

DRAFT REGULATIONS

GUJARAT ELECTRICITY REGULATORY COMMISSION (GERC) (MULTI-YEAR TARIFF) REGULATIONS 2010

Notification No. ... of 2010

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 64, Section 65 and Section 86 of the Electricity Act, 2003 (36 of 2003) and all other powers enabling 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 on that behalf, the Gujarat Electricity Regulatory Commission (GERC) 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, 2010.
- 1.2 These Regulations shall come into force on the date of their publication in the Official Gazette.
- 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, 2011 and onwards;
- (b) These Regulations shall be applicable to all existing and future Generating Companies, Transmission Licensees and Distribution Licensees and their successors, if any;
- (c) These Regulations supersede the “Gujarat Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005” and “Gujarat Electricity Regulatory Commission (Multi-Year Tariff Framework) Regulations, 2007”.

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 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 further that once the Commission notifies the Regulations for submission of Regulatory Accounts, the applications for tariff determination and true-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) “**Allocation Statement**” means for each financial year, a statement in respect of each of the separate businesses of the 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 this Regulation, 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.

- (4) **“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 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 shall be sum of the generating capacities allocated to the long-term transmission customer from the generating stations and the contracted power, if any;

- (5) **“Applicant”** means a Generating Company or Transmission Licensee 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 Distribution Licensee whose tariff is the subject of a review by the Commission either on suo-motu basis or on a petition filed by any interested or affected person or as part of a truing-up exercise;
- (6) **“Aggregate Revenue Requirement”** means the requirement of the Transmission Licensee or Distribution Licensee for recovery, through tariffs, of allowable expenses and return on equity pertaining to its Licenced Business, in accordance with these Regulations;
- (7) **“Area of Supply”** means the area within which a distribution licensee is authorised by his 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, means the quantum of energy consumed by auxiliary equipment of 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 for the purpose of these Regulations, auxiliary energy consumption for a generating station shall include transformer losses within the generating station:

Provided further that colony consumption of a generating station shall not be included as part of the auxiliary consumption for the purpose of these Regulations.

- (10) **“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 in MW, 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 time blocks in the given period;

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

IC = Installed Capacity of the generating station in MW;

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

- (11) **“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;
- (12) **“Bank Rate”** shall mean the Bank Rate declared by the Reserve Bank of India from time to time;
- (13) **“Beneficiary”** in relation to a generating station means the person purchasing electricity generated at such a generating station whose tariff is determined under these Regulations;
- (14) **“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;
- (15) **“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;
- (16) **“Business Plan”** shall comprise of elements as specified in Regulation 7 of these Regulations;
- (17) **“Commission”** means the Gujarat Electricity Regulatory Commission;
- (18) **“Contracted Capacity”** means the capacity in MW which the Transmission Licensee has agreed to carry or which the Transmission Licensee is required to carry as per allocation from Generating Stations or the long-term agreement between the importing and exporting utility;
- (19) **“Control Period”** means the period of five years from April 1, 2011 to March 31, 2016, and for every block of five years thereafter, for submission of forecast in accordance with Chapter-2 of these Regulations;

- (20) **“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;
- (21) **“Day”** means the 24 hour period starting at 0000 hour;
- (22) **“Date of Commercial Operation”** means:
- a. in relation to a 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, from 0000 hour of which scheduling process as per the Indian Electricity Grid Code (IEGC) is fully implemented;
 - b. in relation to the generating station, the date of commercial operation means the date of commercial operation of the last unit of the generating station;
 - c. in relation to a unit of a hydro generating station, the date declared by the Generating Company from 0000 hour of which, after notice to the beneficiaries, scheduling process in accordance with the Indian Electricity Grid Code 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, after notice to the beneficiaries;

Note:

- i. In case the 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, provided that 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.
- ii. In case of purely run-of-river hydro generating station, if the unit or the generating station is declared under commercial operation during lean inflows period when the water is not sufficient for such demonstration, it shall be mandatory for such hydro generating station or unit to demonstrate peaking capability equivalent to installed capacity as and when sufficient inflow is available.

- d. in relation to the transmission system, the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful charging and trial operation:

Provided that the date shall be the first day of a calendar month and transmission charge for the element shall be payable and its availability shall be accounted for, from that date:

Provided further that in case an element of the transmission system is ready for regular service but is prevented from providing such service for reasons not attributable to the transmission licensee, its suppliers or contractors, the Commission may approve the date of commercial operation prior to the element coming into regular service.

(23) **“Declared Capacity”** means

- a. for a thermal generating station, the capability of the generating station to deliver ex-bus electricity in MW declared by such generating station in relation to any period of the day or whole of the day, duly taking into account the availability of fuel:

Provided that in case of a gas turbine generating station or a combined cycle generating station, the generating station shall declare the capacity for units and modules on gas fuel and liquid fuel separately, and these shall be scheduled separately. Total declared capacity and total scheduled generation for the generating station shall be the sum of the declared capacity and scheduled generation for gas fuel and liquid fuel for the purpose of computation of availability and Plant Load Factor, respectively;

- b. for hydro power generating stations, the ex-bus capacity in MW expected to be available from the generating station for the ith 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, taking into account the availability of water;

(24) **“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;

(25) **“Distribution Business”** means the business of operating and maintaining a distribution system for supplying electricity in the area of supply of the Distribution Licensee;

- (26) **“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;
- (27) **“Expected Revenue from Tariff and Charges”** means the revenue estimated to accrue to the Generating Company or Transmission Licensee or Distribution Licensee from the Regulated Business at the prevailing tariffs;
- (28) **“Existing Generating Unit/Station”** means a generating unit/station declared under commercial operation prior to the date of effectiveness of these Regulations;
- (29) **“Existing Project”** means a project declared under commercial operation prior to the date of effectiveness of these Regulations;
- (30) **“Event”** means an unscheduled or unplanned occurrence in the intra-State transmission system including faults, incidents and breakdowns;
- (31) **“Force Majeure Event”** means, with respect to any party, any event or circumstance, 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 prevented, and without limiting the generality of the foregoing, would include the following events:
- a. acts of God, including but not limited to lightning, storm, action of the elements, earthquakes, flood, torrential rains, drought and natural disaster;
 - b. strikes, lockouts, go-slow, bandh or other industrial disturbances not instigated by any party;
 - c. acts of public enemy, wars (declared or undeclared), blockades, insurrections, riots, revolution, sabotage, vandalism and civil disturbance;
 - d. unavoidable accident, including but not limited to fire, explosion, radioactive contamination and toxic dangerous chemical contamination;
 - e. any shutdown or interruption of the grid, which is required or directed by the State or Central Government or by the Commission or the Gujarat State Load Despatch Centre;
- (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 (ii) supply of electricity to any Licensee in accordance with the Act and the rules and Regulations made thereunder and,

- (iii) subject to the Regulations made under sub-section (2) of section 42 of the Act, supply of electricity to any consumer;
- (33) **“Gross Calorific Value”** in relation to a thermal generating station means the heat produced in kcal 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;
- (34) **“Gross Station Heat Rate”** means the heat energy input in kcal required to generate one kWh of electrical energy at generator terminals;
- (35) **“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;
- (36) **‘Infirm power’** means electricity injected into the grid prior to the commercial operation of a Unit or Block of the generating station;
- (37) **“Installed Capacity”** means the summation of the name plate capacities of all the units of a generating station or the capacity of the generating station (reckoned at the generator terminals) as approved by the Commission from time to time;
- (38) **“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;
- (39) **“Mid-term Review”** shall be undertaken in accordance with clause (c) of Regulation 5.2 of these Regulations;
- (40) **“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;
- (41) **“Normative Annual Plant Availability Factor”** or **“NAPAF”** in relation to a hydel generating station means the availability factor specified in Regulation 18 for hydro generating station;
- (42) **“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;

(43) **“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;

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, or part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads;

(44) **“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 upto the cut-off date as admitted by the Commission;

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

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

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

Where;

N = number of time blocks in the given period;

SG = Scheduled Generation in MW for the ith time block in such period;

IC = Installed Capacity of the generating station in MW;

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

(47) **“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;
- (48) **“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;
- (49) **“Retail Supply Business”** means the business of sale of electricity by a Distribution Licensee to his consumers in accordance with the terms of his licence;
- (50) **“Run-of-river generating station”** means a hydro generating station, which does not have upstream pondage;
- (51) **“Run-of-river generating station with pondage”** means a hydro generating station with sufficient pondage for meeting the diurnal variation of power demand;
- (52) **“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;
- (53) **“Scheduled Generation” or ‘SG’** 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;
- (54) **“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;
- (55) **“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;
- (56) **“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 Transmission Open Access Regulations;
- (57) **“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;

(58) **“Useful life”** in relation to a unit of a generating station, transmission system and distribution 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: 35 years;
- iv. AC and DC sub-station: 25 years;
- v. Transmission line: 35 years;
- vi. Distribution line: 35 years;

(59) **“Year”** means a financial year;

(60) The words and expressions used in these Regulations and not defined herein but defined in the Act shall have the meaning assigned to them under the Act.

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) Intra-State Wheeling of electricity;
- (iv) 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 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 further that the Commission, while determining tariff upon an application made to it under this Regulation, 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 shall also determine the rate at which the distribution licensees can allocate power for their trading business, i.e., sale of power to other 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.
- 3.3 In accordance with the principles laid out in these Regulations, the Commission shall determine separate Aggregate Revenue Requirement (ARR) for:
 - (a) Distribution Wires Business; and
 - (b) Retail Supply Business.
- 3.4 The Distribution Licensee shall file Petition containing separate details for determination of ARR 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 separate Petitions for determination of ARR for Distribution Wires Business and Retail Supply Business shall be based on the Regulatory Accounts.
- 3.5 The ARR determined for the Distribution Wires Business will be the basis for the fixation of the wheeling tariff/charges.
- 3.6 The ARR determined for Retail Supply Business will be the basis for the fixation of the Retail Supply Tariff/Charges for retail sale of electricity.
- 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 (Open Access in Intra-State Transmission and Distribution) Regulations, 2005 and as amended 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 (Open

Access in Intra-State Transmission and Distribution) Regulations, 2005 and as amended 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.

