natural calamities or circumstances which the management could not have prevented;
- (b) Expenses on replacement or removal of plant or works other than expenses required for normal maintenance or renewal;
- (c) Compensation payable under any law for the time being in force and for which no other provision is made:

Provided that such drawal from Contingency Reserve shall be computed after making due adjustments for any other compensation that may have been received by the Licensee as part of an insurance cover and Government Grant, if any.

69.3.3 No diminution in the value of contingency reserve as mentioned above shall be allowed to be adjusted as a part of tariff.

70 Non-Tariff Income

70.1 The amount of Non-Tariff Income relating to the Transmission Business as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining annual transmission charges of the Transmission Licensee:

Provided that the Transmission Licensee shall submit full details of his forecast of Non-Tariff Income to the Commission along with its application for determination of Aggregate Revenue Requirement.

70.2 The indicative list of various heads to be considered for Non-Tariff Income shall be as under:

- a) Income from rent on land or buildings;
- b) Income from sale of scrap;
- c) Income from statutory investments;
- d) Income from interest on contingency reserve investment;
- e) Interest on advances to suppliers/contractors;
- f) Rental from staff quarters;
- g) Rental from contractors;
- h) Income from hire charges from contractors and others;
- i) Income from advertisements, etc.;

- j) Miscellaneous receipts like parallel operation charges, deferred income from grants, etc.;
- k) Excess found on physical verification;
- l) Interest on investments, fixed and call deposits and bank balances;
- m) Prior period income:

Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the regulated business of the Transmission Licensee shall not be included in Non-Tariff Income.

71 Income from Other Business

Where the Transmission Licensee is engaged in any Other Business, an amount equal to one-third of the revenues from such Other Business after deduction of all direct and indirect costs attributed to such Other Business shall be deducted from the Aggregate Revenue Requirement in calculating the annual transmission charges of the Transmission Licensee:

Provided that the Transmission Licensee shall follow a reasonable basis for allocation of all joint and common costs between the Transmission Business and the Other Business and shall submit the Allocation Statement, duly audited and certified by the Statutory Auditor, to the Commission along with his application for determination of tariff:

Provided further that where the sum total of the direct and indirect costs of such Other Business exceeds the revenues from such Other Business, no amount shall be allowed to be added to the Aggregate Revenue Requirement of the Transmission Licensee on account of such Other Business.

72 Determination of Transmission Charges

- 72.1 The Transmission charges for access to and use of the transmission system of the Transmission Licensee shall comprise of the following:
 - a) Transmission system access charges; and
 - b) Transmission charges.
- 72.2 The annual Transmission charges shall be determined by the Commission in such a way that the aggregate revenue requirement of the Transmission Licensee for the financial year as approved by the Commission is recovered.
- 72.3 The annual Transmission charges of the Transmission Licensee shall be determined by the Commission on the basis of an application made by the Transmission Licensee, for the determination of tariff, in accordance with **Chapter 2** of these Regulations.

73 Sharing of charges for intra-State Transmission Network

- 73.1 The Aggregate Revenue Requirement of the Transmission Licensee, as approved by the Commission, shall be shared by all long-term users and medium-term users of the transmission system on monthly basis in the ratio of their respective contracted transmission capacities to the total contracted transmission capacity, in accordance with the following formula:

$$ATC_n = (\text{Transmission ARR} \times CC_n \div SCC) \div 12$$

Where,

ATC_n = annual transmission charges payable by the nth long-term user or medium-term user of the transmission system;

Transmission ARR = Aggregate Revenue Requirement of the Transmission Licensee, determined in accordance with Regulation 69 of these Regulations;

CC_n = capacity contracted in MW by the nth long-term user or medium-term user of the transmission system;

SCC = sum of capacities contracted in MW by all long-term users and medium-term users of the transmission system:

Provided that the ATC_n shall be payable on monthly basis by each long-term user or medium-term user of the transmission system and shall be collected by the State Transmission Utility (STU).

- 73.2 The short-term users of the transmission system shall pay transmission charges on Rs/MW/day basis, in accordance with the following formula:

$$TC \text{ (Rs/MW/day)} = (\text{Transmission ARR} \div SCC) \div 365,$$

Where,

TC (Rs/MW/day) = transmission charges payable by the short-term user of the transmission system;

Transmission ARR = Aggregate Revenue Requirement of the Transmission Licensee, determined in accordance with Regulation 69 of these Regulations;

SCC = sum of capacities contracted in MW by all long-term users and medium-term users of the transmission system:

- 73.3 For short-term collective transactions through power exchanges, Transmission Charges shall be denominated in Rs/kWh terms, in accordance with the following formula:

$$TC \text{ (Rs/kWh)} = \text{Transmission ARR} \div \text{Total units wheeled},$$

Where,

TC (Rs/kWh) = Transmission Charges payable in the case of short-term collective transactions through power exchanges;

Transmission ARR = Aggregate Revenue Requirement of the Transmission Licensee, determined in accordance with Regulation 69 of these Regulations;

Total units wheeled = total energy units wheeled through the transmission system, which shall be equal to the total energy input into the intra-State transmission system during the financial year.

- 73.4 The revenue from short-term open access charges for each yearly period (t) of Control Period shall be taken to be same as that prevalent during the yearly period one year before the commencement of the Control Period. However, the adjustments due to variation in actual revenue from short-term open access charges shall be undertaken during annual truing up.
- 73.5 The consequential impact of any Government of India scheme for waiver/reduction of transmission charges for any entity/ies, on the transmission charges payable by the other entities, shall be addressed through separate Orders to be issued by the Commission from time to time.

