

**GUJARAT ELECTRICITY REGULATORY COMMISSION (GERC)**  
**Terms and Conditions of Tariff**  
**Notification No. 12 of 2005**

**Gujarat Electricity Regulatory Commission** In exercise of the powers conferred by Section 45(2), 61 and 62 read with Section 181 of the Electricity Act, 2003 (No. 36 of 2003) 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, Gujarat Electricity Regulatory Commission (GERC) hereby makes the following Regulations, namely:

**CHAPTER 1**

**PRELIMINARY**

**1. Short title and commencement:**

(1) These regulations may be called the Gujarat Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005.

(2) These regulations shall come into force on the date of their publication in the Gazette.

(3) The Commission shall come out with detailed orders regarding the operationalisation of ABT after consultation with all stakeholders and considering their degree of preparedness for implementing the same.

(4) Regulations shall be applicable to distribution projects during the Control period. Further, the tariffs for distribution licensees shall be governed as may be specified by the Commission in the Multi Year Tariff Principles<sup>1</sup> at the end of the Control Period.

**2. Scope and extent of application:**

(1) Where tariff for generation and transmission has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government, the Commission shall adopt such tariff in accordance with the provisions of the Act.

(2) These regulations shall apply in all other cases

Provided that the Commission may prescribe the relaxed norms of operation, including the norms of target availability and Plant Load Factor, as well as a lower return on equity, than those contained in these regulations for a generating station, the tariff of which is not presently determined by it separately and which exists as a part of integrated operations of a utility/distribution licensee.

### **3. Norms of operation to be ceiling norms:**

For removal of doubts, it is clarified that the norms of operation specified under these regulations are the ceiling norms and this shall not preclude the generating company or the transmission licensee or the distribution licensee, as the case may be, and the beneficiaries from agreeing to improved norms of operation and in case the improved norms are agreed to, such improved norms shall be applicable for determination of tariff. The Commission may decide to differ from the normative parameters or extend the deadline of the implementation of the given normative parameters on a case to case basis for existing plants due to mix of vintage, size technology (e.g. old technology, CFBC technology etc), fuel grades, site specific conditions and other that might have a bearing on the efficiency of the unit. The Commission would review the past operations in detail while providing the concession. However the Commission shall provide the concession on a time bound basis provided the unit can outline a road map to boost its efficiency.

### **4. Tariff determination:**

(1) Tariff in respect of a generating station under these regulations shall be determined stage-wise, unit-wise or for the whole generating station and tariff for the transmission system shall be determined line-wise, sub-station-wise and system-wise, as the case may be, and aggregated to state level tariff. For distribution licensee, the tariff shall be set for the entire license area on an aggregated basis for each consumer class respectively.

(2) For the purpose of tariff, the capital cost of the generation / transmission project shall be broken up into stages and by distinct units forming part of the project. Where the stage-wise, unit-wise, line-wise or sub-station-wise break up of the capital cost of the project is not available and in case of on-going projects, the common facilities shall be apportioned on the basis of the installed capacity of the units and lines or sub-stations. 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.

### **Explanation**

For the purpose of this chapter, 'project' includes a generating station and the transmission system.

### **5. Application for determination of tariff:**

(1) The generating company or the transmission licensee or the distribution licensee, as the case may be, may make an application for fixation of tariff in respect of the completed units of the generating station or the lines or sub-stations of the transmission system or for the area of supply for the distribution system.

(2) In case of the existing generating station or the existing transmission system, the generating company or the transmission licensee, as the case may be, shall make an application for determination of tariff as per the formats to be specified by the Commission. For distribution licensee, these shall be as per the ARR formats specified by the Commission, with the Return on Equity replacing the calculation based on Return on Capital Base. The Commission may make appropriate modifications from time to time to the formats.

(3) In case of a generating station or the transmission system declared under commercial operation on or after notified date of the tariff regulations by the Commission as per regulation 1(2), an application for fixation of tariff shall be made in two stages, namely:

(i) A generating company or a transmission licensee may make an application as per formats specified by the Commission, for determination of provisional tariff in advance of the anticipated date of completion of the project based on the capital expenditure actually incurred up to the date of making of the application or a date prior to making of the application, duly audited and certified by the statutory auditors, and the provisional tariff shall be charged from the date of commercial operation of the respective unit of the generating station or the line or sub-station of the transmission system;

(ii) A generating company or the transmission licensee shall make a fresh application in the same format as above, for determination of final tariff based on actual capital expenditure incurred up to the date of commercial operation of the generating station or the transmission system, duly audited and certified by the statutory auditors.

For clarification, it may be reiterated that a distribution licensee needs to file the ARR only once every year with the Commission during the Control Period.

6. **Core Business:** For the purpose of these regulations, core business means the regulated activities of generation or any regulated business as per section 12 of the Act and does not include any other business or activity of the generating company or the licensee.

7. **Tax on Income:**

(1) Tax on the income streams of the generating company or the transmission licensee or the distribution licensee, as the case may be, from its core business, shall be computed as an expense and shall be recovered from the beneficiaries.

(2) 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 or distribution licensee, as the case may be, may make such adjustments directly and without making any application to the Commission in this regard.

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.

Provided further that the generating station-wise profit before tax in the case of the generating company, and the area of supply wise profit before tax for the transmission and distribution licensees respectively estimated for a year in advance shall constitute the basis for distribution of the corporate tax liability to all the generating stations and transmission and distribution licensees respectively. Provided further that the benefits of tax-holiday as applicable in accordance with the provisions of the Income-Tax Act, 1961 shall be passed on to the beneficiaries.

Provided further that in the absence of any other equitable basis the credit for carry forward losses and unabsorbed depreciation shall be given in the proportion as provided in the second proviso to this regulation.

Provided further that income-tax allocated to the thermal generating station shall be charged to the beneficiaries in the same proportion as annual fixed charges, the income-tax allocated to the hydro generating station shall be charged to the beneficiaries in the same proportion as annual capacity charges and in case of intra-state transmission, the sharing of income-tax shall be in the same proportion as annual transmission charges.

8. **Extra Rupee Liability:** Extra rupee liability towards interest payment and loan repayment corresponding to the normative foreign debt or actual foreign debt, as the case may be, in the relevant year shall be permissible provided it directly arises out of Foreign Exchange Rate Variation and is not attributable to the generating company or the transmission licensee or distribution licensee or its suppliers or contractors. Every generating company and the transmission licensee or distribution licensee shall recover Foreign Exchange Rate Variation on a year to year basis as income or expense in the period in which it arises and Foreign Exchange Rate Variation shall be adjusted on a year to year basis.

9. **Recovery of Income-tax and Foreign Exchange Rate Variation:** Adjustments for under-recovery or over-recovery of any amount from the beneficiaries or the consumers on account of such Foreign Exchange Rate variations shall also be adjusted every year, and the generating company, or the transmission or distribution licensee, as the case may be, may make such adjustments directly and without making any application to the Commission in this regard.

Provided, however, that in case of any objections by the beneficiaries or the consumers to the amounts claimed on account any adjustments made for under-recovery or over-recovery either due to variation in actual tax liability or due to Foreign Exchange Rate Variation, the generating company or the transmission or the distribution licensee, as the case may be, shall make an appropriate application before the Commission for its decision.

10. **Deviation from norms:**

(1) Tariff for sale of electricity by a generating company may also be determined in deviation of the norms specified in these regulations subject to the conditions that:

(a) The overall per unit tariff of electricity over the entire life of the asset, calculated on the basis of the norms in deviation does not exceed the per unit tariff calculated on the basis of the norms specified in these regulations; and

(b) Any such deviation shall come into effect only after approval by the Commission.

(2) In case of the existing generating stations existing with integrated utilities like GEB and AEC, tariff shall continue to be determined by adopting the present tariff principles approach till the unbundling / accounting separation has occurred.

11.

11 (1) **GENERAL FRAMEWORK**

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

11 (2) **POWER TO REMOVE DIFFICULTIES:**

If any difficulty arises in giving effect to these regulations, the Commission may, of its own motion or otherwise, by an order and after giving a reasonable opportunity to those likely to be affected by such order, make such provisions, not inconsistent with these regulations, as may appear to be necessary for removing the difficulty.

11 (3) **SAVING OF INHERENT POWER OF THE COMMISSION**

1) Nothing in these Regulations shall be deemed to limit or otherwise affect the inherent power of the Commission to make such orders as may be necessary for ends of justice or to prevent the abuse of the process of the Commission.

2) Nothing in these Regulations shall bar the Commission from adopting in

conformity with the provisions of the Acts, a procedure, which is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient for dealing with such a matter or class of matters.

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

#### **11 (4) GENERAL POWER TO AMEND**

The Commission may, at any time and on such terms as to costs or otherwise, as it may think fit, amend any defect or error in any Tariff Proceeding before it, and all necessary amendments shall be made for the purpose of determining the real question or issue arising in the Tariff Proceedings.

#### **11 (5) EFFECT OF NON-COMPLIANCE**

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

#### **11 (6) GENERAL**

The Commission shall be guided by the following

- 1) The principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees as may be in force from time to time.
- 2) The National Electricity Policy and Tariff Policy as may be in force from time to time and
- 3) Principles as mentioned in Section 61 of the Electricity Act, 2003

#### **11 (7) PROCEDURE FOR MAKING APPLICATION**

(1) The application shall be made to the commission by Generating Company as per the formats appended as Appendix A & B, by Transmission licensee for determination of tariff as per the formats appended as Appendix C. For distribution licensee, these shall be according to the ARR formats appended as Appendix D.

(2) The application shall be made to the Commission accompanied by such fee as may be specified by the Commission from time to time.

(3) The applicant shall post complete application on its own website.

(4) The application made shall be supported by affidavit of the person acquainted with the facts stated in the application.

(5) The applicant shall, within 7 days after making 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 relevant area.

(6) The suggestions and objections, if any, to proposal for determination of tariff, may be filed before the Secretary, Gujarat Electricity Regulatory Commission, First Floor, Neptune Tower, Ashram road, Opp. Nehru Bridge, Ahmedabad, by any person within 30 days of publication of this notice with a copy to the applicant.

(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.

(8) The applicant may file his comments on the suggestions and objections, if any, received in response to the public notice within 45 days of its publication.

(9) Distribution licensees shall file their ARR for each ensuing financial year by 30<sup>th</sup> November of the previous financial year.

## **12. DECISION ON APPLICATION**

(1) The Commission may after considering the suggestions and objections received in response to the public notice -

(a) Issue the tariff order accepting the application with such modifications or such conditions as may be specified in the order:

Provided that the Commission may in its discretion, afford an opportunity of hearing to the applicant, the beneficiary, any person who has filed suggestions or objections, or any one or more of them before issuing the tariff order.

(b) Reject the application for reasons to be recorded in writing if such application is not in accordance with the provisions of the Electricity Act, 2003, the rules or regulations made thereunder or the provisions of any other law for the time being in force:

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

## CHAPTER 2

### Thermal Power Generating Stations

13. **Definitions:** Unless the context otherwise requires, for the purpose of this chapter, :-

(i) **'Act'** means the Electricity Act, 2003;

(ii) **'Additional Capitalisation'** means the capital expenditure actually incurred after the date of commercial operation of the generating station and admitted by the Commission after prudence check subject to provisions of regulation 18;

(iii) **'Authority'** means Central Electricity Authority referred to in Section 70 of the Act;

(iv) **'Auxiliary Energy Consumption' or 'AUX'** in relation to a period means the quantum of energy consumed by auxiliary equipment of the generating station and transformer losses within the generating station, and shall be expressed as a percentage of the sum of gross energy generated at the generator terminals of all the units of the generating station;

(v) **'Availability'** in relation to a thermal generating station for any period means the average of the daily average declared capacities (DCs) 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, and shall be computed in accordance with the following formula:

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

where,

IC = Installed Capacity of the generating station in MW,

DC<sub>i</sub> = Average declared capacity for the i<sup>th</sup> day of the period in MW,

N = Number of days during the period, and

AUX<sub>n</sub> = Normative Auxiliary Energy Consumption as a percentage of gross generation;

- (vi) **'Beneficiary'** in relation to a generating station means the person buying power generated at such a generating station on payment of Annual Fixed Charges; the term would include GEB in its present form till the unbundling is completed with transfer of assets.
- (vii) **'Block'** in relation to a combined cycle thermal generating station includes combustion turbine – generator(s), associated waste heat recovery boiler(s), connected steam turbine – generator and auxiliaries;
- (viii) **"Board"** means a Gujarat Electricity Board, constituted under sub section 1 of Section 5 of the Electricity (Supply) Act, 1948
  
- (viii) **'Commission'** means the Gujarat Electricity Regulatory Commission referred to in Section 82 of the Act;
  
- (ix) **'Consumer'** means the consumer as defined in the Act;
  
- (x) **'Control Period'** means the period before which long term tariff principles for distribution entities take effect.
  