CHAPTER 2: GENERAL PRINCIPLES

4 Multi-Year Tariff framework

- 4.1 The Commission shall determine 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, 2011:

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

- 4.2 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, Distribution Wires Business and Retail Supply Business:

- (i) A detailed Business Plan based on the principles specified in these Regulations, for each year of the Control Period, shall be submitted by the applicant for the Commission's approval:

Provided that the performance parameters, whose trajectories have been specified in the Regulations, shall form the basis of projection of these performance parameters in the Business Plan;

Provided that a mid-term review of the Business Plan may be sought by the Generating Company, Transmission Licensee and Distribution Licensee through an application filed three (3) months prior to the filing of Petition for truing-up for the second year of the Control Period and tariff determination for the fourth year of the Control Period.

- (ii) Based on the approved Business Plan, the applicant shall submit the forecast of Aggregate Revenue Requirement (ARR) for the entire Control Period and expected revenue from existing tariffs for the first year of the Control Period, and the Commission shall determine ARR for the entire Control Period and the tariff for the first year of the Control Period for the Generating Company, Transmission Licensee, Distribution Wires Business and Retail Supply Business;
- (iii) Truing-up of previous year's expenses and revenue 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), shall be undertaken by the Commission:

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 arising out of controllable factors shall be as specified by the Commission in these Regulations;
- (vi) Annual determination of tariff for Generating Company, Transmission Licensee, 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.

5 Accounting statement and filing under MYT

- 5.1 The filing under MYT by the Generating Company, Transmission Licensee, and Distribution Licensee for the Distribution Wires Business and Retail Supply Business, shall be done as per the timelines specified in these Regulations and in compliance with the principles for determination of ARR as specified in these Regulations, in such form as may be prescribed by the Commission from time to time.
- 5.2 The filing for the first Control Period under these Regulations shall be as under:
 - a) MYT Petition shall comprise of:
 - i. Truing-up for FY 2009-10;
 - ii. Annual Performance Review for FY 2010-11;
 - iii. Multi-year Aggregate Revenue Requirement for the entire Control Period with year-wise details;
 - iv. Revenue from the sale of power at existing tariffs and charges and projected revenue gap, for the first year of the first Control Period under these Regulations, viz., FY 2011-12;
 - v. Application for determination of tariff for FY 2011-12.
 - b) From the first year of the Control Period and onwards, the Petition shall comprise of:
 - i. Truing-up requirement of the previous year;
 - 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 ARR approved in the MYT Order and truing-up requirement for previous year;
 - iv. Application for determination of tariff for the ensuing year.
- c) After mid-term review, if any, the Petition shall comprise of:
- i. Truing-up requirement of the previous year;
 - ii. Modification of the ARR 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 ARR approved in the MYT Order and truing-up requirement for previous year;
 - v. Application for determination of tariff for the ensuing year.

- 5.3 The Generating Company, Transmission Licensee, 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 10:

Provided that in case complete accounting segregation has not been done between the Wires Business and Supply Business, the ARR of the Distribution Licensee shall be apportioned between Wires Business and Retail Supply Business in accordance with the allocation matrix specified in Chapter-6 of these Regulations.

- 5.4 In case of a vertically integrated business, the Utility will be required to file separate applications for determination of ARR and tariff for Generation Business, Transmission Business, Wires Business and Retail Supply Business:

Provided that for the distribution business, the Distribution Licensee shall file Petitions as per Regulation 3.4 of these Regulations:

Provided further that in case complete accounting segregation has not been done between the various Businesses, the Utility will have to do so within one year of notification of these Regulations. Till such time there is a complete segregation of audited accounts between Generation, Transmission, Wheeling and Supply Businesses, the application for determination ARR and tariff and truing-up for each Business shall be supported by an Allocation Statement that contains the apportionment of costs and revenues to that Business. The Allocation Statement shall also contain the methodology that has been used for the apportionment.

6 Applicability

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

7 Business Plan

- 7.1 The Generating Company, Transmission licensee, and Distribution Licensee for Distribution Wires Business and Retail Supply Business, shall file a Business Plan/Petition by 10th December 2010, for the Control Period of five (5) financial years from 1st April 2011 to 31st March 2016, which shall comprise but not be limited to 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:

Provided that a mid-term review of the Business Plan may be sought by the Generating Company, Transmission Licensee and Distribution Licensee through an application filed three (3) months prior to the filing of Petition for true-up for the second year of the Control Period and tariff determination for the fourth year of the Control Period.

- 7.2 The capital investment plan shall show separately, on-going projects that will spill over into the year under review, and new projects (along with justification) that will commence in the year under review but may be completed within or beyond the tariff period. The Commission shall consider and approve the capital investment plan for which the Generating Company, Transmission Licensee, and Distribution Licensee for the Distribution Wires Business and Retail Supply Business, may be required to provide relevant technical and commercial details.
- 7.3 The Distribution Licensee shall project the power purchase requirement after considering the effect of target set for Energy Efficiency (EE) and Demand Side Management (DSM) schemes:
- 7.4 The Generating Company, Transmission Licensee, and Distribution Licensee for the Distribution Wires Business and Retail Supply Business, shall get the Business Plan approved by the Commission.

8 Multi-Year Tariff Application

- 8.1 The applicant shall submit the forecast of Aggregate Revenue Requirement for the entire Control Period and tariff proposal for the first year of the Control Period, in such manner, within such time limit thereof 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.

- 8.2 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.
- 8.3 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 generated by each Unit/Station for the 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 the ensuing financial year within the Control Period;
 - (c) In the case of a Distribution Licensee, estimates of quantum of electricity supplied to consumers and wheeled on behalf of Distribution System Users for the ensuing financial year within the Control Period;
 - (d) Prevailing tariffs as on the date of making the application.
- 8.4 Based on the forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges, the Generating Company, Transmission Licensee, 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.
- 8.5 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.
- 8.6 On receipt of application, the Commission shall either:
 - (a) issue an Order approving the ARR for the entire Control Period and the tariff for the first 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.

9 Specific trajectory for certain variables

- 9.1 While approving the Business Plan/MYT Petition, the Commission shall stipulate a trajectory for the variables, which shall include, but not be limited to Operation & Maintenance expenses, target generating station availability, target plant load factor, station heat rate, auxiliary consumption, secondary oil consumption, wires availability, distribution losses and collection efficiency:

Provided that the Generating Company, Transmission Licensee, Distribution Wires Business and Retail Supply Business may seek a review of the trajectory at the time of mid-term review of Business Plan.

10 Truing-up

- 10.1 Where the Aggregate Revenue Requirement and expected revenue from tariff and charges of a Generating Company or Transmission Licensee or Distribution Licensee is covered under a Multi-Year Tariff framework, such Generating Company or Transmission Licensee or Distribution Licensee, as the case may be, shall be subject to truing-up of expenses and revenue during the Control Period in accordance with these Regulations.

- 10.2 The Generating Company or Transmission Licensee 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 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.

- 10.3 The scope of the truing-up shall be a comparison of the performance of the Generating Company or Transmission Licensee 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 including pass-through of impact of uncontrollable factors;

- (b) Review of compliance with directives issued by the Commission from time to time;
- (c) Other relevant details, if any.

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

10.5 Upon completion of the truing-up under Regulation 10.4 above, the Commission shall attribute any variations or expected variations in performance for variables specified under Regulation 11.1 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 11.1 below, shall not be reviewed by the Commission during the Control Period and shall be attributed entirely to controllable factors:

Provided however, that where the applicant or any interested or affected party believes, for any variable not specified under Regulation 11 below that there is a material variation or expected variation in performance for any financial year on account of uncontrollable factors, such applicant or interested or affected party may apply to the Commission for inclusion of such variable at the Commission's discretion, under Regulation 10.4 above for such financial year.

10.6 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 Distribution Licensee on account of controllable factors, and the amount of such gains or such losses that may be shared in accordance with Regulation 13 of these Regulations;
- (b) Components of approved cost pertaining to the uncontrollable factors, which were not recovered during the previous year, shall be pass through as per Regulation 12 of these Regulations;
- (c) Tariff determined for the ensuing year.

11 Controllable and uncontrollable factors

11.1 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 FCA/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 shall be attributable to controllable factors:

Provided further that where any consumer or category of consumers within the area of supply of the applicant is eligible for open access under sub-section (2) of Section 42 of the Act, 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) Variation in market interest rates;
- (f) Taxes and Statutory levies;
- (g) Taxes on Income.

11.2 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, including bad debts;
- (d) Variations in performance parameters;

- (e) Variations in working capital requirements;
- (f) Failure to meet the standards specified in the Standards of Performance Regulations, except where exempted in accordance with those Regulations;
- (g) Variations in labour productivity;
- (h) Variation in operation & maintenance expenses;
- (i) Variation in Wires Availability.

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

- 12.1 The approved aggregate gain or loss to the Generating Company or Transmission Licensee 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 Distribution Licensee over such period as may be specified in the Order of the Commission passed under these Regulations.
- 12.2 The Generating Company or Transmission Licensee 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.
- 12.3 Nothing contained in this Regulation 12 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.

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

- 13.1 The approved aggregate gain to the Generating Company or Transmission Licensee 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 10.6;
 - (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 Distribution Licensee.

- 13.2 The approved aggregate loss to the Generating Company or Transmission Licensee 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 10.6; 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 Distribution Licensee.

14 Annual Determination of Tariff

- 14.1 The proceedings to be held by the Commission for determination of tariff shall be in accordance with the GERC (Conduct of Business) Regulations, 2005, as amended from time to time.
- 14.2 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 any interested or affected Party, to determine the tariff, including terms and conditions thereof, of any Generating Company or Transmission Licensee 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.