74 Incentive

- 74.1 The Transmission Licensee shall be entitled to incentive for increase in annual availability beyond the target availability prescribed under Regulation 68.1(ii), in accordance with the following formula:

$$\text{Incentive} = \text{ATC} \times \frac{[\text{Annual availability achieved} - \text{Target Availability}]}{\text{Target Availability}}$$

Where;

ATC= Annual Transmission Charges determined by the Commission for the transmission system of the Transmission Licensee for the concerned year.

- 74.2 Incentive shall be shared by the long-term and medium-term customers in the ratio of their average allotted transmission capacity for the year.

75 Usage of Intra-State Transmission System

- 75.1 All the matters related to Open Access Transactions shall be dealt with in accordance with Gujarat Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2011 as applicable and as amended through Orders issued by the Commission from time to time.
- 75.2 The charges for intra-State transmission usage shall be shared among various TSUs as specified in these Regulations.

76 Transmission losses

The energy losses in the transmission system of the Transmission Licensee, as determined by the State Load Despatch Centre, shall be borne by the Transmission System Users in proportion to their usage of the intra-State transmission system.

CHAPTER 6: SLDC FEES AND CHARGES

77 Applicability

The Regulations contained in this Chapter shall apply to determination of fees and charges to be levied by the SLDC.

78 Capital Investment Plan

- 78.1 The SLDC shall submit a detailed capital investment plan, financing plan and physical targets for each year to the Commission for approval, as a part of the Multi-Year Aggregate Revenue Requirement for the entire Control Period.
- 78.2 The SLDC shall submit the Capital Investment Plan as specified in **Chapter 2** of these Regulations.

79 Levy and Collection of Charges from Generating Companies, Licensees and MTOA beneficiaries

- 79.1 All expenses incurred by the SLDC shall be accounted separately.
- 79.2 Expenses incurred by the SLDC in the discharge of its functions as specified in Section 32 of the Electricity Act shall be recovered from the Generating Companies, Licensees and MTOA beneficiaries through Charges.
- 79.3 The Charges to be recovered from Generating Companies, Licensees and MTOA beneficiaries shall be determined taking into account the following expenses:

- a) Operation & Maintenance expenses
- b) Depreciation
- c) Interest and finance charges
- d) Interest on working capital
- e) Return on Equity

minus

- f) Non-Tariff Income:

Provided that Depreciation, Interest and Finance Charges, Interest on working capital and Return on Equity for the SLDC shall be allowed in accordance with the provisions specified in **Chapter 3** of these Regulations:

Provided further that prior period income/expenses shall be allowed by the Commission at the time of truing up based on audited accounts, on a case to case basis, subject to prudence check.

- 79.4 Operation and Maintenance expenses

a) The Operation and Maintenance expenses including insurance shall be derived on the basis of the average of the actual Operation and Maintenance expenses for the three (3) years ending March 31, 2015, subject to prudence check by the Commission.

b) The average of such operation and maintenance expenses including insurance shall be considered as operation and maintenance expenses for the financial year ended March 31, 2014 and shall be escalated year on year at the escalation factor of 5.72% to arrive at operation and maintenance expenses for subsequent years up to FY 2020-21.

80 Non-Tariff Income

80.1 The amount of Non-Tariff Income relating to the SLDC as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining the Charges of the SLDC:

Provided that the SLDC shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission from time to time.

80.2 The indicative list of various heads that shall be considered under Non-Tariff Income is as under:

- a) Income from rent on land or buildings;
- b) Income from sale of scrap;
- c) Interest on advances to suppliers/contractors;
- d) Rental from staff quarters;
- e) Rental from contractors;
- f) Income from hire charges from contractors and others;
- g) Scheduling and System Operation Charges;
- h) Miscellaneous receipts;
- i) Excess found on physical verification;
- j) Interest on investments, fixed and call deposits and bank balances;
- k) Prior period income:

Provided that the interest/dividend earned from investments made out of Return on Equity of the SLDC shall not be included in Non-Tariff Income.

81 Determination of SLDC Fees and Charges

- 81.1 Upon the Commission being satisfied that all the information and clarification sought for by it have been produced and that sufficient opportunity has been afforded to all the parties concerned, the Commission shall pass appropriate orders on the estimated expenses and determine the Fees and Charges recoverable from the Generating Companies, the Licensees and MTOA beneficiaries.
- 81.2 The Fees and Charges so determined by the Commission shall be valid till the approval of next revision.
- 81.3 The SLDC Fees and Charges shall be determined by the Commission on the basis of application made by SLDC, for determination Fees and Charges, in accordance with **Chapter 2** of these Regulations.
- 81.4 Open access users of the Grid shall pay such scheduling and system operation Charges as may be stipulated by the Commission.

82 Billing and Collection of SLDC Charges

- 82.1 The SLDC shall furnish necessary monthly bills on the Generating Companies, Licensees and MTOA beneficiaries for each billing month within seven days after the last day of the preceding month, on the basis of the following formula:

SLDC Charges payable for a month = $(SC/12) * (AC_i/SAC_i)$

where,

SC = Approved SLDC Aggregate Revenue Requirement for the year;

AC_i = Actual Capacity of the respective Generating Companies / Licensees / MTOA beneficiaries for the month 'i';

SAC_i = Sum of Actual Capacity of the Generating Companies, Licensees and MTOA beneficiaries for the month 'i'.