- (xi) **'Cut off Date'** means the date of first financial year closing after one year of the date of commercial operation of the generating station;
  
- (xii) **'Date of Commercial Operation' or 'COD'** in relation to a unit means the date declared by the generator after demonstrating the Maximum Continuous Rating (MCR) or Installed Capacity (IC) through a successful trial run after notice to the beneficiaries and in relation to the generating station the date of commercial operation means the date of commercial operation of the last unit or block of the generating station;
  
- (xiii) **'Declared Capacity' or 'DC'** means 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;

## **Note**

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.

(xii) **'Existing Generating Station'** means a generating station declared under commercial operation from a date prior to notified date of the tariff regulations by the Commission as per regulation 1(2);

(xiii) **'Gross Calorific Value'** or **'GCV'** in relation to a thermal power 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 meter of gaseous fuel, as the case may be;

(xiv) **'Gross Station Heat Rate'** or **'GHR'** means the heat energy input in kCal required to generate one kWh of electrical energy at generator terminals;

(xv) **'Infirm Power'** means electricity generated prior to commercial operation of the unit of a generating station;

(xvi) **'Installed Capacity'** or **'IC'** means the summation of the name plate capacities of all the units of the generating station or the capacity of the generating station (reckoned at the generator terminals) as approved by the Commission from time to time;

(xvii) **'Maximum Continuous Rating'** or **'MCR'** in relation to a unit of the thermal power generating station means the maximum continuous output at the generator terminals, guaranteed by the manufacturer at rated parameters, and in relation to a unit or block of a combined cycle thermal power generating station means the maximum continuous output at the generator terminals, guaranteed by the manufacturer with water/steam injection (if applicable) and corrected to 50 Hz grid frequency and specified site conditions;

(xviii) **'Operation and Maintenance Expenses'** or **'O&M Expenses'** means the expenditure incurred on operation and maintenance of the generating station, including part thereof, and includes the expenditure on manpower, repairs, spares, consumables, utility expenses, insurance and overheads;

(xix) **'Original Project Cost'** means the actual expenditure incurred by the generating company, as per the original scope of the project up to the first financial year closing after one year of the date of commercial operation of the last unit as admitted by the Commission for determination of tariff; For the purpose of existing stations of bundled/ integrated utilities, it will mean the asset value as specified in the opening balance sheet of the successor entity.

(xx) **'Plant Load Factor'** or **'PLF'** for a given period, means the total sent out energy corresponding to scheduled generation during the period, expressed as a percentage of sent out energy corresponding to installed capacity in that period and shall be computed in accordance with the following formula:

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

where,

IC = Installed Capacity of the generating station in MW,

SG<sub>i</sub> = Scheduled Generation in MW for the i<sup>th</sup> time block of the period,

N = Number of time blocks during the period, and

AUX<sub>n</sub> = Normative Auxiliary Energy Consumption as a percentage of gross generation;

(xxi) '**Project**' means a generating station;

(xxii) '**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;

#### **Note**

For the gas turbine generating station or a combined cycle generating station if the average frequency for any time block, is below 49.52 Hz but not below 49.02 Hz and the scheduled generation is more than 98.5% of the declared capacity, the scheduled generation shall be deemed to have been reduced to 98.5% of the declared capacity, and if the average frequency for any time block is below 49.02 Hz and the scheduled generation is more than 96.5% of the declared capacity, the scheduled generation shall be deemed to have been reduced to 96.5% of the declared capacity.

(xxiii) '**Small Gas Turbine Power Generating Station**' means and includes gas turbine/combined cycle generating stations with gas turbines in the capacity range of 50 MW or below;

(xxiv) '**Unit**' in relation to a thermal power generating station means steam generator, turbine-generator and auxiliaries, or in relation to a combined cycle thermal power generating station, means turbine-generator and auxiliaries; and

(xxv) '**Year**' means a financial year.

(xxvi) 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.

14. **Components of Tariff:** (1) Tariff for sale of electricity from a thermal power generating station shall comprise of two parts, namely, the recovery of annual capacity (fixed) charges and energy (variable) charges.

(2) The annual capacity (fixed) charges shall consist of:

- (a) Interest on loan capital;
- (b) Depreciation, including Advance Against Depreciation;
- (c) Return on equity;
- (d) Operation and maintenance expenses; and
- (e) Interest on working capital.

(3) The energy (variable) charges shall cover fuel cost.

(4) where existing PPAs (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) lay down a different parameters, such parameters shall continue to govern the parties for the term of the contract, but not for any renewal of the contract or any extension of the term of the contract in accordance with its terms. Upon the expiry of the term of the existing PPA (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company), the parties shall be governed by the terms of the Regulations for the time being in force.

15. **Norms of Operation**: The norms of operation as given hereunder shall apply:

(i) **Target Availability for recovery of full Capacity (Fixed) charges**

- (a) All thermal power generating stations, 80%

**Note**

Recovery of capacity (fixed) charges below the level of target availability shall be on *pro rata* basis. At zero availability, no capacity charges shall be payable.

Further, where existing PPAs (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) lay down a different parameter like PLF for the recovery of the full fixed charges, such a parameter shall continue to govern the parties for the term of the contract, but not for any renewal of the contract or any extension of the term of the contract in accordance with its terms. Upon the expiry of the term of the existing PPA (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company), the parties shall be governed by the terms of the Regulations for the time being in force.

(ii) **Target Plant Load Factor for Incentive**

- (a) All thermal power generating stations, 80%

**Note:**

Further, where existing PPAs (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) lay down a different parameter like PLF for the recovery of the full fixed charges, such a parameter shall continue to govern the parties for the term of the contract, but not for any renewal of the contract or any extension of the term of the contract in accordance with its terms. Upon the expiry of the term of the existing PPA (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company), the parties shall be governed by the terms of the Regulations for the time being in force.

**(iii) Gross Station Heat Rate**

- (a) Coal-based thermal power generating stations, other than those covered under clauses (b) and (c) below

	<b>200/210/250 MW sets</b>	<b>500 MW and above</b>
	<b>sets</b>	
During stabilization period	2600 KCal/kWh	2550 KCal/kWh
Subsequent period	2500 KCal/kWh	2450 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 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.

For Coal Unit Sizes smaller than 210 MW, the Commission may allow a different normative heat rate, based on scrutiny of past operational performance.

**Note 3:**

Further, where existing PPAs (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) lay down a different parameter of Heat rate, such a parameter shall continue to govern the parties for the term of the contract, but not for any renewal of the contract or any extension of the term of the contract in accordance with its terms. Upon the expiry of the term of the existing PPA (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) the parties shall be governed by the terms of the Regulations for the time being in force.

(b) Lignite-fired thermal power generating stations

(1) For lignite-fired generating stations, the gross station heat rates specified under clause (a) above for coal-based thermal power generating stations shall be corrected, using multiplying factors as given below:

- (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 pro-rated 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.

(c) Gas Turbine/Combined Cycle generating stations

- (i) Existing generating stations

The normative heat rates shall be specified by the Commission

Note 1

The Commission for setting the normative rates may study past performance and performance of similar technology / size machines owned by other utilities outside the state, including CPSUs, IPPs, SEBs etc. Till the time such a study is completed, the normative heat rate shall be 2100 kCal/kWh under closed cycle operation.

(ii) Generating stations declared under commercial operation on or after 1.6.2004

	<u>Advanced Class</u> <u>E/EA/EC/E2 Class</u> <u>Machines</u>	<u>Machines</u>
Open cycle -	2685 kCal/kWh	2830 kCal/kWh
Combined cycle -	1850 kCal/kWh	1950 kCal/kWh

(iii) Small Gas Turbine Power Generating Stations:

The normative heat rates shall be specified by the Commission

Note 1

The Commission for setting the normative rates may study past performance and performance of similar technology / size machines owned by other utilities outside the state, including CPSUs, IPPs, SEBs etc.

**(iv) Secondary fuel oil consumption**

(a) Coal-based generating stations:

(i) All coal-based thermal power generating stations

<b>During Stabilization period</b>	<b>Subsequent period</b>
4.5 ml/kWh	2.0 ml/kWh

(b) Lignite-fired generating stations:

<b>During Stabilization period</b>	<b>Subsequent period</b>
<b>5.0 ml/kWh</b>	<b>3.0 ml/kWh</b>

Further, where existing PPAs (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) lay down a different parameter of secondary fuel consumption, such a parameter shall continue to govern the parties for the term of the contract, but not for any renewal of the contract or any extension of the term of the contract in accordance with its terms. Upon the expiry of the term of the existing PPA (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) , the parties shall be governed by the terms of the Regulations for the time being in force.

(v) **Auxiliary Energy Consumption**

(a) Coal-based generating stations:

	<b>With cooling tower</b>	<b>Without cooling tower</b>
(i) 200 MW series	9.0%	8.5%
(ii) 500 MW series		
Steam driven boiler feed pumps	7.5%	7.0%
Electrically driven boiler feed pumps	9.0%	8.5%

(b) Gas Turbine/Combined Cycle generating stations:

(i) Combined cycle	3.0%
(ii) Open cycle	1.0%

(c) Lignite-fired thermal power generating stations:

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

**Note**

During stabilization period, normative auxiliary consumption shall be reckoned at 0.5 percentage point more than the norms indicated at (a), (b) and (c) above.

The normative Auxiliary Consumption for Units smaller than 210 MW shall be specified by the Commission

Note 1

The Commission for setting the normative rates may study past performance and performance of similar technology / size machines owned by other utilities outside the state, including CPSUs, IPPs, SEBs etc.

Further, where existing PPAs (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) lay down a different parameter of auxiliary consumption, such a parameter shall continue to govern the parties for the term of the contract, but not for any renewal of the contract or any extension of the term of the contract in accordance with its terms. Upon the expiry of the term of the existing PPA (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company), the parties shall be governed by the terms of the Regulations for the time being in force.

**(vi) Stabilization period**

In relation to a unit, stabilization period shall be reckoned commencing from the date of commercial operation of that unit as follows, namely:

- |  |   |          |
|--|---|----------|
| (a) Coal-based and lignite-fired generating stations | - | 180 days |
| (b) Gas turbine/combined cycle generating stations   | - | 90 days  |

**Note**

The stabilization period and relaxed norms applicable during the stabilization period shall cease to apply from 1.4.2006.

16. **Capital Cost:** Subject to prudence check by the Commission, the actual expenditure incurred on completion of the project shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the generating

station and shall include capitalised initial spares subject to following ceiling norms as a percentage of the original project cost as on the cut off date:

- (i) Coal-based/lignite-fired generating stations - 2.5%
- (ii) Gas Turbine/Combined Cycle generating stations - 4.0%

Provided that where the power purchase agreement entered into between the generating company and the beneficiaries provides a ceiling of actual expenditure, the capital expenditure shall not exceed such ceiling for determination of tariff;

Provided further that in case of the existing generating stations, the capital cost admitted by the Commission prior to notified date of the tariff regulations by the Commission as per regulation 1(2) shall form the basis for determination of tariff. Further, the capital cost for unbundled generation stations shall be the asset value as per the opening balance sheet .

#### **Note**

Scrutiny of the project cost estimates by the Commission shall be limited to the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology, and such other matters for determination of tariff.

The application for the review of the capital cost may be forwarded to the Commission with the completion of Detailed project Report by the Project Sponsor's technical advisors.