15 Determination of Generation Tariff

- 15.1 Existing generating station:
- 15.1.1 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.
- 15.1.2 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 in accordance with **Chapter-4** of these Regulations:

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.

15.2 New generating stations:

- 15.2.1 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, except if such power purchase agreement has been exempted from requiring such approval in accordance with **Chapter-4** of these Regulations.

15.3 Own generating stations:

- 15.3.1 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.
- 15.3.2 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 true-up shall be based on the Regulatory Accounts.

- 15.4 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.
- 15.5 Notwithstanding anything contained in this Regulation 15, the Commission shall adopt the tariff for supply of electricity by a Generating Company to a Distribution Licensee 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 to satisfy itself that the guidelines issued by the Central Government have been duly followed.

16 Determination of Tariff for Transmission, Distribution Wires Business and Retail Supply Business

- 16.1 The Commission shall determine tariff for Transmission, Distribution Wires Business and Retail Supply Business based on an application made by the Licensee in accordance with the procedure contained in this Regulation 16.
- 16.2 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) Distribution Wires Business, in accordance with the terms and conditions contained in **Chapter-6** of these Regulations; and
 - (c) Retail Supply Business, in accordance with the terms and conditions contained in **Chapter-7** of these Regulations.

17 Filing Procedure

- 17.1 The applicant shall provide, based on the approved Business Plan, 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 pursuant to the terms of his licence, 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 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.

- 17.2 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.

- 17.3 The application made shall be supported by affidavit of the person acquainted with the facts stated in the application.
- 17.4 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.
- 17.5 The applicant shall post the complete application alongwith the public notices in English and Gujarati and a brief summary of application in Gujarati on its own website till final disposal of the application.
- 17.6 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.
- 17.7 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.
- 17.8 The applicant shall file his comments on the suggestions and objections, if any, received in response within the time limit specified in Gujarat Electricity Regulatory Commission (Conduct of Business) Regulations, 2004, as amended from time to time.
- 17.9 The applicant shall file their Petition for approval of truing-up of previous year and tariff for the ensuing financial year by 30th November of the previous financial year:

Provided that the MYT Petition for the first Control Period under these Regulations, i.e., FY 2011-12 to FY 2015-16 shall be filed along-with the Business Plan.

18 Tariff Order

- 18.1 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;
 - (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.

- 18.2 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.

19 Adherence to Tariff Order

- 19.1 No tariff or part of any tariff may be ordinarily amended, more frequently than once in any Financial year, except FPPPA based on FPPPA formulae approved by the Commission from time to time.
- 19.2 The Commission, may, after satisfying itself for reasons to be recorded in writing, allow for the revision of tariff.
- 19.3 If any Generating Company or Transmission Licensee 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 Distribution Licensee.
- 19.4 The Transmission Licensee or Distribution Licensee 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.

20 Annual determination of tariff

- 20.1 The Commission shall determine the tariff of a Generating Company or Transmission Licensee or 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 including the incentive available for the Generating Company or Transmission Licensee or Distribution Licensee and expected revenue from tariff and charges for such financial year, including modifications approved at the time of mid-term review, if any; and
- (b) Approved gains and losses to be passed through in tariffs, following the truing-up of previous year.

21 Issue of Orders and Practice Directions

- 21.1 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.
- 21.2 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.

22 Power to remove difficulties

- 22.1 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 Distribution Licensee to do or undertake such things which appear to be necessary or expedient for the purpose of removing the difficulties.

23 Power of Relaxation

- 23.1 The Commission may in public interest and for reasons to be recorded in writing, relax any of the provisions of these Regulations.

24 Interpretation

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

25 Saving of Inherent Powers of the Commission

- 25.1 Nothing contained in these Regulations shall limit or otherwise affect the inherent powers of the Commission from adopting a procedure, which is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of the matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient to depart from the procedure specified in these Regulations.

26 Subsidy Mechanism

- 26.1 With effect from the first day of April 2011, if the State Government requires the grant of 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 this Regulation:

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 this Regulation and the tariff fixed by the Commission shall be applicable from the date of issue of orders by the Commission in this regard.

27 Inquiry and Investigation

27.1 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.

28 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 3: FINANCIAL PRINCIPLES

29 Debt-equity ratio

29.1 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 after 1st April 2011, shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as loan. Where actual equity employed is less than 30%, the actual equity shall be considered:

Provided that in case of existing projects, the approved debt:equity ratio shall be used for tariff determination. However, any expansion project shall be governed as per this Regulation.

30 Capital Cost and capital structure

30.1 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 risk variation on the loan during construction upto 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 this Regulation; and
- (c) additional capital expenditure determined under Regulation 31:

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.

30.2 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.

30.3 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 the 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 or Transmission Licensee or Distribution Licensee.

- 30.4 The actual capital expenditure on Commercial Operation Date (COD) for the original scope of work based on audited accounts of the Company limited to original cost may be considered subject to the prudence check by the Commission.
- 30.5 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.
- 30.6 The capital cost may include capitalised initial spares:
- (a) upto 2.5% of original capital cost in case of coal based/lignite fired generating stations;
 - (b) upto 4.0% of original capital cost in case of gas turbine/combined cycle generating stations;
 - (c) upto 1.5% of original capital cost in case of hydro-generating stations; and
 - (d) upto 1.5% of original capital cost in case of Transmission Licensee and Distribution Licensee.
- 30.7 Scrutiny of the cost estimates by the Commission shall consist of ascertaining the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology, and such other matters for determination of tariff.
- 30.8 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 and Distribution Licensee. 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.
- 30.9 Any expenditure on replacement, renovation and modernization or extension of life of old fixed assets, as applicable to Generating Company, Transmission Licensee 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:
- Net Value of Replaced Assets = OCFA – AD – 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.

31 Additional capitalisation

31.1 The following capital expenditure, actually incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and upto the cut-off date may be admitted by the Commission, subject to the prudence check:

- (a) Due to Un-discharged liabilities within the original scope of work;
- (b) On works within the original scope of work, deferred for execution;
- (c) To meet award of arbitration and satisfaction of final and unappealable order or decree of a court arising out of original scope of works;
- (d) On account of change in law;
- (e) On procurement of initial spares included in the original project costs subject to the ceiling norm laid down in Regulation 30.6;
- (f) Any additional works/services, which have become necessary for efficient and successful operation of a generating station or a transmission system or a distribution system but not included in the original capital cost:

Provided that original scope of work along with estimates of expenditure shall be submitted along as a part of Business Plan:

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating Unit/Station or transmission system or distribution system.

31.2 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.

32 Consumer contribution, Deposit Work and Grant

32.1 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 RGGVY, APDRP, etc;
- (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.

33 Return on Equity

33.1 Return on equity shall be computed on the paid up equity capital determined in accordance with Regulation 29 relating to the Generating Company or Transmission Licensee or Distribution Licensee as the case may be and shall be allowed at the rate of 14% for conventional Generating Companies, including hydro generation stations above 25 MW, Transmission Licensee, and Distribution Licensee:

Provided that for Generating Company, Transmission Licensee 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 true-up for the Generating Company, Transmission Licensee and Distribution Licensee, Return on Equity shall be allowed on pro-rata basis based on documentary evidence provided for the assets put to use during the year.

- 33.2 The premium raised by the Generating Company or the Transmission Licensee 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.
- 33.3 Equity invested in foreign currency shall be converted to rupee currency based on the exchange rate prevailing on the date(s) it is subscribed.

34 Interest and finance charges on loan capital

34.1 Interest and finance charges on loan capital including the amount of equity above 30% of allowed capital cost treated as loan, shall be computed on the outstanding loans, duly taking into account the schedule of repayment, as per the terms and conditions of relevant agreements of loan, bond or debenture:

Provided that interest and finance charges of renegotiated loan agreements shall not be considered, if they result in higher charges:

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

- 34.2 Interest charges on security deposits, if any, with a Generating Company or the Transmission Licensee or Distribution Licensee shall be considered at the rate specified by the Commission from time to time.
- 34.3 The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefit shall be passed on to the beneficiaries.

- 34.4 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 Distribution Licensee or Generating Company, as the case may be.
- 34.5 In case any moratorium period is availed of by the Generating Company or Transmission Licensee or Distribution licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.
- 34.6 The Generating Company or the Transmission Licensee or Distribution Licensee shall not make any profit on account of swapping of loan and interest on loan, and profit if any, shall be passed on to the beneficiaries.

35 Depreciation

- 35.1 The value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission.
- 35.2 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 the Generating Company or Transmission Licensee 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;
 - (c) The salvage value of the asset shall be considered at 10 per cent of the allowable capital cost and depreciation shall be allowed upto a maximum of 90 per cent of the allowable capital cost of the asset.
- 35.3 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.

35.4 In case of the existing projects, the balance depreciable value as on 1st April 2011, shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31st March 2011, from the gross asset value of the assets.

35.5 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.

36 Interest on Working Capital

36.1 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 escalated at 6% from the date of commercial operation; plus
- (vi) Receivables for sale of electricity equivalent to two (2) months 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;

minus

- (vii) Payables for fuel (including oil and secondary fuel oil) to the extent of one (1) month of the cost of fuel calculated on target availability.

(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 escalated at 6% from the date of commercial operation; plus
- (v) Receivables equivalent to two (2) months 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;

minus

- (vi) Payables for fuel (including liquid fuel stock) to the extent of one (1) month of the cost of fuel calculated on target availability.

(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 escalated at 6% from the date of commercial operation; and
- (iii) Receivables equivalent to one and half months 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.

(d) Interest on working capital shall be allowed at a rate equal to the State Bank Advance Rate (SBAR) as on 1st April of the financial year in which the Petition is filed.

36.2 Transmission:

- (a) 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 escalated at 6% from the date of commercial operation; plus
 - (iii) Receivables equivalent to two months of transmission charges calculated on target availability level; minus
 - (iv) Amount, if any, held as security deposits from Transmission System Users.
- (b) Interest shall be allowed at a rate equal to the State Bank Advance Rate (SBAR) as on 1stApril of the financial year in which the Petition is filed.
- (c) Interest shall be allowed on the amount held as security deposit from Transmission System Users at the Bank Rate as on 1stApril of the financial year in which the Petition is filed..