- 82.3 The Generating Companies, the Licensees and MTOA beneficiaries shall make payment to the SLDC of the amounts due within fifteen (15) days of the date of receipt of the bill.
- 82.4 If the payment is not made within the due date, a penal interest at the rate of two hundred and fifty basis points above the State Bank Base Rate shall be payable on the unpaid amounts.
- 82.5 Generating Companies, the Licensee and MTOA beneficiaries shall arrange payment of the Charges on a priority basis over all other payments except statutory payments.

83 Application for Connection to Grid

- 83.1 Generating Companies, Licensees and other beneficiaries requiring access to the Grid shall submit an application to the SLDC in accordance with the Gujarat Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2011, as amended from time to time, along with Fees stipulated by the Commission in the yearly tariff orders.
- 83.2 The SLDC, after scrutinising the application and after being satisfied of the completeness and correctness of the information furnished in the application, shall register the application in SLDC records duly intimating the applicant regarding the acceptance of the same.

84 LDC Development Fund

The Commission may permit SLDC to create and maintain a separate development fund for such purposes and from such sources of income, as the Commission may consider appropriate, on a Petition filed by SLDC, once SLDC is formed as a separate independent Company.

CHAPTER 7: DISTRIBUTION WIRES BUSINESS

85 Applicability

The Regulations contained in this Chapter shall apply to the determination of tariff payable for usage of distribution wires of a Distribution Licensee by a Distribution System User.

86 Components of Aggregate Revenue Requirement for Distribution Wires Business

86.1 The Wheeling Charges for Distribution Wires Business of the Distribution Licensee shall provide for the recovery of the Aggregate Revenue Requirement, which shall comprise of the following:

- (a) Depreciation;
 - (b) Interest and Finance Charges on Loan Capital;
 - (c) Interest on working capital and deposits from Distribution System Users;
 - (d) Operation and maintenance expenses;
 - (e) Contribution to contingency reserves, if any;
 - (f) Return on Equity;
- minus:
- (g) Non-Tariff Income; and
 - (h) Income from Other Business, to the extent specified in these Regulations; and
 - (i) Receipts on account of additional surcharge on charges for wheeling:

Provided that Depreciation, Interest and finance charges on Loan Capital, Interest on Working Capital and Return on Equity for the Distribution Wires Business shall be allowed in accordance with the provisions specified in **Chapter 3** of these Regulations:

Provided further that prior period income/expenses shall be allowed by the Commission at the time of truing up based on audited accounts, on a case to case basis, subject to prudence check.

Provided also that the wheeling charges of the Distribution Licensee shall be determined by the Commission on the basis of an application for determination of tariff made by the Distribution Licensee in accordance with **Chapter 2** of these Regulations:

Provided also that the Wheeling Charges may be denominated in terms of Rupees/kWh, for the purpose of recovery from the Distribution System User, or any such denomination, as stipulated by the Commission from time to time.

86.2 Operation and Maintenance expenses:

- a) The Operation and Maintenance expenses shall be derived on the basis of the average of the actual Operation and Maintenance expenses for the three (3) years ending March 31, 2015, subject to prudence check by the Commission.
- b) The average of such operation and maintenance expenses shall be considered as operation and maintenance expenses for the financial year ended March 31, 2014 and shall be escalated year on year at the escalation factor of 5.72% to arrive at operation and maintenance expenses for subsequent years up to FY 2020-21:

Provided that in case the Distribution Licensee has been in operation for less than three (3) years as on the date of effectiveness of these Regulations, the O&M Expenses shall be determined on case to case basis.

86.3 Contribution to contingency reserves:

- 86.3.1 The Distribution Licensee may make an appropriation to the Contingency Reserve of a sum not exceeding 0.5 per cent of the original cost of fixed assets at the beginning of the year, for each year, which shall be allowed in the calculation of aggregate revenue requirement:

Provided that where the amount of such Contingency Reserve exceeds five (5) per cent of the original cost of fixed assets, no such appropriation shall be allowed, which would have the effect of increasing the reserve beyond the said maximum:

Provided further that the amount so appropriated may be invested in securities authorised under the Indian Trusts Act, 1882 or any other security within a period of six months of the close of the financial year:

Provided also that if the amount so appropriated is invested in securities, then the actual interest income earned by the Distribution Licensee shall be included under the Non-Tariff income:

Provided also that if the amount so appropriated is not invested in securities, then the normative interest income, computed at the weighted average State Bank Base Rate for the year, shall be included under the Non-Tariff income of the Distribution Licensee.

- 86.3.2 The Contingency Reserve shall not be drawn upon during the term of the licence except to meet such charges as may be approved by the Commission as being:

- (a) Expenses or loss of profits arising out of accidents, natural calamities or circumstances which the management could not have prevented;

- (b) Expenses on replacement or removal of plant or works other than expenses required for normal maintenance or renewal;
- (c) Compensation payable under any law for the time being in force and for which no other provision is made:

Provided that such drawal from Contingency Reserve shall be computed after making due adjustments for any other compensation that may have been received by the Licensee as part of an insurance cover and Government Grant, if any.

86.3.3 No diminution in the value of contingency reserve as mentioned above shall be allowed to be adjusted as a part of tariff.