17. **Additional capitalisation:** (1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 16;
- (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 original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff.

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 station.

(2) Subject to the provisions of clause (3) of this regulation, the capital expenditure of the following nature actually incurred after the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities relating to works/services within the original scope of work;
- (ii) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (iii) On account of change in law;
- (iv) Any additional works/services which have become necessary for efficient and successful operation of the generating station, but not included in the original project cost; and
- (v) Deferred works relating to ash pond or ash handling system in the original scope of work.

(3) Any expenditure on minor items/assets like normal tools and tackles, personal computers, furniture, air-conditioners, voltage stabilizers, refrigerators, fans, coolers, TV, washing machines, heat-convectors, carpets, mattresses etc. brought after the cut off date shall not be considered for additional capitalisation for determination of tariff with effect from notified date of the tariff regulations by the Commission as per regulation 1(2).

**Note**

The list of items is illustrative and not exhaustive.

(4) Impact of Additional Capitalisation in tariff revision may be considered by the Commission twice in a tariff period, including revision of tariff after the cut off date.

**Note 1**

Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 19.

**Note 2**

Any expenditure on replacement of old assets shall be considered after writing off the gross value of the original assets from the original project cost, except such items as are listed in clause (3) of this regulation.

### Note 3

Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 19.

### Note 4

Any expenditure admitted by the Commission for determination of tariff on renovation and modernization and life extension shall be serviced on normative debt-equity ratio specified in regulation 19 after writing off the original amount from the original project cost if any replacement of existing assets are involved.

18. **Sale of Infirm Power:** Any revenue (other than the recovery of fuel cost) earned by the generating company from sale of infirm power, shall be taken as reduction in capital cost and shall not be treated as revenue.

19. **Debt-Equity Ratio:** (1) In case of all generating stations, debt–equity ratio as on the date of commercial operation shall be 70:30 for determination of tariff. Provided that the Commission may in appropriate cases consider equity higher than 30% for the purpose of determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity more than 30% was in the interest of general public;

Provided that in case of a generating station where actual equity employed is less than 30%, the actual debt and equity shall be considered for determination of tariff.

Provided that in case of existing projects, the actual debt: equity shall be used for tariff determination. However, any expansion shall be governed as per regulation 19.

(2) The debt and equity amount arrived at in accordance with clause (1) shall be used for calculating interest on loan, return on equity, Advance Against Depreciation and Foreign Exchange Rate Variation.

20. **Computation of Capacity (Fixed) Charges:** (1) The capacity charges shall be computed on the following basis and their recovery shall be related to target availability.

(i) **Interest on loan capital**

(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in regulation 19

(b) Provided that in case of existing projects, the actual debt: equity shall be used for tariff determination and interest on loans shall be paid at actuals. However, any expansion shall be governed as per regulation 19.

(c) The generating company shall make every effort to swap the loan as long as it results in net benefit to the beneficiaries. The costs associated with such swapping shall be borne by the beneficiaries.

(d) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefit passed on to the beneficiaries.

(e) In case of any dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment as ordered by the Commission to the generating company during pendency of any dispute relating to swapping of loan.

(f) In case any moratorium period is availed of by the generating company, 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.

(g) The generating company shall not make any profit on account of swapping of loan and interest on loan.

(ii) **Depreciation, including Advance Against Depreciation**

(a) **Depreciation**

For the purpose of tariff, depreciation shall be computed in the following manner, namely:

(i) The value base for the purpose of depreciation shall be the historical cost of the asset;

(ii) Depreciation shall be calculated annually, based on straight line method over the useful life of the asset and at the rates prescribed by the Central Commission.

The residual life of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include Additional Capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government /Commission.

(iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

(iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on *pro rata* basis.

Further, where existing PPAs (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) lay down a different parameter of depreciation schedule, such a parameter shall continue to govern the parties for the term of the contract, but not for any renewal of the contract or any extension of the term of the contract in accordance with its terms. Upon the expiry of the term of the existing PPA (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company), the parties shall be governed by the terms of the Regulations for the time being in force.

(b) **Advance Against Depreciation**

In addition to allowable depreciation, the generating company shall be entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 20 (i) subject to a ceiling of 1/10<sup>th</sup> of loan amount as per regulation 19 minus depreciation as per schedule

Provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year;

Provided further that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.

All efforts should be made for aligning the tenure of long term debt with permissible rate of depreciation to reduce front loading of tariff through various mechanisms including resort to take out finance to elongate debt repayment period. Accordingly, there will be no need for any advance against depreciation.

(iii) **Return on Equity:**

Return on equity shall be computed on the equity base determined in accordance with regulation 19 @ 14% per annum.

Provided that in case of existing projects, the actual debt equity shall be used for tariff determination. However, any expansion shall be governed as per regulation 19.

Provided that equity invested in foreign currency shall be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

### **Explanation**

The premium raised by the generating company while issuing share capital and investment of internal resources created out of free reserve of the generating company, if any, for the funding of the project, 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 the capital expenditure of the generating station and forms part of the approved financial package. The definition of equity thus would involve all net worth deployed in the capital of the unit subject to a ceiling of debt equity ratio of 70:30 explained in Regulation 19. This would not include any revaluation reserves & subsidies.

Further, where existing PPAs (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) lay down a different parameter of ROE, such a parameter shall continue to govern the parties for the term of the contract, but not for any renewal of the contract or any extension of the term of the contract in accordance with its terms. Upon the expiry of the term of the existing PPA (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company), the parties shall be governed by the terms of the Regulations for the time being in force.

#### (iv) **Operation and Maintenance expenses**

Normative operation and maintenance expenses shall be as follows, namely:

##### (a) Coal-based generating stations

(Rs. in lakh/MW)

Year	200/210/250 MW sets	500 MW and above sets
------	---------------------	-----------------------

2004-05	10.40	9.36
2005-06	10.82	9.73
2006-07	11.25	10.12
2007-08	11.70	10.52
2008-09	12.17	10.95

**Note**

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

The normative O&M charges for Units smaller than 210 MW shall be specified by the Commission

**Note 1**

The Commission may for the purpose of specifying the normative rates, study past performance and performance of similar technology / size machines owned by other utilities outside the state, including CPSUs, IPPs, SEBs etc.:

(b) Gas Turbine/Combined Cycle generating stations

(Rs. in lakh/MW)

Year	Gas Turbine/Combined Cycle generating stations other than small gas turbine power generating stations		Small gas turbine power generating stations
	With warranty spares of 10 years	Without warranty spares	Without warranty spares
2004-05	5.20	7.80	9.46
2005-06	5.41	8.11	9.84
2006-07	5.62	8.44	10.24
2007-08	5.85	8.77	10.65
2008-09	6.08	9.12	11.07

(c) Lignite-fired generating stations

(Rs. in lakh/MW)

Year	200/210/250 MW series
2004-05	10.40
2005-06	10.82
2006-07	11.25
2007-08	11.70

2008-09	12.17
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**The normative O&M charges for Units smaller than 210 MW shall be specified by the Commission**

Note 1

The Commission may for the purpose of specifying the normative rates, study the past performance and performance of similar technology / size machines owned by other utilities outside the state, including CPSUs, IPPs, SEBs etc.:

Further, where existing PPAs (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) lay down a different parameter of O&M rates, such a parameter shall continue to govern the parties for the term of the contract, but not for any renewal of the contract or any extension of the term of the contract in accordance with its terms. Upon the expiry of the term of the existing PPA (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company), the parties shall be governed by the terms of the Regulations for the time being in force.

(v) **Interest on Working Capital**

(a) Working capital shall cover:

**Coal based/Lignite-fired generating stations**

- (i) Cost of coal or lignite for 1½ months for pit-head generating stations and two months for non-pit-head generating stations, corresponding to the target availability;
- (ii) Cost of secondary fuel oil for two months corresponding to the target availability;
- (iii) Operation and Maintenance expenses for one month;
- (iv) Maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation; and
- (v) Receivables equivalent to two months of fixed and variable charges for sale of electricity calculated on the target availability.

### **Gas Turbine/Combined Cycle generating stations**

- (i) Fuel cost for one month corresponding to the target availability duly taking into account the mode of operation of the generating station on gas fuel and liquid fuel;
- (ii) Liquid fuel stock for ½ month;
- (iii) Operation and maintenance expenses for one month;
- (iv) Maintenance spares at 1% of the historical cost escalated @ 6% per annum from the date of commercial operation ; and
- (v) Receivables equivalent to two months of fixed and variable charges for sale of electricity calculated on target availability.

(b) Rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2004 or on 1<sup>st</sup> April of the year in which the generating station or a unit thereof is declared under commercial operation, whichever is later. Interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency.

Further, where existing PPAs (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company) lay down a different methodology of interest calculation, such a method shall continue to govern the parties for the term of the contract, but not for any renewal of the contract or any extension of the term of the contract in accordance with its terms. Upon the expiry of the term of the existing PPA (including any changes, in the norms or parameters, made in the PPA following renegotiation between the Board and concerned generating company), the parties shall be governed by the terms of the Regulations for the time being in force.

(2) Full capacity charges shall be recoverable at target Availability specified in regulation 15. Recovery of capacity (fixed) charges below the level of target availability shall be on *pro rata* basis. At zero availability, no capacity charges shall be payable.

(3) The payment of capacity charges shall be on monthly basis in proportion to the allocated capacity.

#### 21. **Energy Charges:**

- (i) **Generating stations covered under ABT**

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

Energy Charges (Rs) = Rate of Energy Charges in Rs/kWh X Scheduled Energy (ex-bus) for the month in kWh corresponding to scheduled generation.

(ii) **Generating stations other than those covered under ABT**

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

Energy Charges (Rs) = Rate of Energy Charges in Rs/kWh X Energy delivered (ex-bus) for the month in kWh

Where,

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

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

Where,

$P_p$  = Price of primary fuel namely coal or lignite or gas or liquid fuel 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 per clause 15 (iv), as the case may be, and

$\text{AUX}_n$  = Normative Auxiliary Energy Consumption as % of gross generation as per clause 15 (v), as the case may be.

(iii) **Adjustment of rate of energy charge (REC) on account of variation in price or heat value of fuels**

Initially, Gross Calorific Value of coal/lignite or gas or liquid fuel shall be taken as per actuals of the preceding three months. Any variation shall be adjusted on month to month basis on the basis of Gross Calorific Value of coal/lignite or gas or liquid fuel received and burnt and landed cost incurred by the generating company for procurement of coal/lignite, oil, or gas or liquid fuel, as the case may be. No separate petition need to be filed with the Commission for fuel price adjustment. In case of any dispute, an appropriate application in accordance with Gujarat Electricity Regulatory Commission (Conduct of Business Regulations), 2004, as amended from time to time or any statutory re-enactment thereof, shall be made before the Commission.

(iv) **Landed Cost of Coal**

Subject to Regulation 2 (2) above, the landed cost of coal shall include price of coal corresponding to the grade/quality of coal inclusive of royalty, taxes and duties as applicable, transportation cost by rail/road or any other means, and, for the purpose of computation of energy charges, shall be arrived at after considering normative transit and handling losses as percentage of the quantity of coal dispatched by the coal supply company during the month as given below:

Pit head generating stations	:	0.3%
Non-Pit head generating stations	:	0.8%

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

23. **Unscheduled Interchange (UI):**

(1) Variation between actual generation or actual drawal and scheduled generation or scheduled drawal shall be accounted for through Unscheduled Interchange (UI) charges. UI for a generating station shall be equal to its actual generation minus its scheduled generation. UI for a beneficiary shall be equal to its total actual drawal minus its total scheduled drawal. UI shall be worked out for each 15-minute time block. Charges for all UI transactions shall be based on average frequency of the time block and the following rates shall apply.

Average frequency of time block (Hz)

<b>Below</b>	<b>Not below</b>	<b>UI Rate (Paise per kWh)</b>
----	50.50	0.0
50.50	50.48	6.0
50.48	50.46	12.0
-----	-----	-----
-----	-----	-----

49.84	49.82	204.0	
49.82	49.80	210.0	
49.80	49.78	219.0	
49.78	49.76	228.0	
----			----
----			----
49.04	49.02	561.0	
49.02	----		570.0

(Each 0.02 Hz step is equivalent to 6.0 paise/kWh in the 50.5-49.8 Hz frequency range, and to 9.0 paise/kWh in the 49.8-49.0 Hz frequency range.)