36.3 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 escalated at 6% from the date of commercial operation; plus
 - (iii) Receivables equivalent to two (2) months 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 subsection (1) of Section 47 of the Act from Distribution System Users except the security deposits held in the form of Bank Guarantees.
- (b) Interest shall be allowed at a rate equal to the State Bank Advance Rate (SBAR) as on 1stApril of the financial year in which the Petition is filed.

36.4 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 escalated at 6% from the date of commercial operation; plus
 - (iii) Receivables equivalent to two (2) months of the expected revenue from sale of electricity at the prevailing tariffs; minus

- (iv) 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; minus
- (v) One month equivalent of cost of power purchased, based on the annual power procurement plan:

Provided that in case of power procurement from own generating stations, no amount shall be allowed towards payables, 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.

- (b) Interest shall be allowed at a rate equal to the State Bank Advance Rate (SBAR) as on 1st April of the financial year in which the Petition is filed.
- (c) Interest shall be allowed on the amount held as security deposit held in cash from Distribution System Users at the Bank Rate as on 1st April of the financial year in which the Petition is filed.

37 Tax on income

- 37.1 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 on permissible return as allowed by the Commission relating to business of electricity, as per latest Audited Accounts available for the applicant, subject to prudence check.
- 37.2 Variation between Income Tax actually paid and approved, if any, on the income stream of the regulated business of Generating Companies, Transmission Licensees and Distribution Licensees shall be reimbursed to/recovered from the Generating Companies, Transmission Licensees 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.
- 37.3 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 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 constitute 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.

CHAPTER 4: GENERATION

38 Applicability

38.1 The Regulations specified in this Chapter 4 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.

38.2 The Commission shall be guided by the terms and conditions 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.

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

39 Petition for determination of generation tariff

- 39.1 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.
- 39.2 Tariff in respect of a Generating Station under these Regulations may be determined Stage-wise, Unit-wise or for the whole Generating Station. 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.
- 39.3 Where the tariff is being determined for Stage or 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 Units, as the case may be:
- Provided that the Generating 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.
- 39.4 A Generating Company may file a Petition for determination of provisional tariff in advance of the anticipated Date of Commercial Operation of Unit or Stage or Generating Station as a whole, as the case may be, based on the capital expenditure actually incurred upto the date of making the Petition or a date prior to making of the Petition, duly audited and certified by the statutory auditors and the provisional tariff shall be charged from the date of commercial operation of such Unit or Stage or Generating Station, as the case may be.
- 39.5 A Generating Company shall file a fresh Petition in accordance with these Regulations, for determination of final tariff based on actual capital expenditure incurred upto the date of commercial operation of the Generating Station duly certified by the statutory auditors based on Annual Audited Accounts.
- 39.6 Any difference in provisional tariff and the final tariff determined by the Commission and not attributable to the Generating Company may be adjusted at the time of determination of final tariff for the following year as directed by the Commission.
- 39.7 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.

40 Components of Tariff

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

41 Annual Fixed Charges

41.1 Components of Annual Fixed charges:

The Annual Fixed Charges shall comprise of the following elements:

- (a) Depreciation;
- (b) Operation & Maintenance Expenses;
- (c) Return on Equity;
- (d) Interest and Finance Charges on Loan Capital;
- (e) Interest on Working Capital;

Less:

- (f) 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.

42 Capital cost

42.1 Capital Cost for a project shall include:

- a. The expenditure incurred including interest during construction and financing charges, as admitted by the Commission after prudence check;
- b. Capitalised initial spares subject to the ceiling rates; and
- c. Additional capital expenditure determined under these Regulations:

Provided that the cost of the common assets forming part of the project, should be considered based on suitable allocation, duly audited and certified by the statutory auditors, and such allocated cost shall form part of the capital cost:

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

42.2 The Capital Cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that where the Power Purchase Agreement entered into between the Generating Company and the Distribution Licensee provides a ceiling of actual expenditure, the original cost of project shall not exceed such ceiling for the purpose of these Regulations:

Provided further 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:

Provided further that in case of the existing Generating Stations, the capital cost of the project as admitted by the Commission prior to the date of effectiveness of these Regulations and the additional capital expenditure projected to be incurred and capitalised for the respective year of the second Control Period, as may be admitted by the Commission, shall form the basis for determination of tariff:

Provided further that in case the site of a Hydro Generating Station is awarded to a developer (not being a State controlled or owned company) by the State Government by following a transparent process of bidding, any expenditure incurred or committed to be incurred including the premium payable to the State Government by the project developer for getting the project site allotted, shall not be included in the capital cost.

42.3 **Additional Capitalisation:** The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and upto the cut off date may be allowed by the Commission for inclusion in the original cost of the project, subject to prudence check:

- (i) Deferred/un-discharged liabilities;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in Regulation 30.6;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) On account of change in law.

Provided that the details of works included in the original scope of work along with estimates of expenditure, un-discharged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

42.4 The capital expenditure of the following nature actually incurred after the cut-off date may be allowed by the Commission for inclusion in the original cost of project, subject to prudence check:

- (i) Liabilities to meet award of arbitration and for compliance of an un-appealable order or decree of a court;
- (ii) On account of change in law;
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work; and
- (iv) In case of hydro generating station, 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) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work, which has become necessary for successful and efficient plant operation.

42.5 Any expenditure on other items/assets, not being generating assets, including, but not limited to, normal tools and tackles, personal computers, furniture, air-conditioners, voltage stabilizers, refrigerators, fans, coolers, heat-convectors, etc., bought after the cut-off date may be capitalised, with the prior approval of the Commission.

42.6 Renovation & Modernisation:

- (i) 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:

Provided that in case of coal-based/lignite fired thermal generating station, the Generating Company, may, in its discretion, avail of a 'special allowance' in accordance with the norms specified in Clause (iv), 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 considered and the applicable operational norms shall not be relaxed but the special allowance shall be included in the Annual Fixed Cost:

Provided also 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.

- (ii) Where the Generating Company, as the case may be, 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.
- (iii) 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 and corresponding equity contribution, already recovered from the original project cost, shall form the basis for determination of tariff.
- (iv) A Generating Company, on opting for the alternative in the first proviso to clause (i) of this Regulation, for a coal-based/lignite fired thermal generating station, shall be allowed special allowance @ Rs. 5 lakh/MW/year in FY 2011-12 and thereafter escalated @ 5.72 % every year during the second 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 1.4.2011, this allowance shall be admissible from FY 2011-12.

43 Sale of Infirm Power

- 43.1 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.

44 Non-Tariff Income

- 44.1 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 Cost 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.

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 delayed or deferred payment on bills;
- f) Interest on advances to suppliers/contractors;
- g) Rental from staff quarters;
- h) Rental from contractors;
- i) Income from hire charges from contractors and others;
- j) Income from advertisements, etc.

45 Norms of operation for Thermal Generating Stations

The norms of operation as given hereunder shall apply:

45.1 Target Availability for recovery of full Capacity (Fixed) charges and Target Plant Load Factor for Incentive for thermal generating stations:

- (a) Target Availability for full recovery of annual fixed charges shall be 85 per cent for all thermal generating stations, except those covered under clause (b);
- (b) Target Availability for full recovery of annual fixed charges for the following stations shall be:

Table 1: Target Availability for GSECL generating stations

Station Name	Stage	Units (No. x Cap., MW)	Target Availability (%)
GSECL Stations			
Ukai TPS	I	2x120	74
	II	2x210	74
	III	1x210	74
Gandhinagar TPS	I	2x120	80
	II	2x210	80

Station Name	Stage	Units (No. x Cap., MW)	Target Availability (%)
Sikka TPS	I	1x120	75
	II	1x120	75
Kutch Lignite	I	2x70	78
	II	1x75	78
	III	1x75	75
Dhuvaran Oil	I	2x110	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.

- (c) Target Plant Load Factor for incentive shall be 85 per cent.

45.2 Gross Station Heat Rate – For existing Generating Stations:

- a) Existing Coal-based Thermal Generating Stations, other than those covered under clauses (b) and (c) below:

200/210/250 MW sets	500 MW and above sets
2450 kcal/kWh	2425 kcal/kWh

Note 1:

In respect of 500 MW and above Units, where the boiler feed pumps are electrically operated, the gross Station Heat Rate shall be 40 kcal/kWh lower than the gross Station Heat Rate indicated above.

Note 2:

For generating stations having combination of 200/210/250 MW sets and 500 MW and above sets, the normative gross Station Heat Rate shall be the weighted average station heat rate.