87 Allocation Matrix

The Wheeling Charges of the Distribution Licensee shall be determined by the Commission on the basis of segregated accounts of Distribution Wires Business:

Provided that where the Distribution Licensee is not able to submit audited and certified separate accounts for Distribution Wires Business and Retail Supply Business, the following Allocation Matrix shall be applicable:

Table 16: Allocation matrix for segregation of expenses between Distribution Wires Business and Retail Supply Business

Particulars	Wires Business (%)	Retail Supply Business (%)
Power Purchase Expenses	0%	100%
Intra-State Transmission Charges	0%	100%
Employee Expenses	60%	40%
Administration & General Expenses	50%	50%
Repair & Maintenance Expenses	90%	10%
Depreciation	90%	10%
Interest on Long-term Loan Capital	90%	10%
Interest on Working Capital and on consumer security deposits	10%	90%
Bad Debts Written off	0%	100%
Income Tax	90%	10%
Contribution to contingency reserves, if any	100%	0%
Return on Equity	90%	10%
Non-Tariff Income	10%	90%

Provided further that the operation and maintenance expenses shall be allocated between the Distribution Wires Business and Retail Supply Business, by considering the above-specified percentages for employee expenses, administration and general expenses, and repair and maintenance expenses, as weights for determining the weighted average allocation percentage for operation and maintenance expenses:

Provided also that once the Commission notifies the Regulations for submission of Regulatory Accounts, the wheeling charges of the Distribution Licensee shall be determined by the Commission on the basis of segregated accounts of Distribution Wires Business.

88 Capital Investment Plan

88.1 The Distribution Licensee shall submit detailed capital investment plan, financing plan and physical targets for each year of the Control Period for meeting the requirement of load growth, reduction in distribution losses, improvement in quality of supply, reliability, etc., to the Commission for approval, as a part of the Multi-Year Aggregate Revenue Requirement for the entire Control Period.

88.2 The Distribution Licensee shall be required to ensure optimum investments to enhance efficiency, productivity and meet performance standards prescribed by the Commission.

89 Non-Tariff Income

89.1 The amount of Non-Tariff Income relating to the Distribution Wires Business as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining the wheeling charges of Distribution Wires Business of the Distribution Licensee:

Provided that the Distribution Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission along with its application for determination of wheeling charges.

89.2 The indicative list of various heads to be considered for Non-Tariff Income shall be as under:

- a) Income from rent of land or buildings;
- b) Income from sale of scrap;
- c) Income from statutory investments;
- d) Income from interest on contingency reserve investment;
- e) Interest on advances to suppliers/contractors;
- f) Rental from staff quarters;

- g) Rental from contractors;
- h) Income from hire charges from contractors and others;
- i) Income from advertisements, etc.;
- j) Miscellaneous receipts;
- k) Interest on advances to suppliers;
- l) Excess found on physical verification;
- m) Prior period income:

Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the Distribution Wires Business of the Distribution Licensee shall not be included in Non-Tariff Income.

90 Income from Other Business

Where the Distribution Licensee is engaged in any Other Business, an amount equal to one-third of the revenues from such Other Business after deduction of all direct and indirect costs attributed to such Other Business shall be deducted from the Aggregate Revenue Requirement in determining the wheeling charges of Distribution Wires Business of the Distribution Licensee:

Provided that the Distribution Licensee shall follow a reasonable basis for allocation of all joint and common costs between the Distribution Wires Business and the Other Business and shall submit the Allocation Statement to the Commission, duly audited and certified by the statutory auditors, along with his application for determination of wheeling charges:

Provided further that once the Commission notifies the Regulations for submission of Regulatory Accounts, the applications for tariff determination and truing up shall be based on the Regulatory Accounts:

Provided also that where the sum total of the direct and indirect costs of such Other Business exceeds the revenues from such Other Business, no amount shall be allowed to be added to the Aggregate Revenue Requirement of the Distribution Licensee on account of such Other Business.

91 Determination of Wheeling Charges

The Commission shall specify the Wheeling Charge of Distribution Wires Business of the Distribution Licensee in its Order passed under sub-section (3) of Section 64 of the Act:

Provided that the Wheeling Charges payable by a Distribution System User, other than the retail consumers getting electricity supply from the same Distribution Licensee, may comprise any combination of fixed/demand charges, and variable charges, as may be stipulated by the Commission in such Order:

Provided further that the revenue from Wheeling Charges paid by the Distribution System Users under the above proviso shall be used to reduce the Aggregate Revenue Requirement of the Wires Business to be recovered from the retail consumers of the concerned Distribution Licensee, in accordance with the Regulations in **Chapter 8**.

92 Wheeling Losses

The Distribution Licensee shall be allowed to recover, in kind, the approved level of wheeling losses arising from the operation of the distribution system:

Provided that the wheeling loss level for FY 2016-17 may be stipulated in the Tariff Order for FY 2016-17:

Provided further that the Commission may stipulate a trajectory for wheeling losses for the period from FY 2017-18 to FY 2020-21 in accordance with these Regulations, as part of the Order on the MYT Petition to be filed by the Distribution Licensee under Regulation 17.2(a):

Provided also that any variation between the actual level of wheeling losses and the approved level shall be dealt with, as part of the Truing Up of each year of the Control Period, in accordance with the mechanisms provided in these Regulations.

CHAPTER 8: RETAIL SUPPLY OF ELECTRICITY

93 Applicability

These Regulations shall apply to determination of tariff for retail supply of electricity by a Distribution Licensee to its consumers.