**Note**

The above average frequency range and UI rates are subject to change through a separate notification by the Commission.

(2) (i) Any generation up to 105% of the declared capacity in any time block of 15 minutes and averaging up to 101% of the average declared capacity over a day shall not be construed as gaming, and the generator shall be entitled to UI charges for such excess generation above the scheduled generation (SG).

(ii) For any generation beyond the prescribed limits, the Stated Load Despatch Centre shall investigate so as to ensure that there is no gaming, and if gaming is found by the State Load Despatch Centre, the corresponding UI charges due to the generating station on account of such extra generation shall be reduced to zero and the amount shall be adjusted in UI account of beneficiaries in the ratio of their capacity share in the generating station.”

24. **Rebate:** For payment of bills of capacity charges and energy charges through a letter of credit on presentation, a rebate of 2% shall be allowed. If the payments are made by a mode other than through a letter of credit but within a period of one month of presentation of bills by the generating company, a rebate of 1% shall be allowed.

25. **Late Payment Surcharge:** In case the payment of bills of capacity charges and energy charges by the beneficiary or beneficiaries is delayed beyond a period of 60 days from the date of billing, late payment surcharge at the rate of 1.25% per month shall be levied by the company.”

26. **Scheduling:**

Read with the provisions of Gujarat State Grid Code, the methodology of scheduling and calculating availability shall be as under:

(i) The generator shall make an advance declaration of capability of its generating station. The declaration shall be for that capability which can be actually made available.

The declaration shall be for the capability of the generating station to deliver ex-bus MW for the next day either as one figure for the whole day or as different figures for different periods of the day. The capability as declared by the generator, also referred to as the declared capacity, shall form the basis of generation scheduling.

(ii) While making or revising its declaration of capability, the generator shall ensure that the declared capability during peak hours is not less than that during other hours. However, exception to this rule shall be allowed in case of tripping/re-synchronisation of units as a result of forced outage of units.

(iii) Generation scheduling shall be done in accordance with the operating procedure stipulated in the Indian Electricity Grid Code.

(iv) Based on the declaration of the generator, the State Load Dispatch Centre shall communicate their shares to the beneficiaries out of which they shall give their requisitions.

(v) Based on the requisitions given by the beneficiaries and taking into account technical limitations on varying the generation and also taking into account transmission system constraints, if any, the State Load Dispatch Centre shall prepare the economically optimal generation schedules and drawal schedules and communicate the same to the generator and the beneficiaries.

The State Load Dispatch Centre shall also formulate the procedure for meeting contingencies both in the long run and in the short run (Daily scheduling).

(vi) The scheduled generation and actual generation shall be ex-bus at the generating station. For beneficiaries, the scheduled and actual net drawals shall be at their respective receiving points.

(vii) For calculating the net drawal schedules of beneficiaries, the transmission losses shall be apportioned to their drawal schedules for the time being.

Provided that a refinement may be specified by the Commission in future depending on the preparedness of the respective State Load Dispatch Centre.

(viii) In case of forced outage of a unit, the State Load Dispatch Centre shall revise the schedules on the basis of revised declared capability. The revised declared capability and the revised schedules shall become effective from the 4th time block, counting the time block in which the revision is advised by the generator to be the first one.

(ix) In the event of bottleneck in evacuation of power due to any constraint, outage, failure or limitation in the transmission system, associated switchyard and sub-stations owned by the State Transmission Utility or any other transmission licensee involved in intra-state transmission (as certified by the State Load Dispatch Centre ) necessitating reduction in generation, the State Load Dispatch

Centre shall revise the schedules which shall become effective from the 4th time block, counting the time block in which the bottleneck in evacuation of power has taken place to be the first one. Also, during the first, second and third time blocks of such an event, the scheduled generation of the generating station shall be deemed to have been revised to be equal to actual generation, and the scheduled drawals of the beneficiaries shall be deemed to have been revised to be equal to their actual drawals.

(x) In case of any grid disturbance, scheduled generation of all the generating stations and scheduled drawal of all the beneficiaries shall be deemed to have been revised to be equal to their actual generation/drawal for all the time blocks affected by the grid disturbance. Certification of grid disturbance and its duration shall be done by the State Load Dispatch Centre.

(xi) Revision of declared capability by the generator(s) and requisition by beneficiary(ies) for the remaining period of the day shall also be permitted with advance notice. Revised schedules/declared capability in such cases shall become effective from the 6th time block, counting the time block in which the request for revision has been received in the State Load Dispatch Centre to be the first one.

(xii) If, at any point of time, the State Load Dispatch Centre observes that there is need for revision of the schedules in the interest of better system operation, it may do so on its own, and in such cases, the revised schedules shall become effective from the 4th time block, counting the time block in which the revised schedule is issued by the State Load Dispatch Centre to be the first one.

(xiii) Generation schedules and drawal schedules issued/revised by the State Load Dispatch Centre shall become effective from designated time block irrespective of communication success.

(xiv) For any revision of scheduled generation, including post facto deemed revision, there shall be a corresponding revision of scheduled drawals of the beneficiaries.

(xv) A procedure for recording the communication regarding changes to schedules duly taking into account the time factor shall be evolved by the State Transmission Utility in consultation with SLDC as well as other stakeholders and it shall be to the extent possible in line with the prevailing practices at the national level

## **Note**

In case of a generating station, contracting to supply power to two or more States, the scheduling, metering and energy accounting shall be carried out by the Regional Load Dispatch Centre.

27. **Demonstration of Declared Capability:** (1) The generating company may be required to demonstrate the declared capability of its generating station as and when asked by the State Load Dispatch Centre of the state. In the event of the generating company failing to demonstrate the declared capability, the capacity charges due to the generator shall be reduced as a measure of penalty.

(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, the penalty shall be multiplied in the geometrical progression.

(3) The operating log books of the generating station shall be available for review by the SLDC. These books shall keep record of machine operation and maintenance.

28. **Metering and Accounting:** Metering arrangements, including installation, testing and operation and maintenance of meters and collection, transportation and processing of data required for accounting of energy exchanges and average frequency on 15 minute time block basis shall be organised by the State Transmission Utility/State Load Dispatch Centres. All concerned entities (in whose premises the special energy meters are installed), shall fully cooperate with the State Transmission Utility/State Load Dispatch Centre and extend the necessary assistance by taking weekly meter readings and transmitting them to the State Load Dispatch Centre.

Further SLDC will forward the necessary data / schedules to regional level in line with regulations formulated by Central Electricity Regulatory Commission. UI accounting procedures shall be governed by the orders of the Commission.

#### **Note**

In case of a generating station, contracting to supply power to two or more States, the scheduling, metering and energy accounting shall be carried out by the Regional Load Dispatch Centre.

29. **Billing and Payment of Capacity Charges:** Billing and payment of capacity charges shall be done on a monthly basis in the following manner:

- (i) Each beneficiary shall pay the capacity charges in proportion to its percentage share in Installed Capacity of the generating station. The beneficiaries could be the various distribution licensees or the trading companies.

#### **Note:**

If any capacity remains un-requisitioned during day-to-day operation, the State Load Dispatch Centre shall advise all beneficiaries in the region and the other State Load Dispatch Centres so that such capacity may be requisitioned through bilateral arrangements either with the concerned generating company or with the concerned beneficiary(ies) under intimation to the State Load Dispatch Centre.

The information regarding un-requisitioned capacity shall also be made available by the State Load Dispatch Centres through their respective websites.

(iv) The capacity charges shall be paid by the beneficiary(ies) to the generating company every month in accordance with the following formulas:

(a) Total Capacity charges payable to the thermal power generating company for the:

$$\begin{aligned}1^{\text{st}} \text{ month} &= (1 \times \text{ACC1})/12 \\2^{\text{nd}} \text{ month} &= (2 \times \text{ACC2} - 1 \times \text{ACC1})/12 \\3^{\text{rd}} \text{ month} &= (3 \times \text{ACC3} - 2 \times \text{ACC2})/12 \\4^{\text{th}} \text{ month} &= (4 \times \text{ACC4} - 3 \times \text{ACC3})/12 \\5^{\text{th}} \text{ month} &= (5 \times \text{ACC5} - 4 \times \text{ACC4})/12 \\6^{\text{th}} \text{ month} &= (6 \times \text{ACC5} - 5 \times \text{ACC5})/12 \\7^{\text{th}} \text{ month} &= (7 \times \text{ACC7} - 6 \times \text{ACC6})/12 \\8^{\text{th}} \text{ month} &= (8 \times \text{ACC8} - 7 \times \text{ACC7})/12 \\9^{\text{th}} \text{ month} &= (9 \times \text{ACC9} - 8 \times \text{ACC8})/12 \\10^{\text{th}} \text{ month} &= (10 \times \text{ACC10} - 9 \times \text{ACC9})/12 \\11^{\text{th}} \text{ month} &= (11 \times \text{ACC11} - 10 \times \text{ACC10})/12 \\12^{\text{th}} \text{ month} &= (12 \times \text{ACC12} - 11 \times \text{ACC11})/12\end{aligned}$$

(b) Each beneficiary having firm allocation in capacity of the generating station shall pay for the :

$$\begin{aligned}1^{\text{st}} \text{ month} &= [ \text{ACC1} \times \text{WB1} ]/1200 \\2^{\text{nd}} \text{ month} &= [2 \times \text{ACC2} \times \text{WB2} - 1 \times \text{ACC1} \times \text{WB1}]/1200 \\3^{\text{rd}} \text{ month} &= (3 \times \text{ACC3} \times \text{WB3} - 2 \times \text{ACC2} \times \text{WB2})/1200 \\4^{\text{th}} \text{ month} &= (4 \times \text{ACC4} \times \text{WB4} - 3 \times \text{ACC3} \times \text{WB3})/1200 \\5^{\text{th}} \text{ month} &= (5 \times \text{ACC5} \times \text{WB5} - 4 \times \text{ACC4} \times \text{WB4})/1200 \\6^{\text{th}} \text{ month} &= (6 \times \text{ACC5} \times \text{WB6} - 5 \times \text{ACC5} \times \text{WB5})/1200 \\7^{\text{th}} \text{ month} &= (7 \times \text{ACC7} \times \text{WB7} - 6 \times \text{ACC6} \times \text{WB6})/1200 \\8^{\text{th}} \text{ month} &= (8 \times \text{ACC8} \times \text{WB8} - 7 \times \text{ACC7} \times \text{WB7})/1200 \\9^{\text{th}} \text{ month} &= (9 \times \text{ACC9} \times \text{WB9} - 8 \times \text{ACC8} \times \text{WB8})/1200 \\10^{\text{th}} \text{ month} &= (10 \times \text{ACC10} \times \text{WB10} - 9 \times \text{ACC9} \times \text{WB9})/1200 \\11^{\text{th}} \text{ month} &= (11 \times \text{ACC11} \times \text{WB11} - 10 \times \text{ACC10} \times \text{WB10})/1200 \\12^{\text{th}} \text{ month} &= (12 \times \text{ACC12} \times \text{WB12} - 11 \times \text{ACC11} \times \text{WB11})/1200\end{aligned}$$

Where,

ACC1, ACC2, ACC3, ACC4, ACC5, ACC6, ACC7, ACC8, ACC9, ACC10, ACC11 and ACC12 are the amount of Annual Capacity Charge corresponding to 'Availability' for the cumulative period up to the end of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> months respectively.

And, WB1, WB2, WB3, WB4, WB5, WB6, WB7, WB8, WB9, WB10, WB11 and WB12 are the weighted average of percentage allocated capacity share of the beneficiary during the cumulative period up to 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> month respectively.