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

Table 2: Station Heat Rate for GSECL Stations for the second Control Period

Stations	Units (No.x Cap.MW)	Design Heat Rate	(in kcal/kWh)				
			FY 2011- 12	FY 2012- 13	FY 2013- 14	FY2014- 15	FY 2015- 16
Ukai TPS	2x120	2411	2670	2670	2670	2670	2670
	3x210	2404	2600	2500	2500	2500	2500

Stations	Units (No.x Cap.MW)	Design Heat Rate	FY 2011-12	FY 2012-13	FY 2013-14	FY2014-15	FY 2015-16
Gandhinagar TPS	2x120	2382	2800	2800	2800	2800	2800
	2x210	2319	2550	2500	2500	2500	2500
	1x210	2319	2460	2460	2460	2460	2460
Wanakbori TPS	6x210	2396	2550	2500	2500	2500	2500
	1x210	2252	2460	2460	2460	2460	2460
Sikka TPS	2x120	2410	2700	2620	2620	2620	2620
Kutch Lignite	2x70	3245	3300	3300	3300	3300	3300
	1x75	NA	3300	3300	3300	3300	3300
	1x75	2859	3000	3000	3000	3000	3000
Dhuvaran Oil	2x110	2555	3000	3000	3000	3000	3000
Dhuvaran CCPP-1	1x106.6	1862	1950	1950	1950	1950	1950
Dhuvaran CCPP-2	112.45	1850	1950	1950	1950	1950	1950
Utran CCPP	3x30 (GT) + 1x45 (ST)	2150	2150	2150	2150	2150	2150
Utran CCPP Extn	375	NA	1850	1850	1850	1850	1850

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;

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

Table 3: SHR for TPL-G generating stations for the second Control Period

(in kcal/kWh)

Stations Name	Units (No. x Cap.MW)	FY 2011-12	FY 2012-13	FY 2013-14	FY2014-15	FY 2015-16
Sabarmati 'C'	2x30	3150	3150	3150	3150	3150
Sabarmati 'D'	1x120	2450	2450	2450	2450	2450
Sabarmati 'E'	1x110	2725	2725	2725	2725	2725
Sabarmati 'F'	1x110	2725	2725	2725	2725	2725
Vatva CCPP	2x32.5 (GT) + 1x35 (ST)	2165	2165	2165	2165	2165

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

a) Coal and lignite based thermal power generating stations

$$= 1.065 \times \text{Design Heat Rate (kcal/kWh)};$$

Where the Design Heat Rate of a Unit means the Unit heat rate guaranteed by the supplier at conditions of 100% Maximum Continuous Rating (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:

Table 4: SHR for New Generating Stations for the second Control Period

Pressure Rating (kg/cm²)	150	170	170	247	247
SHT/RHT (°C)	535/535	537/537	537/565	537/565	565/593
Type of BFP	Electrical Driven	Turbine driven	Turbine driven	Turbine driven	Turbine driven
Max Turbine Cycle Heat rate (kcal/kWh)	1955	1950	1935	1900	1850
Min. Boiler Efficiency					
Sub-Bituminous Indian Coal	0.85	0.85	0.85	0.85	0.85
Bituminous Imported Coal	0.89	0.89	0.89	0.89	0.89
Max Design Unit Heat rate (kcal/kWh)					
Sub-Bituminous Indian Coal	2300	2294	2276	2235	2176
Bituminous Imported Coal	2197	2191	2174	2135	2079

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

Provided further 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 further that if one or more Units are declared under commercial operation prior to the date of effectiveness of these Regulations, the heat rate norms for those Units as well as Units declared under commercial operation on or after the effectiveness of these Regulations shall be lower of the heat rate norms arrived at by the above methodology and the norms in accordance with these Regulations:

Provided also that in case of lignite-fired generating stations (including stations based on Circulating Fluidised Bed Combustion [CFBC] technology), maximum design heat rates shall be increased using factor for moisture content given below:

For lignite fired power plants, the multiplying factors, depending upon the moisture content in the lignite, for deriving the gross Station Heat Rate from that applicable for coal based thermal power plants, are as under:

- (i) For lignite having 50% moisture: Multiplying factor of 1.10;
- (ii) For lignite having 40% moisture: Multiplying factor of 1.07;
- (iii) For lignite having 30% moisture: Multiplying factor of 1.04;
- (iv) 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 (i) to (iii) above.

Note: In respect of 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 boiler feed pumps.

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

= $1.05 \times$ Design Heat Rate of the Unit for Natural Gas and RLNG (kcal/kWh);

= $1.071 \times$ Design Heat Rate of the Unit 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 Unit shall mean the guaranteed heat rate for a Unit at 100% MCR, site ambient conditions, zero percent make up, design cooling water temperature/back pressure.

45.4 Secondary fuel oil consumption:

For Existing Stations:

- a) Secondary fuel oil consumption (SFC) for all thermal generating Units/Stations, except those covered under clause (b) shall be as under:
- i. Coal-based generating stations: 1.0 ml/kWh;
 - ii. Lignite-Fired generating stations except stations based on CFBC technology: 2.0 ml/kWh;
 - iii. Lignite-Fired generating stations based on CFBC technology: 1.25 ml/kWh;
- b. SFC norm for following GSECL stations, shall be as under:

Table 5: SFC for GSECL generating stations for the second Control Period

Stations	Units (No.x Cap.MW)	2011-12 (ml/kWh)	2012-13 (ml/kWh)	2013-14 (ml/kWh)	2014-15 (ml/kWh)	2015-16 (ml/kWh)
Ukai TPS	2x120	1.00	1.00	1.00	1.00	1.00
	3x210	1.00	1.00	1.00	1.00	1.00
Gandhinagar TPS	2x120	1.00	1.00	1.00	1.00	1.00
	2x210	1.00	1.00	1.00	1.00	1.00
	1x210	3.50	3.50	3.50	3.50	3.50
Wanakbori TPS	6x210	1.00	1.00	1.00	1.00	1.00
	1x210	3.50	3.50	3.50	3.50	3.50
Sikka TPS	2x120	1.00	1.00	1.00	1.00	1.00
Kutch Lignite	2x70	2.00	2.00	2.00	2.00	2.00
	1x75	2.00	2.00	2.00	2.00	2.00
	1x75	2.00	2.00	2.00	2.00	2.00

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

Stations	Units (No.x Cap.MW)	2011-12 (ml/kWh)	2012-13 (ml/kWh)	2013-14 (ml/kWh)	2014-15 (ml/kWh)	2015-16 (ml/kWh)
Sabarmati 'C'	2x30	2.00	2.00	2.00	2.00	2.00
Sabarmati 'D'	1x120	1.00	1.00	1.00	1.00	1.00
Sabarmati 'E'	1x110	1.00	1.00	1.00	1.00	1.00
Sabarmati 'F'	1x110	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.

For New Generating Stations:

- a) Coal-based Generating Stations : 1.0 ml/kWh;
- b) Lignite-Fired Generating Stations except stations based on CFBC technology : 2.0 ml/kWh;
- c) Lignite-Fired Generating Stations based on CFBC technology : 1.25 ml/kWh.

45.5 Auxiliary Energy Consumption:

- (a) Coal-based Generating Stations, other than those covered under Clause (b):

Table 7: Auxiliary Energy Consumption for the second Control Period

Auxiliary Energy Consumption	With Natural Draft cooling tower or without cooling tower
(i) 200 MW series	8.50%
(ii) 500 MW & above	
Steam driven boiler feed pumps	6.00%
Electrically driven boiler feed pumps	8.50%

Provided further that for the thermal generating stations with induced draft cooling towers, the norms shall be higher by 0.5%, as compared to the above norms.

- (b) Existing generating stations of GSECL and TPL-G:

Table 8: Auxiliary Consumption for GSECL Stations for the second Control Period

Stations	Units (No.x Cap.MW)	2011-12 (%)	2012-13 (%)	2013-14 (%)	2014-15 (%)	2015-16 (%)
Ukai TPS	2x120	10.00	10.00	10.00	10.00	10.00
	3x210	8.50	8.50	8.50	8.50	8.50
Gandhinagar TPS	2x120	10.50	10.50	10.50	10.50	10.50
	2x210	9.00	9.00	9.00	9.00	9.00
	1x210	9.00	9.00	9.00	9.00	9.00

Stations	Units (No.x Cap.MW)	2011-12 (%)	2012-13 (%)	2013-14 (%)	2014-15 (%)	2015-16 (%)
Wanakbori TPS	6x210	9.00	9.00	9.00	9.00	9.00
	1x210	9.00	9.00	9.00	9.00	9.00
Sikka TPS	2x120	10.50	10.50	10.50	10.50	10.50
Kutch Lignite	2x70	12.00	12.00	12.00	12.00	12.00
	1x75	12.00	12.00	12.00	12.00	12.00
	1x75	12.00	12.00	12.00	12.00	12.00
Dhuvaran Oil	2x110	9.50	9.50	9.50	9.50	9.50
Dhuvaran CCPP-1	1x106.6	3.00	3.00	3.00	3.00	3.00
Dhuvaran CCPP-2	112.45	3.00	3.00	3.00	3.00	3.00
Utran CCPP	3x30 (GT) + 1x45 (ST)	3.00	3.00	3.00	3.00	3.00
Utran CCPP Extn	375	3.00	3.00	3.00	3.00	3.00

Table 9: Auxiliary Energy consumption for TPL stations for the second Control Period

Stations	Units (No.x Cap.MW)	2011-12 (%)	2012-13 (%)	2013-14 (%)	2014-15 (%)	2015-16 (%)
Sabarmati 'C'	2x30	9.50	9.50	9.50	9.50	9.50
Sabarmati 'D'	1x120	9.00	9.00	9.00	9.00	9.00
Sabarmati 'E'	1x110	9.00	9.00	9.00	9.00	9.00
Sabarmati 'F'	1x110	9.00	9.00	9.00	9.00	9.00
Vatva CCPP	2x32.5 (GT) + 1x35 (ST)	3.00	3.00	3.00	3.00	3.00

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) Gas Turbine/Combined Cycle generating stations:

(i) Combined cycle : 3.0%;

(ii) Open cycle : 1.0%.

(d) 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:

The auxiliary energy consumption norms shall be 0.5 percentage point more than the auxiliary energy consumption norms of coal based generating stations above:

Provided that for the lignite fired stations using CFBC technology, the auxiliary energy consumption norms shall be 1.5 percentage point more than the auxiliary energy consumption norms of coal based generating stations as specified above.

45.6 Transit and handling Losses:

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

- (a) Coal-based Generating Stations, other than those covered under Clause (b):
 - i. Pit head generating stations : 0.2%;
 - ii. Non-pit head generating stations : 0.8%;

- (b) Coal-based Generating Stations, other than those covered under Clause (a):

Table 10: Transit Loss for the second Control Period

Stations	Transit Loss (%)				
	2011-12	2012-13	2013-14	2014-15	2015-16
TPL-G	1.40	1.20	1.00	0.90	0.80

46 Operation and maintenance expenses

46.1 Existing Generating 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, 2010, 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, 2009 and shall be escalated based on the escalation factor as approved by the Commission for the respective years to arrive at

operation and maintenance expenses for the year commencing April 1, 2011.