94 Components of Tariff

94.1 The tariff for retail supply by a Distribution Licensee shall provide for recovery of the Aggregate Revenue Requirement of the Distribution Licensee for the financial year, as approved by the Commission and comprising the following:

- (a) Cost of own power generation /power purchase expenses;
- (b) Transmission charges
- (c) SLDC Fees & Charges;
- (d) Depreciation;
- (e) Interest and Finance Charges;
- (f) Interest on working capital and on consumer security deposits;
- (g) Operation and Maintenance expenses;
- (h) Bad debts written off, if any;
- (i) Return on Equity;
- (j) Balance Aggregate Revenue Requirement for Distribution Wires Business, as determined under **Chapter 7** of these Regulations, after deducting income from Wheeling Charges payable by Distribution System Users other than the retail consumers getting electricity supply from the same Distribution Licensee;

minus:

- (k) Non-Tariff Income;
- (l) Income from Other Business, to the extent specified in these Regulations;
- (m) Receipts on account of cross-subsidy surcharge:

Provided that Depreciation, Interest and finance charges, Interest on Working Capital and Return on Equity for the Retail Supply Business shall be allowed in accordance with the provisions specified in **Chapter 3** of these Regulations:

Provided further that prior period income/expenses shall be allowed by the Commission at the time of truing up based on audited accounts, on a case to case basis, subject to prudence check:

Provided also that the receipt of revenue on account of cross-subsidy surcharge shall be considered only at the time of truing up exercise, based on actual receipts as per Audited Accounts.

- 94.2 The tariff for retail supply by a Distribution Licensee shall be determined by the Commission on the basis of segregated accounts of Retail Supply Business:

Provided that where the Distribution Licensee is not able to submit audited and certified separate accounts for Distribution Wires Business and Retail Supply Business, the Allocation Matrix as given in Table-16 shall be applicable:

Provided further that the operation and maintenance expenses shall be allocated between the Distribution Wires Business and Retail Supply Business, by considering the percentages specified in the Allocation Matrix for employee expenses, administration and general expenses, and repair and maintenance expenses, as weights for determining the weighted average allocation percentage for operation and maintenance expenses:

Provided also that once the Commission notifies the Regulations for submission of Regulatory Accounts, the retail supply tariff of the Distribution Licensee shall be determined by the Commission on the basis of segregated accounts of Retail Supply Business.

- 94.3 The tariff for retail supply by the Distribution Licensee shall be determined by the Commission on the basis of an application for determination of tariff made by the Distribution Licensee in accordance with **Chapter 2** of these Regulations.

- 94.4 The Distribution Licensee shall be allowed to offer a rebate to the consumers on tariff and charges determined by the Commission:

Provided that the Distribution licensee shall submit details of such rebates to the Commission every quarter, in the manner and format, as stipulated by the Commission from time to time:

Provided further that the impact of such rebates given by the Distribution licensee shall be borne entirely by the Distribution Licensee and impact of such rebate will not be allowed to be passed through to the consumers, in any form:

Provided also that such rebates shall not be offered selectively to any consumer/s, and shall have to be offered to the entire consumer category/sub-category/consumption slab in a non-discriminatory manner.

- 94.5 Cost of power generation/power purchase:

94.5.1 The Distribution Licensee shall be allowed to recover the cost of power generated by the Generation Business or purchased from approved sources for supply to consumers based on the power procurement plan of the Distribution Licensee, approved by the Commission.

94.6 Transmission Charges:

94.6.1 The Distribution Licensee shall be allowed to recover transmission charges payable for access to and use of the intra-State transmission system in accordance with the tariff approved by the Commission under **Chapter 5** of these Regulations.

94.7 SLDC Fees & Charges:

94.7.1 The Distribution Licensee shall be allowed to recover SLDC Fees and Charges payable to SLDC in accordance with the tariff approved by the Commission under **Chapter 6** of these Regulations.

94.8 Operation and Maintenance expenses:

- a) The Operation and Maintenance expenses shall be derived on the basis of the average of the actual Operation and Maintenance expenses for the three (3) years ending March 31, 2015, subject to prudence check by the Commission.

The average of such operation and maintenance expenses shall be considered as operation and maintenance expenses for the financial year ended March 31, 2014 and shall be escalated year on year at the escalation factor of 5.72% to arrive at operation and maintenance expenses for subsequent years up to FY 2020-21.

Provided that in case, the Distribution Licensee has been in operation for less than three (3) years as on the date of effectiveness of these Regulations, the O&M Expenses shall be determined on case to case basis.

94.9 Bad debts written off:

94.9.1 The Commission may allow bad debts written off as a pass through in the Aggregate Revenue Requirement, based on the trend of write off of bad debts in the previous years, subject to prudence check:

Provided that the Commission shall true up the bad debts written off in the Aggregate Revenue Requirement, based on the actual write off of bad debts excluding DPC waived off, if any, during the year, subject to prudence check:

Provided further that if subsequent to the write off of a particular bad debt, revenue is realised from such bad debt, the same shall be included as an uncontrollable item under the Non-Tariff Income of the year in which such revenue is realised.

95 Capital Investment Plan

- 95.1 The Distribution Licensee shall submit a detailed capital investment plan, financing plan and physical targets for each year of the Control Period for meeting the requirement of load growth, reduction in distribution losses, increase in collection efficiency, metering, consumer services, etc., to the Commission for approval, as a part of the Multi-Year Aggregate Revenue Requirement for the entire Control Period.
- 95.2 The Distribution Licensee shall be required to ensure optimum investments to enhance efficiency, productivity and meet performance standards prescribed by the Commission.
- 95.3 The Distribution licensee shall submit the Capital Investment Plan as specified in **Chapter 2** of these Regulations.

96 Sales forecast

- 96.1 The Distribution Licensee shall submit a forecast of the expected sales of electricity to each tariff category/sub-category and to each tariff slab within such tariff category/sub-category to the Commission for approval along with the Multi-Year Aggregate Revenue Requirement for the entire Control Period, as specified in these Regulations.
- 96.2 The sales forecast shall be based on past data and reasonable assumptions regarding the future:
- Provided that where the Commission has stipulated a methodology for forecasting sales to any particular tariff category, the Distribution Licensee shall incorporate such methodology in developing the sales forecast for such tariff category.