## CHAPTER 3

### HYDRO POWER GENERATING STATIONS

30. **Definitions:** Unless the context otherwise requires for the purpose of this chapter, :-

- (i) **'Act'** means the Electricity Act, 2003;
- (ii) **'Additional Capitalisation'** means the capital expenditure actually incurred after the date of commercial operation of the station and admitted by the Commission after prudence check subject to provisions of regulation 34;
- (iii) **'Authority'** means Central Electricity Authority referred to in Section 70 of the Act;
- (iv) **'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 generator terminals of all the units of the generating station;
- (v) **'Beneficiary'** in relation to a generating station means the person buying power generated at such a generating station on payment of annual capacity charges;
- (vi) **'Board'** means a Gujarat Electricity Board, constituted under sub section 1 of Section 5 of the Electricity (Supply) Act, 1948
- (vii) **'Capacity Index'** means the average of the daily capacity indices over one year;
- (viii) **'Commission'** means the Gujarat Electricity Regulatory Commission referred to in Section 82 of the Act;
- (ix) **'Cut off Date'** means after one year of the date of commercial operation of the generating station;
- (x) **'Date of Commercial Operation' or 'COD'** in relation to a unit means the date declared by the generator after demonstrating the Maximum Continuous Rating (MCR) or Installed Capacity (IC) through a successful trial run, after notice to the beneficiaries, and 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;

(xi) **'Daily Capacity Index'** means the declared capacity expressed as a percentage of the maximum available capacity for the day and shall be mathematically expressed as hereunder:

$$\text{Daily Capacity Index} = \frac{\text{Declared Capacity (MW)}}{\text{Maximum Available Capacity (MW)}} \times 100$$

Daily capacity index shall be limited to 100%.

(xii) **'Declared Capacity'** or **'DC'**

(a) For run-of-river power station with pondage and storage-type power stations, declared capacity means the ex-bus capacity in MW expected to be available from the generating station over the peaking hours of next day, as declared by the generator, taking into account the availability of water, optimum use of water and availability of machines and for this purpose, the peaking hours shall not be less than 3 hours within 24 hour period, and

(b) In case of purely run-of-river power stations, declared capacity means the ex-bus capacity in MW expected to be available from the generating station during the next day, as declared by the generating station, taking into account the availability of water, optimum use of water and availability of machines;

(xiii) **'Deemed Generation'** means the energy which a generating station was capable of generating but could not generate due to the conditions of grid or power system, beyond the control of generating station resulting in spillage of water;

(xiv) **'Design Energy'** means the quantum of energy, which could be generated in a 90% dependable year with 95% installed capacity of the generating station;

(xv) **'Existing Generating Station'** means a generating station declared under commercial operation from a date prior to 1.4.2005;

(xvi) **'Infirm Power'** means electricity generated prior to commercial operation of the unit of a generating station;

(xvii) **'Installed Capacity'** or **'IC'** means the summation of the name plate capacities of the units in the generating station or the capacity of the generating station (reckoned at the generator terminals) as approved by the Commission from time to time;

(xviii) **'Maximum Available Capacity'** means the following:

- (a) Run-of-river power station with pondage and storage type power stations

The maximum capacity in MW, the generating station can generate with all units running, under the prevailing conditions of water levels and flows, over the peaking hours of next day,

### **Explanation**

The peaking hours for this purpose shall not be less than 3 hours within a 24 hours period.

- (b) Purely run-of-river power stations

The maximum capacity in MW, the generating station can generate with all units running, under the prevailing conditions of water levels and flows over the next day.

(xix) **'Operation and Maintenance Expenses' or 'O&M Expenses'** means the expenditure incurred in operation and maintenance of the generating station, including part thereof, including the expenditure on manpower, repairs, spares, consumables, insurance and overheads;

(xx) **'Original Project Cost'** means the actual expenditure incurred by the generating company, as per the original scope of project up to first financial year closing after one year of the date of commercial operation of the last unit as admitted by the Commission for determination of tariff; For the purpose of existing stations of bundled/ integrated utilities, it will mean the asset value as specified in the opening balance sheet of the successor entity.

(xxi) **'Primary Energy '** means the quantum of energy generated up to the design energy on per year basis at the generating station;

(xxii) **'Project '** means a generating station and includes the complete hydro power generating facility covering all components such as dam, intake, water conductor system, power generating station and generating units of the scheme as apportioned to power generation;

(xxiii) **'Run-of-river power station'** means a hydro electric power generating station which has no upstream pondage;

(xiv) ‘ **Run –of-river power station with pondage**’ means a hydroelectric power generating station with sufficient pondage for meeting the diurnal variation of power demand;

(xxv) ‘ **Storage Type power station**’ means a hydro electric power generating station associated with large storage capacity to enable variation of generation of power according to demand;

(xxvi) ‘**Saleable Primary Energy**’ means the quantum of primary energy available for sale (ex-bus) after allowing for 12% free energy to the home state;

(xxvii) ‘**Secondary Energy**’ means the quantum of energy generated in excess of the design energy on per year basis at the generating station;

(xxviii) ‘**Saleable Secondary Energy**’ means the quantum of secondary energy available for sale (ex-bus) after allowing for 12% free energy to the home state;

(xxix) ‘**Scheduled Energy**’ means the quantum of energy to be generated at the generating station over the 24-hour period, as scheduled by the State Load Dispatch Centre;

(xxx) ‘**Year**’ means a financial year.

(xxxi) 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.

31. **Norms of Operation:** The norms of operation shall be as under, namely:

(i) **Normative capacity index for recovery of full capacity charges**

(a) **During first year of commercial operation of the generating station**

- |      |   |       |
|------|---|-------|
| (i)  | Purely Run-of-river power stations                        | - 85% |
| (ii) | Storage type and Run-of-river power stations with pondage | - 80% |

(b) **After first year of commercial operation of the generating station**

- |      |   |       |
|------|---|-------|
| (i)  | Purely Run-of –river power stations                       | - 90% |
| (ii) | Storage type and Run-of-river power stations with pondage | - 85% |

**Note**

There shall be *pro rata* recovery of capacity charges in case the generating station achieves capacity index below the prescribed normative levels. At Zero capacity index, no capacity charges shall be payable to the generating station.

(ii) **Auxiliary Energy Consumption :**

(a) Surface hydro electric power generating stations with rotating exciters mounted on the generator shaft - 0.2% of energy generated

(b) Surface hydro electric power generating stations with static excitation system - 0.5% of energy generated

(c) Underground hydro electric power generating stations with rotating exciters mounted on the generator shaft - 0.4% of energy generated

(d) Underground hydro electric power generating stations with static excitation system - 0.7% of energy generated

(iii) **Transformation losses**

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

32. **Capital Cost:** Subject to prudence check by the Commission, the actual expenditure incurred on completion of the project shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the generating station and shall include initial capital spares subject to a ceiling norm of 1.5% of the original project cost as on the cut off date.

Provided further that where the power purchase agreement entered into between the generating company and the beneficiaries provides a ceiling of actual expenditure, the capital expenditure shall not exceed such ceiling for determination of tariff.

In case of existing generating stations, the project cost admitted by the Commission prior to notified date of the tariff regulations by the Commission as per regulation 1(2) shall form the basis for determination of tariff.

**Note**

The scrutiny of the project cost estimates by the Commission shall be limited to the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology and such other matters for the purposes of determination of tariff.

33. **Additional capitalisation:** (1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission subject to prudence check.

- (i) Deferred liabilities,
- (ii) Works deferred for execution,
- (iii) Procurement of initial capital spares in the original scope of works subject to ceiling specified in regulation 31,
- (iv) Liabilities to meet award of arbitration or in compliance of the order or decree of a court, and
- (iv) On account of change in law.

Provided that original scope of works along with estimates of expenditure shall be submitted along with the application for provisional tariff.

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 generating station.

(2) Subject to the provision of clause (3) of this regulation, the capital expenditure of the following nature actually incurred after the cut off date may be admitted by the Commission subject to prudence check:

- (i) Deferred liabilities relating to works/services within the original scope of work;
- (ii) Liabilities to meet award of arbitration or in compliance of the order or decree of a court;
- (iii) On account of change in law; and
- (iv) Any additional works/service, which has become necessary for efficient and successful operation of plant but not included in the original capital cost.

(3) Any expenditure incurred on acquiring minor items/assets like tools and tackles, personal computers, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, T.V, washing machine, heat-convectors, mattresses, carpets, etc brought after the cut off date shall not be considered for additional capitalization for determination of tariff with effect from notified date of the tariff regulations by the Commission as per regulation 1(2).

**Note**

The list of items is illustrative and not exhaustive.

(4) Impact of additional capitalisation in tariff revision may be considered by the Commission twice in a tariff period, including revision of tariff after the cut off date.

### **Note 1**

Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 35.

### **Note 2**

Any expenditure on replacement of old assets shall be considered after writing off the gross value of the original assets from the original capital cost, except such items as are listed in Clause (3) of this regulation.

### **Note 3**

Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 35.

### **Note 4**

Any expenditure admitted on renovation and modernization and life extension shall be serviced on normative debt-equity ratio specified in regulation 35 after writing off the original amount of the replaced assets from the original capital cost.

34. **Sale of Infirm Power:** Any revenue earned by the generating company from sale of infirm power, shall be taken as reduction in capital cost and shall not be treated as revenue. The rate for infirm power shall be same as the primary energy rate of the generating station.

35. **Debt-Equity Ratio:** (1) In case of all generating stations, debt–equity ratio as on the date of commercial operation shall be 70:30 for determination of tariff. Provided further that the Commission may in appropriate cases consider equity higher than 30% for the purpose of determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity more than 30% was in the interest of general public;

Provided that in case actual equity employed is less than 30%, the actual debt and equity shall be considered for determination of tariff.

Provided that in case of existing projects, the actual debt: equity shall be used for tariff determination. However, any expansion shall be governed as per regulation 35.

(2) The debt and equity amounts arrived at in accordance with clause (1) shall be used for calculating interest on loan, return on equity, Advance Against Depreciation and Foreign Exchange Rate Variation.

36. **Computation of Annual Charges**: The two-part tariff for sale of electricity from a hydro power generating station shall comprise of recovery of annual capacity charge and primary energy charges:

- (i) **Capacity Charges**: The capacity charges shall be computed in accordance with the following formula:

$$\text{Capacity Charges} = (\text{Annual Fixed Charge} - \text{Primary Energy Charge})$$

**Note**

Recovery through Primary energy charge shall not be more than Annual Fixed Charge.

- (ii) **Annual Fixed Charges**: Annual Fixed Charges shall consist of:

- (a) Interest on loan capital;
- (b) Depreciation, including Advance Against Depreciation;
- (c) Return on equity;
- (d) Operation and maintenance expenses; and
- (e) Interest on working capital.

37. **Computation of Annual Fixed Charges**: The annual fixed charges shall be computed on the following basis:

- (i) **Interest on loan capital**

(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in regulation 35.

(b) Provided that in case of existing projects, the actual debt: equity shall be used for tariff determination. However, any expansion shall be governed as per regulation 35.

(c) The generating company shall make every effort to swap the loan as long as it results in net benefit to the beneficiaries. The costs associated with such swapping shall be borne by the beneficiaries.

(d) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefit passed on to the beneficiaries.

(e) In case of any dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment as ordered by the Commission to the generating company during pendency of any dispute relating to swapping of loan.

(f) In case any moratorium period is availed of by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and the interest on loan capital shall be calculated accordingly.

(g) The generating company shall not make any profit on account of swapping of loan and interest on loan.

(ii) **Depreciation, including Advance Against Depreciation**

(a) **Depreciation**

For the purpose of tariff, depreciation shall be computed in the following manner, namely:

(i) The value base for the purpose of depreciation shall be the historical cost of the asset.

(ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed by the Central Commission.

The residual life of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government/Commission.

(iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

(iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on *pro rata* basis.

(b) **Advance Against Depreciation**

In addition to allowable depreciation, the generating company shall be entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 36 (i) subject to a ceiling of 1/10<sup>th</sup> of loan amount as per regulation 35 minus depreciation as per schedule

Provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year;

Provided further that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.

All efforts should be made for aligning the tenure of long term debt with permissible rate of depreciation to reduce front loading of tariff through various mechanisms including resort to take out finance to elongate debt repayment period. Accordingly, there will be no need for any advance against depreciation.

(iii) **Return on Equity**

Return on equity shall be computed on the equity base determined in accordance with regulation 35 and shall be @ 14% per annum.