- c) The O&M expenses for each subsequent year will be determined by escalating the base expenses determined above for FY 2010-11, at the escalation factor 5.72 % to arrive at permissible O&M expenses for each year of the Control Period:

Provided that in case, an existing generating station has been in operation for less than three (3) years as at on the date of effectiveness of these Regulations, the O&M Expenses shall be as specified at Regulation 47 for New Generating Stations.

47 New Generating Stations:

- a) For coal based generating stations:

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

Rs. Lakh/MW

Particulars	200/210/250 MW Sets	500 MW and above Sets
FY 2011-12	14.38	12.94
FY 2012-13	15.20	13.68
FY 2013-14	16.07	14.46
FY 2014-15	16.99	15.29
FY 2015-16	17.96	16.16

Note:

For the generating stations having combination of 200/210/250 MW sets and 500 MW and above sets, the weighted average value for operation and maintenance expenses shall be adopted.

- b) For lignite based generating stations:

Table 12: O&M Expense Norms of New Lignite based Generating Stations for the second Control Period

Rs. Lakh/MW

Particulars	Lignite based Unit/Stations
FY 2011-12	14.38
FY 2012-13	15.20
FY 2013-14	16.07
FY 2014-15	16.99
FY 2015-16	17.96

c) Gas Turbine/Combined Cycle generating stations

Table 12: O&M Expense Norms of New Gas Turbine/Combined Cycle generating stations for the second Control Period

Rs. Lakh/MW

Particulars	Gas Turbine/Combined Cycle Generating Stations		Small Gas Turbine Generating Stations (less than 50 MW unit size)
	With warranty spares for 10 years	Without warranty Spares	Without warranty Spares
FY 2011-12	7.18	10.78	13.08
FY 2012-13	7.60	11.39	13.83
FY 2013-14	8.03	12.04	14.62
FY 2014-15	8.49	12.73	15.46
FY 2015-16	8.97	13.46	16.34

48 Norms of operation for Hydro Generating Stations

The norms of operation shall be as under, namely:

48.1 Normative Plant Availability Factor (NAPAF) index for recovery of annual fixed charges:

Particulars	Normative Plant Availability Factor
Storage and Pondage type plants with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of upto 8%, and where plant availability is not affected by silt	90%
Storage and Pondage type plants with head variation between FRL and MDDL of more than 8%, where plant availability is not affected by silt	Plant-specific allowance to be provided in NAPAF for reduction in MW output capability as reservoir level falls over the months. As a general guideline the allowance on this account in terms of a

Particulars	Normative Plant Availability Factor
	<p>multiplying factor may be worked out from the projection of annual average of net head, applying the formula:</p> $(\text{Average head} / \text{Rated head}) + 0.02$ <p>Alternatively in case of a difficulty in making such projection, the multiplying factor may be determined as:</p> $(\text{Head at MDDL}/\text{Rated head}) \times 0.5 + 0.52$
Pondage type plants where plant availability is significantly affected by silt	85%
Run-of-river type plants	To be determined plant-wise, based on 10-day design energy data, moderated by past experience where available/relevant

48.2 Auxiliary Energy Consumption:

- (a) Surface hydro electric power generating stations:
 - i. With rotating exciters mounted on the generator shaft: 0.7%;
 - ii. With static excitation system: 1%;
- (b) Underground hydro generating station:
 - i. With rotating exciters mounted on the generator shaft: 0.9%;
 - ii. With static excitation system: 1.2%.

48.3 Transformation losses:

From generation voltage to transmission voltage: 0.5% of energy generated.

49 Operation and Maintenance Expenses for Hydro Generating Stations

49.1 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, 2010, 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, 2009 and shall be escalated based on the escalation factor as approved by the Commission for the respective years to arrive at operation and maintenance expenses for the year commencing from April 1, 2011.
- c) The O&M expenses for each subsequent year will be determined by escalating the base expenses determined above for FY 2010-11, at the escalation factor 5.72% to arrive at permissible O&M expenses for each year of the Control Period.

49.2 For New Stations:

- (1) O&M expenses for first year of operation will be 2% of the original project cost (excluding cost of rehabilitation and resettlement works) for the first year of operation.
- (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%.

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

A. Annual Fixed Charges:

- 50.1 The total Annual Fixed Charges shall be computed based on the norms specified under these Regulations and recovered on monthly basis.
- 50.2 The full Annual Fixed Charges shall be recoverable at target availability specified in these Regulations. Recovery of Annual Fixed Charges below the level of Target Availability will be on pro rata basis. At zero Availability, no Fixed Charges shall be payable.
- 50.3 Payment of Annual Fixed Charges shall be on monthly basis in equal instalments in proportion to contracted capacity subject to adjustment with respect to achievement of Target Availability.

B. Energy Charges:

50.4 The Energy (variable) Charges shall cover landed fuel costs and shall be computed as follows:

Energy (variable) Charges shall cover fuel costs and shall be worked out on the basis of ex-bus energy sent out from the generating station as per the following formula:

Energy Charges (Rs) = Rate of Energy Charges in Rs/kWh \times Energy (ex-bus) for the month in kWh corresponding to actual generation.

50.5 Rate of Energy Charges (REC) in Rs/kWh shall be the sum of the cost of normative quantities of primary and secondary fuel for delivering ex-bus one kWh of electricity and shall be computed as under:

$$\text{REC} = \frac{100\{P_p \times (Q_p)_n + P_s \times (Q_s)_n\}}{(100 - (\text{AUX}_n))} \text{ (Rs/kWh);}$$

Where;

P_p = Price of primary fuel namely coal or lignite or gas or liquid fuel and lime stone, if applicable, in Rs/kg or Rs/cum or Rs/litre, as the case may be;

$(Q_p)_n$ = Quantity of primary fuel required for generation of one kWh of electricity at generator terminals in kg or litre or cum, as the case may be, and shall be computed on the basis of normative Gross Station Heat Rate (less heat contributed by secondary fuel oil for coal/lignite based generating stations) and gross calorific value of coal/lignite or gas or liquid fuel as fired;

P_s = Price of Secondary fuel oil in Rs./ml;

$(Q_s)_n$ = Normative Quantity of Secondary fuel oil in ml/kWh as specified in these Regulations; and

AUX_n = Normative Auxiliary Energy Consumption as % of gross generation as specified in these Regulations).

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

50.6 Adjustment of Rate of Energy Charges (REC) [Fuel Price Adjustment] on account of variation in price or heat value of fuels:

Adjustment of Rate of Energy Charges (REC) [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.

50.7 Landed Cost of fuel:

The landed cost of fuel shall include price of fuel corresponding to the grade/quality/calorific value of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail/road/gas pipe line or any other means, and, for the purpose of computation of energy charges, shall be arrived at after considering normative transit and handling losses as percentage of the quantity of fuel dispatched by the fuel supply company during the month as specified in these Regulations.

C. Incentive:

50.8 Incentive shall be payable at a flat rate of 25.0 paise/kWh for scheduled energy generation in excess of ex-bus energy corresponding to target Plant Load Factor.

The incentive amount shall be computed and billed on monthly basis based on the cumulative Plant Load Factor till the respective month in a Financial Year, subject to adjustment at the end of that financial year.

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

51.1 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.

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

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

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.

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

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

Where;

AUX = Normative auxiliary energy consumption in percentage;

DC_i = Declared capacity (in ex-bus MW) for the ith 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.

51.4 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) × { Energy (ex-bus) } for the month in kWh

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

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

Where;

DE = Annual Design Energy specified for the hydro generating station, in MWh, subject to the provision in Regulation 51.6 below.

51.6 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 this Regulation 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 concerned (first) and the following (second) financial years is A1 and A2 MWh, respectively, A1 being less than DE. Then, the Design Energy to be considered in the formula in this Regulation 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 $100 / (100 - AUX)$.

51.7 In case the Energy Charge Rate (ECR) for a hydro generating station, as computed in Regulation 51.4 above, exceeds eighty 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 eighty 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 eighty paise per kWh after the energy charge shortfall of the previous year has been made up.

51.8 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.

52 Demonstration of declared capacity

- 52.1 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.
- 52.2 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.
- 52.3 The operating logbooks of the generating station shall be available for review by the Gujarat State Load Despatch Centre, as the case may be. These books shall keep record of machine operation and maintenance.

53 Billing and Payment of Charges

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

54 Reactive Energy Charges

- 54.1 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 levied/compensated to the generating station at rate of 10.00 paise/kVArh for FY 2010-11 escalated at 0.5 paise/kVArh annually in subsequent years of the Control Period, unless otherwise revised by Commission.

CHAPTER-5: INTRA-STATE TRANSMISSION

55 Applicability

55.1 The Regulations contained in this Part shall apply in determining tariffs 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.

55.2 The Commission shall be guided by the terms and conditions contained in this Part 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.

56 Components of tariff

Annual Transmission Charges for each year of the Control Period:

56.1 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 and income from Other Business, 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.

56.2 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 or application for adoption of annual transmission charges in case of competitively awarded transmission system project, as the case may be, made by the Transmission Licensee in accordance with Chapter-2 of these Regulations.

57 Business Plan

57.1 Each Transmission Licensee shall submit a Business Plan in the manner specified in Chapter-2 of these Regulations.

58 Capital Investment Plan

58.1 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 Business Plan:

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.

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

59 Capital Cost

59.1 For the purpose of determination of tariff, the Capital Cost for a Transmission Project and additional capitalisation thereof, shall be allowed in accordance with the provisions outlined under Regulation 30 and Regulation 31, respectively.

60 Norms for operation

60.1 Target availability for full recovery of annual transmission charges:

- | | |
|--------------------------------|----------------|
| (a) AC system | : 98 per cent; |
| (b) HVDC bi-pole links | : 92 per cent; |
| (c) HVDC back-to-back stations | : 95 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 target availability shall be calculated in accordance with the procedure provided in **Annexure-II** to these Regulations and shall be certified by Gujarat State Load Despatch Centre.