97 Non-Tariff Income

- 97.1 The amount of Non-Tariff Income relating to the Retail Supply of electricity as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in calculating the tariff for retail supply of electricity by the Distribution Licensee:
- Provided that the Distribution Licensee shall submit full details of his forecast of Non-Tariff Income to the Commission along with his application for determination of tariff.

97.2 The indicative list of various heads to be considered for Non-Tariff Income shall be as under:

- a) Income from rent of land or buildings;
- b) Income from sale of scrap;
- c) Income from statutory investments;
- d) Income from interest on contingency reserve investment;
- e) Interest on advances to suppliers/contractors;
- f) Rental from staff quarters;
- g) Rental from contractors;
- h) Income from hire charges from contractors and others;
- i) Income from advertisements, etc.;
- j) Meter/metering equipment/service line rentals;
- k) Service charges;
- l) Customer charges;
- m) Recovery for theft and pilferage of energy;
- n) Prompt Payment Rebate
- o) Miscellaneous receipts;
- p) Prior period income:

Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the Retail Supply Business of the Distribution Licensee shall not be included in Non-Tariff Income:

Provided further that any income earned by a Distribution Licensee by sale of power to other Distribution Licensees or to consumers as per Section 49 of the Act using the existing power purchase agreements or bulk supply capacity allocated to the Distribution Licensee's area of supply shall be reduced from the Aggregate Revenue Requirement of the Distribution Licensee for the purpose of determination of tariff.

98 Income from Other Business

Where the Distribution Licensee is engaged in any Other Business, an amount equal to one-third of the revenues from such Other Business after deduction of all direct and indirect costs attributed to such Other Business shall be deducted from the Aggregate Revenue Requirement in calculating the tariff from retail supply of electricity by the Distribution Licensee:

Provided that the Distribution Licensee shall follow a reasonable basis for allocation of all joint and common costs between the Distribution Business and

the Other Business and shall submit the Allocation Statement, duly audited and certified by the statutory auditors, to the Commission along with his application for determination of tariff;

Provided further that once the Commission notifies the Regulations for submission of Regulatory Accounts, the applications for tariff determination and truing up shall be based on the Regulatory Accounts;

Provided also that where the sum total of the direct and indirect costs of such Other Business exceeds the revenues from such Other Business, no amount shall be allowed to be added to the Aggregate Revenue Requirement of the Distribution Licensee on account of such Other Business.

99 Receipts on account of cross-subsidy surcharge

The cross-subsidy surcharge received by the Distribution Licensee in accordance with the Gujarat Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2011, as amended from time to time, at the rate approved by the Commission shall be deducted from the Aggregate Revenue Requirement in calculating the tariff for retail supply of electricity by such Distribution Licensee, at the time of truing up.

100 Receipts on account of Additional Surcharge

The Additional surcharge received by the Distribution Licensee in accordance with the Gujarat Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2011, as amended from time to time, at the rate approved by the Commission shall be deducted from the Aggregate Revenue Requirement in calculating the tariff for retail supply of electricity by such Distribution Licensee, at the time of truing up.

101 Distribution Losses

The Distribution Licensee shall recover the approved level of distribution losses arising from the Retail Supply of electricity:

Provided that the distribution loss level for FY 2016-17 may be stipulated in the Tariff Order for FY 2016-17:

Provided further that the Commission may stipulate a trajectory for distribution losses for the period from FY 2017-18 to FY 2020-21 in accordance with these Regulations, as part of the Order on the MYT Petition to be filed by the Distribution Licensee under Regulation 17.2 (a):

Provided also that any variation between the actual level of distribution losses and the approved level shall be dealt with, as part of the Truing up exercise.

102 Determination of Tariff

- 102.1 The Commission may categorize consumers on the basis of their load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.
- 102.2 The retail supply tariff for different consumer categories shall be determined on the basis of the average cost of supply, computed as the ratio of the aggregate revenue requirement of the Distribution Licensee for the financial year calculated in accordance with Regulation 94.1 to the total sales of the Distribution Licensee for the respective financial year.
- 102.3 The Commission shall endeavour to reduce gradually the cross-subsidy between consumer categories with respect to the average cost of supply in accordance with the provisions of the Act.
- 102.4 While determining the tariff the Commission may also keep in view the cost of supply at different voltage levels and the need to minimise tariff shock to any category of consumers.

Annexure I
DEPRECIATION SCHEDULE

Description of Assets		Depreciation (Straight line) (Salvage Value 10%) (%)
A.	Land under full ownership	--
B.	Land held under lease	
a)	for investment in the land	3.34%
b)	for cost of clearing the site	3.34%
c)	Land for reservoir in case of Hydro generating station	3.34%
C.	Assets Purchased New:	
a.	Plant and machinery in generating stations including plant foundations	
	i) Hydro-electric	5.28%
	ii) Steam electric NHRB & Waste Heat Recovery Boilers/Plants	5.28%
	iii) Diesel-electric and gas plant	5.28%
b.	Cooling towers and circulating water systems	5.28%
c.	Hydraulic works forming part of Hydro generating stations	
	i) Dams, Spillways, weirs, canals, reinforced concrete Flumes and siphons	5.28%
	ii) Reinforced concrete pipelines and surge tanks, steel pipelines, sluice gates, steel surge (tanks) hydraulic control valves and other hydraulic works	5.28%
d.	Building & civil engineering works	
	i) Offices & showrooms	3.34%
	ii) Containing thermo-electric generating plant	3.34%