Provided that equity invested in any foreign currency shall be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

**Explanation**

The premium raised by the generating company while issuing share capital and investment of internal resources created out of free reserve of the existing generating station, if any, for the funding of the project, 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 the capital expenditure of the generating station and forms part of the approved financial package. The definition of equity thus would involve all net worth deployed in the capital of the unit. This would not include any revaluation reserves & subsidies.

(iv) **Operation and Maintenance expenses**

(a) The operation and maintenance expenses including insurance, for the existing generating stations which have been in operation for 5 years or more in the base year of 2005-06, shall be derived on the basis of actual operation and maintenance expenses for the years 1999-2000 to 2003-04,

based on the audited balance sheets, excluding abnormal operation and maintenance expenses, if any, after prudence check by the Commission.

The average of such normalised operation and maintenance expenses after prudence check, for the years 1999-2000 to 2003-04 considered as operation and maintenance expenses for the year 2000-01 shall be escalated at the rate of 4% per annum to arrive at operation and maintenance expenses for the base year 2005-06.

(b) In case of the hydro electric generating stations, which have not been in existence for a period of five years, the operation and maintenance expenses shall be fixed at 1.5% of the capital cost as admitted by the Commission and shall be escalated at the rate of 4% per annum from the subsequent year to arrive at operation and maintenance expenses for the base year 2003-04. The base operation and maintenance expenses shall be further escalated at the rate of 4% per annum to arrive at permissible operation and maintenance expenses for the relevant year.

(c) In case of the hydro electric generating stations declared under commercial operation on or after notified date of the tariff regulations by the Commission as per regulation 1(2), the base operation and maintenance expenses shall be fixed at 1.5% of the actual capital cost as admitted by the Commission, in the year of commissioning and shall be subject to an annual escalation of 4% per annum for the subsequent years.

(v) **Interest on Working Capital**

(a) Working Capital shall cover:

(i) Operation and Maintenance expenses for one month;

(ii) Maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation; and

(iii) Receivables equivalent to two months of fixed charges for sale of electricity, calculated on normative capacity index.

(b) Rate of interest on working capital shall be the short-term Prime Lending Rate of State Bank of India as on 1.4.2004 or on 1<sup>st</sup> April of the year in which the generating unit/station is declared under commercial operation, whichever is later. The interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency.

38. **Primary and Secondary Energy Charges:** (1) Primary energy charge shall be worked out on the basis of paise per kWh rate on ex-bus energy scheduled to be sent out from the hydro electric power generating station after adjusting for free power delivered to the home state.

(2) Rate of primary energy for all hydro electric power generating stations, except for pumped storage generating stations, shall be equal to the lowest variable charges of the central sector thermal power generating station of the concerned region. The primary energy charge shall be computed based on the primary energy rate and saleable energy of the station.

Provided that in case the primary energy charge recoverable by applying the above primary energy rate exceeds the Annual Fixed Charge of a generating station, the primary energy rate for such generating station shall be calculated by the following formula:

$$\text{Primary energy rate} = \frac{\text{Annual Fixed Charge}}{\text{Saleable Primary Energy}}$$

(3) Primary Energy Charge = Saleable Primary Energy x Primary Energy Rate

Secondary Energy Rate shall be equal to Primary Energy Rate.  
Secondary Energy Charge = Saleable Secondary Energy x Secondary Energy Rate.

39. **Incentive:** (1) Incentive shall be payable in case of all the generating stations, including in case of new generating stations in the first year of operation, when the capacity index (CI) exceeds 90% for purely run-of-river power generating stations and 85% for run-of-river power station with pondage or storage type power generating stations and incentive shall accrue up to a maximum capacity index of 100%.

(2) Incentive shall be payable to the generating company in accordance with the following formula:

$$\text{Incentive} = 0.65 \times \text{Annual Fixed Charge} \times (\text{CI}_A - \text{CI}_N)/100$$

(If incentive is negative, it shall be set to zero.)

Where,  $\text{CI}_A$  is the Capacity Index achieved and  $\text{CI}_N$  is the normative capacity index whose values are 90% for purely run of the river hydro stations and 85% for pondage/storage type hydro generating stations.

(3) The incentives on account of capacity index and payment for secondary energy shall be payable on monthly basis, subject to cumulative adjustment in each month of the financial year, separately in respect of each item, and final adjustment shall be made at the end of the financial year.

(4) The total incentive payment calculated on annual basis shall be shared by the beneficiaries based on the allocated capacity.

(5) Incentive for completion of hydroelectric power generating stations ahead of schedule

In case of commissioning of a hydro electric power generating station or part thereof ahead of schedule, as set out in the first approval of the Central Government or the techno-economic clearance of the Authority, as applicable, the generating station shall become eligible for incentive for an amount equal to *pro rata* reduction in interest during construction, achieved on commissioning ahead of the schedule. The incentive shall be recovered through tariff in twelve equal monthly installments during the first year of operation of the generating station. In case of delay in commissioning as set out in the first approval of the Central Government or the techno-economic clearance of the Authority, as applicable, interest during construction for the period of delay shall not be allowed to be capitalised for determination of tariff, unless the delay is on account of natural calamities or geological surprises.

40. **Deemed Generation:** (1) In case of reduced generation due to the reasons beyond the control of generating company or on account of non-availability of Board's/transmission licensee's transmission lines or on receipt of backing down instructions from the concerned State Load Dispatch Centre resulting in spillage of water, the energy charges on account of such spillage shall be payable to the generating company. Apportionment of energy charges for such spillage among the beneficiaries shall be in proportion of their shares in saleable capacity of the generating station.

(2) Energy charges on the above account shall not be admissible if the energy generated during the year is equal to or more than the design energy.

41. **Unscheduled Interchange (UI):**

1) Variation between actual generation or actual drawal and scheduled generation or scheduled drawal shall be accounted for through Unscheduled Interchange (UI) charges. UI for a generating station shall be equal to its actual generation minus its scheduled generation. UI for a beneficiary shall be equal to its total actual drawal minus its total scheduled drawal. UI shall be worked out for each 15-minute time block. Charges for all UI transactions shall be based on average frequency of the time block and the following rates shall apply.

Average frequency of time block (Hz)

Below	Not below	UI Rate (Paise per kWh)
----	50.50	0.0
50.50	50.48	6.0
50.48	50.46	12.0
-----	-----	-----
-----	-----	-----
49.84	49.82	204.0
49.82	49.80	210.0
49.80	49.78	219.0

49.78	49.76	228.0	
-----	-----		-----
-----	-----		-----
49.04	49.02	561.0	
49.02	-----		570.0

(Each 0.02 Hz step is equivalent to 6.0 paise/kWh in the 50.5-49.8 Hz frequency range, and to 9.0 paise/kWh in the 49.8-49.0 Hz frequency range.)

**Note**

The above average frequency range and UI rates are subject to change through a separate notification by the Commission.

(2) (i) Any generation up to 105% of the declared capacity in any time block of 15 minutes and averaging up to 101% of the average declared capacity over a day shall not be construed as gaming, and the generator shall be entitled to UI charges for such excess generation above the scheduled generation (SG).

(ii) For any generation beyond the prescribed limits, the State Load Despatch Centre shall investigate so as to ensure that there is no gaming, and if gaming is found by the State Load Despatch Centre, the corresponding UI charges due to the generating station on account of such extra generation shall be reduced to zero and the amount shall be adjusted in UI account of beneficiaries in the ratio of their capacity share in the generating station.”

42. **Rebate:** For payment of bills of capacity charge and energy charge through the letter of credit on presentation, a rebate of 2% shall be allowed. If the payments are made by a mode other than through the letter of credit but within a period of one month of presentation of bills by the generating company, a rebate of 1% shall be allowed.

43. **Late Payment Surcharge:** In case the payment of bills of capacity charges and energy charges by the beneficiary or beneficiaries is delayed beyond a period of 60 days from the date of billing, late payment surcharge at the rate of 1.25% per month shall be levied by the company.”

44. **Scheduling:** Read with the provisions of Gujarat State Grid Code, the methodology of scheduling and calculating capacity index shall be as under:

(i) The generator shall make an advance declaration of capacity of its generating station. The declaration shall be for that capacity which can be actually made available for a period of time not less than 3 hours within a 24 hours period for pondage and storage type of stations and for the entire day for purely run-of-river type stations.

(ii) The generator shall intimate the declared capacity (MW), for the next day, either as one figure for the whole day or different figures for different periods of

the day along with maximum available capacity (MW) and total energy (MWh) ex-bus to the State Load Dispatch Centre.

The declaration should also include limitation on generation during specific time periods, if any, on account of restriction(s) on water use due to irrigation, drinking water, industrial, environmental considerations etc.

(iii) While making or revising his declaration of capability, the generator shall ensure that the declared capacity during peak hours is not less than that during other hours. However, exception to this rule shall be allowed in case of tripping/re-synchronisation of units as a result of forced outage of units.

(iv) Generation scheduling shall be done in accordance with the operating procedure, as stipulated in the Gujarat Grid Code.

(v) Based on the declaration of the generator, the State Load Dispatch Centre shall communicate their shares to the beneficiaries out of which they shall give their requisitions.

(vi) Based on the requisitions given by the beneficiaries and taking into account technical limitations on varying the generation and also taking into account transmission system constraints, if any, the State Load Dispatch Centre shall prepare the economically optimal generation schedules and drawal schedules and communicate the same to the generator and the beneficiaries.

The State Load Dispatch Centre shall also formulate the procedure for meeting contingencies both in the long run and in the short run (Daily scheduling).

(vii) The scheduled generation and actual generation shall be ex-bus at the generating station. For beneficiaries, the scheduled and actual net draws shall be at their respective receiving points.

(viii) For calculating the net drawal schedules of beneficiaries, the transmission losses shall be apportioned to their drawal schedule for the time being. However, a refinement may be specified by the Commission in future, depending upon the preparedness of the respective State Load Dispatch Centre.

(ix) In case of forced outage of a unit, the State Load Dispatch Centre shall revise the schedules on the basis of revised declared capability. The revised declared capability and the revised schedules shall become effective from the 4th time block, counting the time block in which the revision is advised by the generator to be the first one.

(x) In the event of bottleneck in evacuation of power due to any constraint, outage, failure or limitation in the transmission system, associated switchyard and sub-stations owned by the State Transmission Utility or any other transmission licensee involved in inter-state transmission (as certified by the State Load Dispatch Centre) necessitating reduction in generation, the Regional Load

Dispatch Centre shall revise the schedules which shall become effective from the 4th time block, counting the time block in which the bottleneck in evacuation of power has taken place to be the first one. Also, during the first, second and third time blocks of such an event, the scheduled generation of the generating station shall be deemed to have been revised to be equal to actual generation, and the scheduled drawals of the beneficiaries shall be deemed to have been revised to be equal to their actual drawals.

(xi) In case of any grid disturbance, scheduled generation of all the generating stations and scheduled drawal of all the beneficiaries shall be deemed to have been revised to be equal to their actual generation/drawal for all the time blocks affected by the grid disturbance. Certification of grid disturbance and its duration shall be done by the State Load Dispatch Centre.

(xii) Revision of declared capability by the generator(s) and requisition by beneficiary(ies) for the remaining period of the day shall also be permitted with advance notice. Revised schedules/declared capability in such cases shall become effective from the 6th time block, counting the time block in which the request for revision has been received in the State Load Dispatch Centre to be the first one.

(xiii) If, at any point of time, the State Load Dispatch Centre observes that there is need for revision of the schedules in the interest of better system operation, it may do so on its own and in such cases, the revised schedules shall become effective from the 4th time block, counting the time block in which the revised schedule is issued by the State Load Dispatch Centre to be the first one.

(xiv) Generation schedules and drawal schedules issued/revised by the Regional Load Dispatch Centre shall become effective from designated time block irrespective of communication success.

(xv) For any revision of scheduled generation, including post facto deemed revision, there shall be a corresponding revision of scheduled drawals of the beneficiaries.

(xvi) A procedure for recording the communication regarding changes to schedules duly taking into account the time factor shall be evolved by the State Transmission Utility.