61 Calculation of Aggregate Revenue Requirement

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

- (a) Return on Equity (ROE);
- (b) Interest and Finance Charges on Loan Capital;
- (c) Depreciation;
- (d) Operation and maintenance expenses;
- (e) Interest on working capital and deposits from Transmission System Users; and

Annual Transmission Charges = Aggregate Revenue Requirement, as above, minus:

- (f) Non-Tariff Income; and
- (g) Income from Other Business, to the extent specified in these Regulations.

61.2 Return on Equity:

61.2.1 The Transmission Licensee shall be allowed a return on equity base as specified in Regulation 33 of these Regulations.

61.3 Interest and Finance Charges on Loan Capital:

61.3.1 The Transmission Licensee shall be allowed Interest and Finance Charges on loan capital as specified in Regulation 34 of these Regulations.

61.4 Depreciation:

61.4.1 The Transmission Licensee shall be permitted to recover depreciation on the value of fixed assets as specified in Regulation 35 of these Regulations.

61.5 Operation and Maintenance expenses:

61.5.1 Existing Transmission Licensee:

Gujarat Electricity Transmission Company Ltd. (GETCO)

Table 13: O&M Expense norms from FY 2011-12 to FY 2015-16 in Rs. Lakh/Bay and Rs. Lakh/Ckt. Km

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
O&M Expenses/Bay	5.63	5.95	6.29	6.65	7.04
O&M Expenses/Ckt Km	0.44	0.46	0.49	0.51	0.54

61.5.2 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: 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 2011.

Explanation: For the purpose of deriving normative O&M expenses under Regulations 61.5.1 and 61.5.2, the '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.

61.6 Interest on working capital:

61.6.1 The Transmission Licensee shall be allowed interest on the estimated level of working capital, as specified in Regulation 36 of these Regulations.

62 Non-Tariff Income

62.1 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.

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) Interest on delayed or deferred payment on bills;
- e) Interest on advances to suppliers/contractors;

- f) Rental from staff quarters;
- g) Rental from contractors;
- h) Income from hire charges from contactors and others;
- i) Income from advertisements, etc.;
- j) Miscellaneous receipts;
- k) Excess found on physical verification;
- l) Interest on investments, fixed and call deposits and bank balances;
- m) Prior period income.

63 Income from Other Business

63.1 Where the Transmission Licensee has 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 exceed 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.

64 Sharing of charges for intra-State assets

64.1 The Annual Transmission Charges (ATC) of any intra-State transmission licensee, as determined by the Commission in the ARR of the licensee for the relevant year, shall be shared by all long-term and medium-term open access customers on monthly basis (including existing distribution licensees and generating companies) in the ratio of their allotted capacities:

Provided that the ATC to be recovered from the long-term and medium-term open access customers shall be reduced by the amount received as transmission charges from the short-term open access customers as provided in the Regulations on intra-state open access:

Provided further that the transmission charges payable by any long-term or medium-term open access customer utilizing the transmission system for part of a month shall be determined as under:

Transmission charges= $ATC / (ACs \times 365)$ (in Rs./MW-day);

Where;

ATC= Annual Transmission Charges determined by the Commission for the transmission system of the Transmission Licensee for the relevant year, and

ACs = sum of capacities allocated to all long-term and medium-term open access customers.

65 Incentive

65.1 The Transmission Licensee shall be entitled to incentive @ 1% of equity for each percentage point of increase in annual availability beyond the target availability prescribed under Regulation 60, in accordance with the following formula:

Incentive = $Equity \times [Annual\ availability\ achieved - Target\ availability] / 100$

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

66 Rebate

66.1 For payment of bills of transmission charges through Letter of Credit within 7 days of presentation of bill, a rebate of 2% on billed amount shall be allowed. 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 Transmission Licensee, a rebate of 1% on billed amount shall be allowed.

67 Late Payment Surcharge

67.1 In case the payment of bills of transmission charges 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 by the Transmission Licensee.

68 Usage of Intra-State Transmission System

68.1 All the matters related to Open Access Transactions shall be dealt in accordance with Gujarat Electricity Regulatory Commission (Open Access in Intra-State Transmission and Distribution) Regulations, 2005 and as amended from time to time.

68.2 The charges for intra-State transmission usage shall be shared among various TSUs as specified in these Regulations.

69 Transmission losses

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

CHAPTER 6: DISTRIBUTION WIRES BUSINESS

70 Applicability

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

71 Components of Aggregate Revenue Requirement for Distribution Wires Business

71.1 The wheeling charges for Distribution Wires Business of the Distribution Licensee shall provide for the recovery of the Aggregate Revenue Requirement, as provided in Regulation 76 of these Regulations and shall comprise the following:

- (a) Return on Equity;
- (b) Interest and Finance Charges on Loan Capital;
- (c) Depreciation;
- (d) Operation and maintenance expenses;
- (e) Interest on working capital and deposits from Distribution System Users; and

Wheeling charges = Aggregate Revenue Requirement, as above, minus:

- (f) Non-Tariff Income; and
- (g) Income from Other Business, to the extent specified in these Regulations; and
- (h) Receipts on account of additional surcharge on charges for wheeling.

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 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**.

72 Allocation Matrix

72.1 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 14: 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%
Standby 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	10%	90%
Income Tax	90%	10%
Transmission Charges intra-State	0%	100%
Contribution to contingency reserves	90%	10%
Return on Equity	90%	10%
Non Tariff Income	10%	90%

Provided further 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.

73 Business Plan

73.1 The Distribution Licensee shall submit a Business Plan in the manner as specified in **Chapter-2** of these Regulations.

74 Capital Investment Plan

74.1 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, metering, consumer

services, etc., to the Commission for approval, as a part of the Business Plan:

- 74.2 The Distribution Licensee shall be required to ensure optimum investments to enhance efficiency, productivity and meet performance standards prescribed by the Commission.
- 74.3 The Distribution Licensee shall submit the Capital Investment Plan as specified in Chapter-2 of these Regulations.

75 Capital cost

- 75.1 The approved Business Plan of the Distribution Licensee shall be the basis for determining the annual allowable capital cost for each financial year for any capital expenditure project initiated on or after April 1, 2011.
- 75.2 For each capital expenditure project, the sum total of annual allowable capital cost from the date of commencement of such project till the date of commissioning shall be the original cost of such project.
- 75.3 The capital cost shall be allowed as specified in Regulation 30.

76 Calculation of Aggregate Revenue Requirement

76.1 Return on Equity:

- 76.1.1 The Distribution Licensee shall be allowed a return on equity for Distribution Wires Business, as specified in Regulation 33 of these Regulations.

76.2 Interest and Finance Charges on Loan Capital:

- 76.2.1 The Distribution Licensee shall be allowed Interest and Finance Charges on loan capital for Distribution Wires Business, as specified in Regulation 34 of these Regulations.

76.3 Depreciation:

- 76.3.1 The Distribution Licensee shall be permitted to recover depreciation on the value of fixed assets used in the Distribution Wires Business as specified in Regulation 35 of these Regulations.

76.4 Operation and Maintenance expenses:

- 76.4.1 The Distribution Licensee shall be permitted to recover Operation and Maintenance expenses relating to the Distribution Wires Business as per the Norm specified below for each year of the Control Period:

In Rs/kWh*

Particulars	FY 12	FY 13	FY 14	FY 15	FY 16
PGVCL	0.21	0.22	0.24	0.25	0.26
DGVCL	0.12	0.13	0.14	0.14	0.15
UGVCL	0.18	0.19	0.20	0.21	0.22
MGVCL	0.29	0.30	0.32	0.34	0.36
TPL-Ahmedabad	0.24	0.26	0.27	0.29	0.30
TPL-Surat	0.21	0.22	0.23	0.24	0.26

Note: * O&M expenses will be calculated by multiplying the above norm with the quantum of energy handled by Wires Business.

76.5 Interest on working capital:

76.5.1 The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Distribution Wires Business, as specified in Regulation 36 of these Regulations.

Note :

The Commission may, at its discretion, fix suitable norms/limits for any or all the items of expenses.

77 Non-Tariff Income

77.1 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.

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) Interest on delayed or deferred payment on bills;
- 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.

78 Income from Other Business

78.1 Where the Distribution Licensee has 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 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 Distribution Licensee on account of such Other Business.

79 Determination of Wheeling Charges

79.1 The Commission shall specify the wheeling charge of Distribution Wires Business of the Distribution Licensee in its Order passed under subsection (3) of Section 64 of the Act:

Provided that the charges payable by a Distribution System User under this Chapter may comprise any combination of fixed/demand charges, and variable charges, as may be stipulated by the Commission in such Order.

80 Receipts on account of Additional surcharge

80.1 The amount received by the Distribution Licensee by way of additional surcharge on charges of Distribution Wires Business, as approved by the Commission in accordance with the Gujarat Electricity Regulatory Commission (Open Access in Intra-state Transmission and Distribution) Regulations, 2005, as amended from time to time, from consumers connected to wires of the Distribution Licensee, shall be deducted from the Aggregate Revenue Requirement in calculating the wheeling charges of such Distribution Licensee.

81 Wheeling Losses

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

Provided that the Commission may stipulate a trajectory for wheeling losses in accordance with these Regulations, as part of the Order on the Business Plan filed by the Distribution Licensee:

Provided further 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.

82 Wires Availability

82.1 The target Wires Availability for full recovery of Return on Equity for Wires Business shall be as under:

- (a) Rural Areas : 90 percent;
- (b) Towns and cities : 95 percent;

Provided that the Commission may stipulate a trajectory for achieving the target Availability for Wires Business of the Distribution licensee as part of the Order on the Business Plan filed by the Distribution Licensee:

Provided further that for every 1 percent under-achievement in Wires Availability vis-a-vis target availability, Rate of Return on Equity shall be reduced by 0.1%:

Provided further that for every 1 percent over-achievement in Wires Availability vis-a-vis target availability, Rate of Return on Equity shall be increased by 0.1%.