Description of Assets			Depreciation (Straight line) (Salvage Value 10%) (%)
	iii)	Containing hydro-electric generating plant	3.34%
	iv)	Temporary erections such as wooden structures	100%
	v)	Roads other than kutchha roads	3.34%
	vi)	Others	3.34%
e.		Transformers, transformer (Kiosk) sub-station equipment & other fixed apparatus (including plant foundations)	
	i)	Transformers (including foundations) having a rating of 100 kilo volt amperes and over	5.28%
	ii)	Others	5.28%
f.		Switchgear including cable connections	5.28%
g.		Lightning arrestors	
	i)	Station type	5.28%
	ii)	Pole type	5.28%
	iii)	Synchronous condensor	5.28%
h.		Batteries	5.28%
	i)	Underground Cable including joint boxes and disconnected boxes	5.28%
	ii)	Cable duct system	5.28%
i.		Overhead lines including cable supports:	
	i)	Lines on fabricated steel operating at nominal voltages higher than 66 kV	5.28%
	ii)	Lines on steel supports operating at nominal voltages higher than 13.2 kilovolts but not exceeding 66 kilovolts	5.28%
	iii)	Lines on steel or reinforced concrete supports	5.28%

Description of Assets			Depreciation (Straight line) (Salvage Value 10%) (%)
	iv)	Lines on treated wood supports	5.28%
j.		Meters	5.28%
k.		Self-propelled vehicles	9.50%
l.		Air conditioning plants:	
	i)	Static	5.28%
	ii)	Portable	9.50%
m.			
	i)	Office furniture and fittings	6.33%
	ii)	Office equipments	6.33%
	iii)	Internal wiring including fittings and apparatus	6.33%
	iv)	Street light fittings	5.28%
n.		Apparatus let on hire	
	i)	Other than motors	9.50%
	ii)	Motors	6.33%
o.		Communication equipment:	
	i)	Radio and high frequency carrier system	6.33%
	ii)	Telephone lines and telephones	6.33%
p.		I.T. equipments including software	15.00%
q.		Any other assets not covered above	5.28%

Annexure II

Procedure for calculation of Transmission System Availability for a month

1. Transmission system availability factor for a calendar month (TAFM) shall be calculated by the respective transmission licensee, and certified by the SLDC, separately for each AC and HVDC transmission system. For the purpose of calculation of TAFM:
 - i) AC transmission lines: Each circuit of AC transmission line shall be considered as one element.
 - ii) Inter-Connecting Transformers (ICTs): Each ICT bank (three single phase transformer together) shall form one element.
 - iii) Static VAR Compensator (SVC): SVC along with SVC transformer shall form one element. However, 50% credit to inductive and 50% to capacitive rating shall be given.
 - iv) Bus Reactors/Switchable line reactors: Each Bus Reactors/Switchable line reactors shall be considered as one element.
 - v) HVDC Bi-pole links: Each pole of HVDC link along with associated equipment at both ends shall be considered as one element.
 - vi) HVDC back-to-back station: Each block of HVDC back-to-back station shall be considered as one element. If associated AC line (necessary for transfer of inter-regional power through HVDC back-to-back station) is not available, the HVDC back-to-back station block shall also be considered as unavailable.
2. The Availability of AC and HVDC portion of Transmission system shall be calculated as under:

% TAFM for AC system

$$= \frac{o \times AV_o + p \times AV_p + q \times AV_q + r \times AV_r}{o + p + q + r} \times 100$$

% TAFM for HVDC system

$$= \frac{s \times AV_s + t \times AV_t}{S + t} \times 100$$

Where

o = Total number of AC lines.

AV_o	=	Availability of o number of AC lines.
p	=	Total number of bus reactors/switchable line reactors
AV_p	=	Availability of p number of bus reactors/switchable line reactors
q	=	Total number of ICTs.
AV_q	=	Availability of q number of ICTs.
r	=	Total number of SVCs.
AV_r	=	Availability of r number of SVCs.
s	=	Total number of HVDC poles
AV_s	=	Availability of s number of HVDC poles
t	=	Total number of HVDC back-to-back station blocks
AV_t	=	Availability of t number of HVDC back-to-back station blocks

3. The weightage factor for each category of transmission elements shall be as under:

- (a) For each circuit of AC line – Surge Impedance Loading for Uncompensated line (SIL) multiplied by ckt-km.

SIL rating for various voltage level and conductor configuration is given in **Appendix-I**. However, for the voltage levels and/or conductor configurations not listed in Appendix-I, appropriate SIL based on technical considerations may be used for availability calculation under intimation to long-term transmission customers/DICs.

For compensated AC line, Surge Impedance Loading (SIL) shall be as certified by the Regional Power Committee (RPC) Secretariat considering the compensation on the line.

For shunt compensated line the reduced value of SIL shall be taken in accordance with the location of the reactor. Similarly, in case of the lines with series compensation the higher SIL shall be taken as per the percentage of compensation.

- (b) For each HVDC pole- The rated MW capacity x ckt-km
(c) For each ICT bank – The rated MVA capacity
(d) For SVC- The rated MVAR capacity (inductive and capacitive)
(e) For Bus Reactor/switchable line reactors – The rated MVAR capacity.
(f) For HVDC back-to-back station connecting two Regional grids- Rated MW capacity of each block.
4. The availability for each category of transmission elements shall be calculated based on the weightage factor, total hours under consideration and non-available

hours for each element of that category. The formulae for calculation of Availability of each category of the transmission elements are as per **Appendix-II**.