(xvii) Purely run-of-river power stations

Since variation of generation in such stations may lead to spillage, these shall be treated as must run stations. The maximum available capacity, duly taking into account the over load capability, must be equal to or greater than that required to make full use of the available water.

(xviii) Run-of-river power station with pondage and storage type power stations

These hydro stations are designed to operate during peak hours to meet system peak demand. Maximum available capacity of the station declared for the day shall be equal to the installed capacity including overload capability, minus auxiliary consumption and transformation losses, corrected for the reservoir level. The Regional Load Dispatch Centres shall ensure that generation schedules of such type of stations are prepared and the stations dispatched for optimum utilization of available hydro energy except in the event of specific system requirements/constraints.

45. **Demonstration of Declared Capability:** (1) The generating company may be required to demonstrate the declared capacity of its generating station as and when asked by the State Load Dispatch Centre of the region in which the generating station is situated. In the event of the generating company failing to demonstrate the declared capacity, within the tolerance as specified by the Central Transmission Utility, the capacity charges due to the generating station shall be reduced as a measure of penalty.

(2) The quantum of penalty for the first mis-declaration for any duration or 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, the penalty shall be multiplied in the geometrical progression.

(3) The operating log books of the generating station shall be available for review by the State Load Dispatch Centre. These books keep record of machine operation and maintenance, reservoir level and spillway gate operation.

46. **Metering and Accounting:** Metering arrangements, including installation, testing and operation and maintenance of meters and collection, transportation and processing of data required for accounting of energy exchanges and average frequency on 15 minute time block basis shall be organised by the State Transmission Utility/State Load Dispatch Centres. All concerned entities (in whose premises the special energy meters are installed), shall fully cooperate with the State Transmission Utility/State Load Dispatch Centre and extend the necessary assistance by taking weekly meter readings and transmitting them to the State Load Dispatch Centre.

Further SLDC will forward the necessary data / schedules to regional level in line with regulations formulated by Central Electricity Regulatory Commission. UI accounting procedures shall be governed by the orders of the Commission.

47. **Billing and Payment of Capacity Charges:** Billing and payment of capacity charges shall be done on a monthly basis in the following manner:

(i) Each beneficiary shall pay the capacity charges in proportion to its percentage share in total saleable capacity of the generating station. Saleable capacity shall mean total capacity minus free capacity to the state, if any.

The beneficiaries could be the present SEB continuing or the various distribution licensees or the trading companies. As per the Transfer Scheme, for GEB successor entities, the Board shall continue to be the beneficiary.

(iii) If any capacity remains un-requisitioned during day-to-day operation, the State Load Dispatch Centre shall advise all beneficiaries in the region and the other State Load Dispatch Centres so that such capacity may be requisitioned through bilateral arrangements either with the concerned generating company or the concerned beneficiary(ies) under intimation to the State Load Dispatch Centre.

The information regarding un-requisitioned capacity shall also be made available by the State Load Dispatch Centres through their respective websites.

(iv) The capacity charges shall be paid by the beneficiary(ies) including those outside the region to the generating company every month in accordance with the following formulas and in proportion to their respective shares in the concerned generating station:

$$\begin{aligned}
 ACC_1 &= AFC - (SPE_1 + DE_{2nd\ to\ 12th\ months}) * Primary\ Energy\ Rate \\
 ACC_2 &= AFC - (SPE_2 + DE_{3rd\ to\ 12th\ months}) * Primary\ Energy\ Rate \\
 ACC_3 &= AFC - (SPE_3 + DE_{4th\ to\ 12th\ months}) * Primary\ Energy\ Rate \\
 ACC_4 &= AFC - (SPE_4 + DE_{5th\ to\ 12th\ months}) * Primary\ Energy\ Rate \\
 ACC_5 &= AFC - (SPE_5 + DE_{6th\ to\ 12th\ months}) * Primary\ Energy\ Rate \\
 ACC_6 &= AFC - (SPE_6 + DE_{7th\ to\ 12th\ months}) * Primary\ Energy\ Rate \\
 ACC_7 &= AFC - (SPE_7 + DE_{8th\ to\ 12th\ months}) * Primary\ Energy\ Rate \\
 ACC_8 &= AFC - (SPE_8 + DE_{9th\ to\ 12th\ months}) * Primary\ Energy\ Rate \\
 ACC_9 &= AFC - (SPE_9 + DE_{10th\ to\ 12th\ months}) * Primary\ Energy\ Rate \\
 ACC_{10} &= AFC - (SPE_{10} + DE_{11th\ to\ 12th\ months}) * Primary\ Energy\ Rate \\
 ACC_{11} &= AFC - (SPE_{11} + DE_{12th\ month}) * Primary\ Energy\ Rate \\
 ACC_{12} &= (AFC - SPE_{12}) * Primary\ Energy\ Rate
 \end{aligned}$$

Where,

AFC = Annual Fixed Charges

ACC<sub>1</sub>, ACC<sub>2</sub>, ACC<sub>3</sub>, ACC<sub>4</sub>, ACC<sub>5</sub>, ACC<sub>6</sub>, ACC<sub>7</sub>, ACC<sub>8</sub>, ACC<sub>9</sub>, ACC<sub>10</sub>, ACC<sub>11</sub> and ACC<sub>12</sub> are the amount of Annual Capacity Charge for the cumulative period up to the end of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> months respectively.

SPE<sub>1</sub>, SPE<sub>2</sub>, SPE<sub>3</sub>,..... SPE<sub>12</sub> are the ex-bus scheduled primary energy values up to 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> .....12<sup>th</sup> months of the year respectively.

$$CC1 = ACC_1 \times \frac{DE1}{DE}$$

$$CC2 = ACC_2 \times \frac{DE2}{DE}$$

$$CC3 = ACC_3 \times \frac{DE3}{DE}$$

$$CC4 = ACC_4 \times \frac{DE4}{DE}$$

$$CC5 = ACC_5 \times \frac{DE5}{DE}$$

$$CC6 = ACC_6 \times \frac{DE6}{DE}$$

$$CC7 = ACC_7 \times \frac{DE7}{DE}$$

$$CC8 = ACC_8 \times \frac{DE8}{DE}$$

$$CC9 = ACC_9 \times \frac{DE9}{DE}$$

$$CC10 = ACC_{10} \times \frac{DE10}{DE}$$

$$CC11 = ACC_{11} \times \frac{DE11}{DE}$$

$$CC12 = ACC_{12} \times \frac{DE12}{DE}$$

Where,

CC1, CC2, CC3,.....CC12 is the monthly capacity charge up to 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> .....12<sup>th</sup> months of the year respectively.

DE = Annual Design Energy

DE1, DE2, DE3, .....DE12 are the ex-bus design energy values up to 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> .....12<sup>th</sup> months of the year respectively.

Total capacity charges payable to the generator for the:

$$1^{st} \text{ month} = (CC1)$$

$$2^{nd} \text{ month} = (CC2 - CC1)$$

$$3^{rd} \text{ month} = (CC3 - CC2)$$

$$4^{th} \text{ month} = (CC4 - CC3)$$

$$5^{th} \text{ month} = (CC5 - CC4)$$

$$6^{th} \text{ month} = (CC6 - CC5)$$

$$7^{th} \text{ month} = (CC7 - CC6)$$

$$8^{th} \text{ month} = (CC8 - CC7)$$

$$9^{th} \text{ month} = (CC9 - CC8)$$

$$10^{th} \text{ month} = (CC10 - CC9)$$

$$11^{th} \text{ month} = (CC11 - CC10)$$

$$12^{th} \text{ month} = (CC12 - CC11)$$

and, each beneficiary having firm allocation in capacity of the generating station shall pay for the :

$$1^{st} \text{ month} = [ CC1 \times WB1 ] / 100$$

$$\begin{aligned}
2^{\text{nd}} \text{ month} &= [\text{CC2} \times \text{WB2} - \text{CC1} \times \text{WB1}] / 100 \\
3^{\text{rd}} \text{ month} &= (\text{CC3} \times \text{WB3} - \text{CC2} \times \text{WB2}) / 100 \\
4^{\text{th}} \text{ month} &= (\text{CC4} \times \text{WB4} - \text{CC3} \times \text{WB3}) / 100 \\
5^{\text{th}} \text{ month} &= (\text{CC5} \times \text{WB5} - \text{CC4} \times \text{WB4}) / 100 \\
6^{\text{th}} \text{ month} &= (\text{CC6} \times \text{WB6} - \text{CC5} \times \text{WB5}) / 100 \\
7^{\text{th}} \text{ month} &= (\text{CC7} \times \text{WB7} - \text{CC6} \times \text{WB6}) / 100 \\
8^{\text{th}} \text{ month} &= (\text{CC8} \times \text{WB8} - \text{CC7} \times \text{WB7}) / 100 \\
9^{\text{th}} \text{ month} &= (\text{CC9} \times \text{WB9} - \text{CC8} \times \text{WB8}) / 100 \\
10^{\text{th}} \text{ month} &= (\text{CC10} \times \text{WB10} - \text{CC9} \times \text{WB9}) / 100 \\
11^{\text{th}} \text{ month} &= (\text{CC11} \times \text{WB11} - \text{CC10} \times \text{WB10}) / 100 \\
12^{\text{th}} \text{ month} &= (\text{CC12} \times \text{WB12} - \text{CC11} \times \text{WB11}) / 100
\end{aligned}$$

Where,

And, WB1, WB2, WB3, WB4, WB5, WB6, WB7, WB8, WB9, WB10, WB11 and WB12 are the weighted average of percentage allocated capacity share of the beneficiary during the cumulative period up to 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> month respectively.

## CHAPTER 4

### Intra-State Transmission

48. **Definitions:** Unless the context otherwise requires, for the purpose of this chapter, :-

- (i) **'Act'** means the Electricity Act, 2003;
- (ii) **'Additional Capitalisation'** means the capital expenditure actually incurred after the date of commercial operation of the transmission system and admitted by the Commission after prudence check subject to regulation 53;
- (iii) **'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;

Allotted Transmission Capacity to a long-term transmission customer shall be sum of the generating capacities allocated to the long-term transmission customer from Generating Station and the contracted power, if any;

Provided further that since GEB is undergoing unbundling and restructuring, the provisions of these regulations shall be applicable from the date of operationalisation of separate transmission company. GEB / Successor Discoms shall have deemed allotted capacity till the time a formal capacity allocation is made.

- (iv) **'Authority'** means Central Electricity Authority referred to in section 70 of the Act;
- (v) **'Availability'** in relation to a transmission system for a given period means the time in hours during that period the transmission system is capable to transmit electricity at its rated voltage and shall be expressed in percentage of total hours in the given period and shall be calculated as per the procedure prescribed by the Central Commission.
- (vi) **'Commission'** means the Gujarat Electricity Regulatory Commission referred to in Section 82 of the Act;
- (vii) **'Contracted Power'** means the power 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;

- (viii) **'Cut off Date'** means the date of first financial year closing after one year of the date of commercial operation of the transmission system.
- (ix) **'Date of Commercial Operation' or 'COD'** means the date of charging the project or part thereof to its rated voltage level or seven days after the date on which it is declared ready for charging by the transmission licensee, but is not able to be charged for reasons not attributable to the transmission licensee, its suppliers or contractors.

Provided that the date of commercial operation shall not be a date prior to the scheduled date of commercial operation mentioned in the implementation agreement or the transmission service agreement or the investment approval, as the case may be, unless mutually agreed to by all parties.