82.2 Wires Availability shall be computed in accordance with following formula:

$$\text{Wires Availability} = (1 - (\text{SAIDI} / 8760)) \times 100;$$

Where;

SAIDI will be calculated as per the formulae specified in Gujarat Electricity Regulatory Commission (Standard of Performance of Distribution Licensee) Regulations, 2005.

82.3 Wires Availability will be measured over the course of a year and will be expressed in percentage terms.

CHAPTER 7: RETAIL SUPPLY OF ELECTRICITY

83 Applicability

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

84 Components of Tariff

84.1 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) Return on Equity;
- (b) Interest and Finance Charges on Loan Capital;
- (c) Depreciation;
- (d) Cost of own power generation /power purchase expenses;
- (e) Transmission charges;
- (f) Operation and Maintenance expenses;
- (g) Interest on working capital and on consumer security deposits; and

Revenue requirement from sale of electricity = Aggregate Revenue Requirement, as above, minus:

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

Provided 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.

84.2 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.

84.3 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 further 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.

85 Business Plan

85.1 The Distribution Licensee shall submit a Business Plan with full details as stipulated by the Commission from time to time, in the manner as specified in Chapter-2 of these Regulations.

86 Capital Investment Plan

86.1 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 Business Plan.

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

86.3 The Distribution licensee shall submit the Capital Investment Plan as specified in Chapter-2 of these Regulations.

87 Capital Cost

87.1 The approved Business Plan of the Distribution Licensee shall be the basis for determining the annual allowable capital cost for each financial year for any capital expenditure project initiated on or after 1st April 2011.

87.2 For each capital expenditure project, the sum total of allowable capital cost from the date of commencement of such project till the date of commissioning shall be the original cost of such project.

87.3 The capital cost shall be allowed as provided in Regulation 30.

88 Sales forecast

88.1 The Distribution Licensee shall submit a monthly 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 Business Plan, as specified in these Regulations.

88.2 The Distribution Licensee shall submit the application for determination of tariff, based on the approved sales forecast in the Order on Business Plan.

88.3 The sales forecast shall be consistent with the load forecast prepared as part of the long-term power procurement plan submitted as a part of Business Plan under these Regulations and 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.

89 Calculation of Aggregate Revenue Requirement

89.1 Return on Equity:

89.1.1 The Distribution Licensee shall be allowed a return on equity for Retail Supply Business, as specified in Regulation 33 of these Regulations.

89.2 Interest and Finance Charges on Loan Capital:

89.2.1 The Distribution Licensee shall be allowed Interest and Finance Charges on loan capital for Retail Supply Business, as specified in Regulation 34 of these Regulations.

89.3 Depreciation:

89.3.1 The Distribution Licensee shall be permitted to recover depreciation on the value of fixed assets used in the Retail Supply Business, as specified in Regulation 35 of these Regulations.

89.4 Cost of power generation/power purchase:

89.5 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 as part of the Order on Business Plan.

89.6 Transmission charges:

89.6.1 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.

89.7 Operation and Maintenance expenses:

89.7.1 The Distribution Licensee shall be permitted to recover Operation and Maintenance expenses relating to the Retail Supply of electricity as specified in the Norms below for each year of the Control Period:

Particulars	In Rs/kWh*				
	FY12	FY13	FY14	FY15	FY16
PGVCL	0.12	0.13	0.13	0.14	0.15
DGVCL	0.07	0.08	0.08	0.09	0.09
UGVCL	0.10	0.11	0.12	0.12	0.13
MGVCL	0.18	0.19	0.20	0.21	0.22
TPL-Ahmedabad	0.11	0.12	0.12	0.13	0.14
TPL-Surat	0.12	0.12	0.13	0.14	0.14

Note: * O&M expenses will be calculated by multiplying the above norm with the quantum of energy sold by a distribution licensee

89.8 Interest on Working Capital:

89.8.1 The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Retail Supply Business, as specified in Regulation 36 of these Regulations.

90 Non-Tariff Income

90.1 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.

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) Interest on delayed or deferred payment on bills;
- 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) Revenue from late payment surcharge;
- n) Recovery for theft and pilferage of energy;
- o) Miscellaneous receipts;
- p) Prior period income.

91 Income from Other Business

91.1 Where the Distribution Licensee has 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 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 Distribution Licensee on account of such Other Business:

Provide further that nothing contained in this Regulation shall apply to a local authority engaged, before the commencement of the Act, in the business of distribution of electricity.

92 Receipts on account of cross-subsidy surcharge

92.1 The amount received by the Distribution Licensee by way of cross-subsidy surcharge, as approved by the Commission in accordance with the Gujarat Electricity Regulatory Commission (Open Access in Intra-state Transmission and Distribution) Regulations, 2005, as amended

from time to time, 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.

93 Distribution Losses

93.1 The Distribution Licensee shall be allowed to recover the approved level of distribution losses arising from the Retail Supply of electricity, excluding wheeling losses:

Provided that the Commission may stipulate a trajectory for distribution losses for Retail Supply of electricity in accordance with these Regulations as part of the Order on the Business Plan filed by the Distribution Licensee:

Provided further 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.

Annexure I

DEPRECIATION SCHEDULE

Description of Assets		Depreciation (Straight line) (%)
A.	Land owned under full title	--
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	5.28
	NHRS & Waste Heat Recovery Boilers/Plants	
	iii) Diesel-electric and gas plant	5.28
b.	Cooling towers and circulating water systems	5.28
c.	Hydraulic works forming part of Hydro-electric systems including:-	
	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 of permanent character	
	i) Offices & showrooms	3.34
	ii) Containing thermo-electric generating plant	3.34

Description of Assets			Depreciation (Straight line) (%)
	iii)	Containing hydro-electric generating plant	3.34
	iv)	Temporary erection such as wooden structures	100
	v)	Roads other than kutcha 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 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) (%)
	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	15
q.		Assets purchased second hand and assets not otherwise provided for in the Schedule	5.28

Annexure II

Procedure for calculation of Transmission System Availability

1. Transmission System Availability shall be calculated separately for each Transmission System. The transmission elements shall be grouped into following categories for the purpose of calculation of availability of Transmission Systems :
 - 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) Switched Bus Reactor: Each switched Bus Reactor 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:

% System Availability for AC system

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

% System Availability for HVDC system

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

Where

- | | | |
|-----------------|----|--|
| n | is | Total number of AC lines. |
| AV _o | is | Availability of o number of AC lines. |
| p | is | Total number of switched bus reactors . |
| AV _p | is | Availability of p number of switched bus reactors. |
| q | is | Total number of ICTs. |

AV_q	is	Availability of q number of ICTs.
r	is	Total number of SVCs.
AV_r	is	Availability of r number of SVCs.
s	is	Total number of HVDC poles
AV_s	is	Availability of s number of HVDC poles
t	is	Total number of HVDC back-to-back station blocks.
AV_t	is	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:
 - i) For each circuit of AC line – Surge Impedance Loading for Uncompensated line (SIL) multiplied by Circuit Km.
 - ii) SIL rating for various voltage level and conductor configuration is given in **Appendix II** to this Annexure. However, for the voltage levels and/or conductor configurations not listed in **Appendix II**, appropriate SIL based on technical considerations may be used for availability calculation under intimation to Transmission System Users.
 - iii) For each HVDC pole – The rated MW capacity × Circuit Km.
 - iv) For each ICT bank – The rated MVA capacity.
 - v) For SVC – The rated MVAR capacity (inductive & capacitive).
 - vi) For switched Bus reactor – The rated MVAR capacity.

For HVDC back-to-back station connecting two Transmission Systems –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 I** to this **Annexure II**.
5. The transmission elements under outage due to following reasons not attributable to the transmission licensee shall be deemed to be available:
 - i) Shut down of transmission elements availed by other agency/agencies for maintenance or construction of their transmission system.
 - ii) Manual tripping of line due to over voltage and manual tripping of switched bus reactor 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

Commission or any such other forum/agency as specified by the Commission that element outage was due to aforesaid events and not due to design failure shall rest on the transmission licensee. A reasonable restoration time for the element shall be allowed by Commission or any such other forum/agency as specified by the Commission 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. Commission or any such other forum/agency as specified by the Commission may consult the transmission licensee or any expert for estimation of restoration time. 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, tripping of lines, ICTs, HVDC back-to-back stations etc. due to grid disturbance. However, if the element is not restored on receipt of direction from SLDC while normalising the system following grid incident/disturbance within reasonable time, the element will be considered not available for whole period of outage and outage time shall be attributable to the transmission licensee.
7. If the outage of any element causes loss of generation at a in-state generation stations then the outage period for that element shall be deemed to be twice the actual outage period for the day(s) on which such loss of generation has taken place.

Formulae for calculation of Availability of each category of transmission elements

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

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

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

$$AV_r(\text{Availability of } r \text{ no. of SVCs}) = \frac{\left[\sum_{l=1}^r \frac{0.5 W_{lI} (T_{lI} - T_{NAI})}{T_{lI}} + \sum_{l=1}^r \frac{0.5 W_{lC} (T_{lC} - T_{NAC})}{T_{lC}} \right]}{\left[\sum_{l=1}^r 0.5 W_{lI} + \sum_{l=1}^r 0.5 W_{lC} \right]}$$

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

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

- 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_{lI} & W_{lC} = 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.

$T_i, T_j, T_k, T_{lI}, T_{lC}, T_m$ & 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)

$T_{NAi}, T_{NAj},$ The non-availability hours (excluding the time period for outages not

T_{NAk} , T_{NAj} ,
 T_{NACl} , $T_{NA m}$, 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), 1^{th} SVC (Capacitive Operation), m^{th} Switched Bus Reactor & n^{th} HVDC back-to-back block.

APPENDIX II

SURGE IMPEDANCE LOADING (SIL) OF AC LINES

S.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