5. The transmission elements under outage due to following reasons shall be deemed to be available:
 - i. Shut down availed for maintenance or construction of elements of another transmission scheme. If the other transmission scheme belongs to the transmission licensee, the SLDC may restrict the deemed availability period to that considered reasonable by him for the work involved.
 - ii. Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the directions of SLDC.
6. Outage time of transmission elements for the following contingencies shall be excluded from the total time of the element under period of consideration.
 - i. Outage of elements due to acts of God and force majeure events beyond the control of the transmission licensee. However, onus of satisfying the SLDC that element outage was due to aforesaid events and not due to design failure shall rest with the transmission licensee. A reasonable restoration time for the element shall be considered and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Circuits restored through ERS (Emergency Restoration System) shall be considered as available.
 - ii. Outage caused by grid incident/disturbance not attributable to the transmission licensee, e.g. faults in substation or bays owned by other agency causing outage of the transmission licensee's elements, and tripping of lines, ICTs, HVDC, etc. due to grid disturbance. However, if the element is not restored on receipt of direction from SLDC while normalizing the system following grid incident/disturbance within reasonable time, the element will be considered not available for the period of outage after issuance of SLDC's direction for restoration.
7. The format for issuance of Availability Certificate by SLDC is given in **Appendix-III**.

Appendix-I

SURGE IMPEDANCE LOADING (SIL) OF AC LINES

Sl. No.	Line voltage (kV)	Conductor Configuration	SIL (MW)
1	765	Quad Bersimis	2250
2	400	Quad Bersimis	691
3	400	Twin Moose	515
4	400	Twin AAAC	425
5	400	Quad Zebra	647
6	400	Quad AAAC	646
7	400	Tripple Snowbird	605
8	400	ACKC(500/26)	556
9	400	Twin ACAR	557
10	220	Twin Zebra	175
11	220	Single Zebra	132
12	132	Single Panther	50
13	66	Single Dog	10

Appendix-II

FORMULAE FOR CALCULATION OF AVAILABILITY OF EACH CATEGORY OF TRANSMISSION ELEMENTS

$$AV_o(\text{Availability of } o \text{ no. of AC lines}) = \frac{\sum_{i=1}^o \frac{W_i(T_i - T_{NAi})}{T_i}}{\sum_{i=1}^o W_i}$$

$$AV_s(\text{Availability of } s \text{ no. of HVDC pole}) = \frac{\sum_{j=1}^s \frac{W_j(T_j - T_{NAj})}{T_j}}{\sum_{j=1}^s W_j}$$

$$AV_q(\text{Availability of } q \text{ no. of ICTs}) = \frac{\sum_{K=1}^q \frac{W_k(T_k - T_{NAk})}{T_k}}{\sum_{k=1}^q W_k}$$

$$AV_r(\text{Availability of } r \text{ no. of SVCs}) = \frac{\left[\sum_{l=1}^r \frac{0.5 W_{Il} (T_{Il} - T_{NAIl})}{T_{Il}} + \sum_{l=1}^r \frac{0.5 W_{Cl} (T_{Cl} - T_{ACl})}{T_{Cl}} \right]}{\left[\sum_{l=1}^r 0.5 W_{Il} + \sum_{l=1}^r 0.5 W_{Cl} \right]}$$

$$AV_p(\text{Availability of } p \text{ no. of Switched Bus reactors}) = \frac{\sum_{m=1}^p \frac{W_m(T_m - T_{NA m})}{T_m}}{\sum_{m=1}^p W_m}$$

$$AV_t(\text{Availability of } t \text{ no. of HVDC Back-to-back Blocks}) = \frac{\sum_{n=1}^t \frac{W_n(T_n - T_{NAn})}{T_n}}{\sum_{n=1}^t W_n}$$

Where W_i = Weightage factor for i^{th} transmission line

W_j	=	Weightage factor for j^{th} HVDC pole
W_k	=	Weightage factor for k^{th} ICT
$W_{il} \& W_{cl}$	=	Weightage factors for inductive & capacitive operation of l^{th} SVC
W_m	=	Weightage factor for m^{th} bus reactor
W_n	=	Weightage factor for n^{th} HVDC back to back block.

$T_i, T_j, T_k, T_{il}, T_{cl}, -$ $T_m \& T_n$	The total hours of i^{th} AC line, j^{th} HVDC pole, k^{th} ICT, l^{th} SVC (Inductive Operation), l^{th} SVC (Capacitive Operation), m^{th} Switched Bus Reactor & n^{th} HVDC back-to-back block during the period under consideration (excluding time period for outages not attributable to transmission licensee for reasons given in Para 6 of the procedure)
$T_{NAi}, T_{NAj}, T_{NAk} -$ $T_{NAil}, T_{NAcl}, T_{NAm},$ $T_{NAn},$ l^{th}	The non-availability hours (excluding the time period for outages not attributable to transmission licensee taken as deemed availability as per Para 5 of the procedure) for i^{th} AC line, j^{th} HVDC pole, k^{th} ICT, l^{th} SVC (Inductive Operation), l^{th} SVC (Capacitive Operation), m^{th} Switched Bus Reactor and n^{th} HVDC back-to-back block.

Appendix-III

FORMAT FOR ISSUANCE OF AVAILABILITY CERTIFICATE BY SLDC

On the letterhead of SLDC

Ref:

Date:

To,

.....

Sub: Transmission System Availability Certificate for GETCO for _____

Ref:...

With reference to the above, SLDC has received the computation of transmission system availability with interruption details of GETCO network for the year _____, computed in accordance with the GERC MYT Regulations, 2016.

The overall Transmission System Availability of the GETCO network for the year _____, computed in accordance with Annexure II of the GERC MYT Regulations, 2016, and after considering the provisions of Regulation 68.1 of the GERC MYT Regulations, 2016, is ____%.

Authorised Signatory

Copy to:_____