- (x) **'Existing Project'** means the project declared under commercial operation from a date prior to notified date of the tariff regulations by the Commission as per regulation 1(2);
- (xi) **'Implementation Agreement'** means the agreement, contract or memorandum of understanding, or any such covenant, entered into between the transmission licensee and the long-term transmission customers for construction of the project;
- (xii) **'Generating Station'** has the meaning as assigned in the Gujarat Electricity Grid Code approved/notified by the Commission
- (xiii) **'Long-Term Transmission Customer'** means a person availing or intending to avail access to the intra-state transmission system for a period of twenty five years or more;
- (xiv) **'Original Project Cost'** means the actual expenditure incurred by the transmission licensee, as per the original scope of project up to first financial year closing after one year of the date of commercial operation of the last element as admitted by the Commission for the purpose of tariff; Provided For the purpose of existing stations of bundled/ integrated utilities, it will mean the asset value as specified in the opening balance sheet of the successor entity.
- (xv) **'Operation and Maintenance Expenses' or 'O&M Expenses'** means the expenditure incurred in operation and maintenance of the transmission system, including part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads;
- (xvi) **'Project'** includes the transmission system comprising specified transmission lines, sub-stations and associated equipment;

- (xvii) **'Rated Voltage'** means the manufacturers 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 long-term transmission customers;
- (xviii) **'Short-Term Transmission Customer'** means a transmission customer other than the long-term transmission customer;
- (xix) **'Transmission Service Agreement '** means the agreement, contract, memorandum of understanding, or any such covenant, entered into between the transmission licensee and the long-term transmission customers for the operational phase of the project;
- (xx) **'Transmission licensee'**, means a person granted licence for intra-state transmission of electricity and includes any person deemed to be a transmission licensee for inter-state transmission of electricity;
- (xxi) **'Transmission System'** means a line with associated sub-stations or a group of lines inter-connected together along with associated sub-stations and the term includes equipment associated with transmission lines and sub-stations;
- (xxii) **'Year'** means a financial year.
- (xxiii) **"Board"** means a Gujarat Electricity Board, constituted under sub section 1 of Section 5 of the Electricity (Supply) Act, 1948
- (xxiv) 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.

**49. Auxiliary Energy Consumption in the sub-station**

The charges for auxiliary energy consumption in the AC sub-station for the purpose of air-conditioning, lighting, technical consumption, etc. shall be borne by the transmission licensee as part of its normative operation and maintenance expenses.

**50. Target Availability for recovery of full transmission charges**

- (1) AC system : 98%
- (2) HVDC bi-pole links and HVDC back-to-back stations: 95%

**Note 1**

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

51. **Capital Cost:** (1) Subject to prudence check by the Commission, the actual expenditure incurred on completion of the project shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the transmission system and shall include capitalised initial spares subject to a ceiling norm as 1.5% of original project cost.

Provided that where the implementation agreement or the transmission service agreement entered into between the transmission licensee and the long-term transmission customers provides a ceiling of actual expenditure, the capital expenditure shall not exceed such ceiling for determination of tariff.

(2) In case of the existing projects, the project cost admitted by the Commission prior to notified date of the tariff regulations by the Commission as per regulation 1(2) shall form the basis for determination of tariff.

#### **Note**

Scrutiny of the project cost estimates by the Commission shall be limited to the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology and such other matters for determination of tariff.

52. **Additional capitalisation:** (1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares in the original scope of works subject to the ceiling norm specified in regulation 51;
- (iv) Liabilities to meet award of arbitration or compliance of the order or decree of a court; and
- (v) On account of change in law.

Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff.

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 transmission system.

(2) Subject to the provisions of clause (3) of this regulation, the capital expenditure of the following nature actually incurred after the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities relating to works/services within the original scope of work;
- (ii) Liabilities to meet award of arbitration or compliance of the order or decree of a court;
- (iii) On account of change in law; and
- (iv) Any additional works/services which have become necessary for efficient and successful operation of the project, but not included in the original project cost.

(3) Any expenditure on minor items/assets brought after the cut off date like tools and tackles, personal computers, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, T.V., washing machine, heat-convectors, mattresses, carpets, etc shall not be considered for additional capitalisation for determination of tariff with effect from notified date of the tariff regulations by the Commission as per regulation 1(2).

**Note**

The list of items is illustrative and not exhaustive.

(4) Impact of additional capitalisation in tariff revision may be considered by the Commission twice in a tariff period, including revision of tariff after the cut off date.

**Note 1**

Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 53.

**Note 2**

Any expenditure on replacement of old assets shall be considered after writing off the entire value of the original assets from the original capital cost.

**Note 3**

Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced in the normative debt-equity ratio specified in regulation 53.

#### **Note 4**

Any expenditure admitted by the Commission for determination of tariff on renovation and modernization and life extension shall be serviced on normative debt-equity ratio specified in regulation 53 after writing off the original amount of the replaced assets from the original capital cost.

53. **Debt-Equity Ratio:** (1) In case of all projects, debt–equity ratio as on the date of commercial operation shall be 70:30 for determination of tariff. Provided that the Commission may in appropriate case consider equity higher than 30% for the purpose of determination of tariff, where the transmission licensee is able to establish to the satisfaction of the Commission that deployment of equity more than 30% was in the interest of general public;

Provided that in case of the projects where actual equity employed is less than 30%, the actual debt and equity shall be considered for determination of tariff.

Provided that in case of existing projects, the actual debt: equity shall be used for tariff determination. However, any expansion shall be governed as per regulation 53.

(2) The debt and equity amounts arrived at in accordance with clause (i) shall be used in all calculations for calculating interest on loan, return on equity, Advance Against Depreciation and Foreign Exchange Rate Variation.

54. **Transmission Charges** : The tariff for transmission of electricity on inter-state transmission system shall comprise of the recovery of annual transmission charges consisting of the following, namely:

- (a) Interest on loan capital;
- (b) Depreciation, including Advance Against Depreciation;
- (c) Return on equity;
- (d) Operation and maintenance expenses; and
- (e) Interest on working capital.

55. **Computation of Transmission Charges:** The annual transmission charges shall be computed on the following basis, namely:

- (i) **Interest on loan Capital**

(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in regulation 53.

(b) Provided that in case of existing projects, the actual debt: equity shall be used for tariff determination. However, any expansion shall be governed as per regulation 53.

(c) The transmission licensee shall make every effort to swap the loan as long as it results in net benefit to the long-term transmission customers. The costs associated with such swapping shall be borne by the long-term transmission customers.

(d) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefits passed on to the beneficiaries.

(e) In case of any dispute, any of the parties may approach the Commission with proper application. However, the long-term transmission customers shall not withhold any payment as ordered by the Commission to the transmission licensee during pendency of any dispute relating to swapping of loan.

(f) In case any moratorium period is availed of by the transmission 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.

(g) The transmission licensee shall not make any profit on account of swapping of loan and interest on loan.

(ii) **Depreciation, including Advance Against Depreciation**

(a) **Depreciation**

For the purpose of tariff, depreciation shall be computed in the following manner, namely:

(i) The value base for the purpose of depreciation shall be the historical cost of the asset.

(ii) Depreciation shall be calculated annually based on straight-line method over the useful life of the asset and at the rates prescribed by the Central Commission.

The residual life of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing

90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government/Commission.

(iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

(iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on *pro rata* basis.

(b) **Advance Against Depreciation**

In addition to allowable depreciation, the transmission licensee shall be entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 55 (i) subject to a ceiling of  $1/10^{\text{th}}$  of loan amount as per regulation 53 minus depreciation as per schedule

Provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year;

Provided further that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.

All efforts should be made for aligning the tenure of long term debt with permissible rate of depreciation to reduce front loading of tariff through various mechanisms including resort to take out finance to elongate debt repayment period. Accordingly, there will be no need for any advance against depreciation.

(iii) **Return on Equity:**

Return on equity shall be computed on the equity base determined in accordance with regulation 53 and shall be @ 14% per annum.

Provided that equity invested in foreign currency shall be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

**Explanation**

The premium raised by the transmission licensee while issuing share capital and investment of internal resources created out of free reserve of the existing transmission licensee, if any, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing return on equity, provided that such premium amount and internal resources are actually utilised for meeting the capital expenditure of the project and forms part of the approved financial package. The definition of equity thus would involve all net worth deployed in the capital of the unit. This would not include any revaluation reserves & subsidies.

(iv) **Operation and Maintenance expenses**

(a) Norms for operation and maintenance expenses per ckt-km and per bay shall be as under, namely:

**Norms for O&M expenses per ckt-km and per bay**

	Year				
	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses (Rs. in lakh per ckt-km)	0.227	0.236	0.246	0.255	0.266
O&M expenses (Rs. in lakh per bay)	28.12	29.25	30.42	31.63	32.90

(b) The total allowable O&M expenses for a transmission licensee shall be calculated by multiplying the number of bays and ckt-km of line length with the applicable norms for the O&M expenses per bay and per ckt-Km respectively.

(v) **Interest on Working Capital**

(1) Working capital shall cover:

- (a) Operation and maintenance expenses for one month;
- (b) Maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation; and
- (c) Receivables equivalent to two months of transmission charges calculated on target availability level.

(2) Rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2004 or on 1<sup>st</sup> April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The interest on working capital shall be payable on normative basis notwithstanding that the transmission licensee may not have taken working capital loan from any outside agency, or taken at different rates and amounts.

56. **Payment of Transmission Charges** : Full annual transmission charges shall be recoverable at the target availability stipulated in regulation 50. Payment of transmission charges below the target availability shall be on *pro rata* basis. The transmission charges shall be calculated on monthly basis.

57. **Sharing of charges for intra-state assets**: In case of more than one long-term transmission customer of the state transmission system, the monthly transmission charges leviable on each long-term transmission customer shall be computed as per the following formula:

Transmission Charges for intra-regional system payable for a month by a long-term transmission customer of that transmission system

$$= \left( \sum_{i=1}^n \left( \frac{TC_i}{12} \right) - TRSC \right) \times \frac{CL}{SCL}$$

Where  $TC_i$  = Annual Transmission Charges for the  $i^{th}$  project in the state computed in accordance with regulation 56

$n$  = Number of projects in the region

TRSC = Total recovery of transmission charges for the month from Short-term transmission customers for the regional transmission system in accordance with the Gujarat Electricity Regulatory Commission (Open Access in Intra-State Transmission Regulations, 2004).

CL = Allotted Transmission Capacity to the long-term transmission customer

SCL = Sum of the Allotted Transmission Capacities to all the long-term transmission customers of the state transmission system.

58. **Incentive** : (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 51, in accordance with the following formula:

Incentive = Equity x [Annual availability achieved – Target availability] / 100

(2) Incentive shall be shared by the long-term customers in the ratio of their average allotted transmission capacity for the year.”

59. **Rebate** : For payment of bills of transmission charges through letter of credit on presentation, a rebate of 2% 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% shall be allowed.

60. **Late Payment Surcharge**: In case the payment of bills of capacity charges and energy charges by the beneficiary or beneficiaries is delayed beyond a period of 60 days from the date of billing, late payment surcharge at the rate of 1.25% per month shall be levied by the company”



## CHAPTER 5

### Distribution

#### 61. Definitions.

**"Area of Supply"** means the area within which a distribution licensee is authorised by his licence to supply electricity;

**"Board"** means a Gujarat Electricity Board, constituted under sub section 1 of Section 5 of the Electricity (Supply) Act, 1948

**"Consumer"** means any person who is supplied with electricity for his own use by a licensee or the Government or by any other person engaged in the business of supplying electricity to the public under the Act or any other law for the time being in force and includes any person whose premises are for the time being connected for the purpose of receiving electricity with the works of a licensee, the Government or such other person, as the case may be;

**"Distribution Licensee"** means a licensee authorised to operate and maintain a distribution system for supplying electricity to the consumers in his area of supply;

**"Open access customer"** means a consumer permitted by the State Commission to receive supply of electricity from a person other than distribution licensee of his area of supply, and the expression includes a generating company and a licensee, who has availed of or intends to avail of open access

Words and expression used and not defined in any of the Regulations shall have the meanings as defined in the Act.

#### 62. Procedure for calculating expected revenue.

All the licensees including licensee having generating companies shall provide to the Commission the details of calculation with other information and particulars in terms of the Gujarat Electricity Regulatory Commission (Conduct of Business) Regulations, 2004 (CBR) in the manner prescribed therein along with the specified fees etc..

The Commission may suo moto ask the licensees including licensee having generating companies to file such application for variation in tariff and other charges and the same shall be filed as per the CBR in the manner and time as directed.

The Commission shall determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State of Gujarat. In addition the Commission may also determine charges on account of services rendered by the utility to the consumers e.g. Grid Support Charges.

Notwithstanding anything contained in Part X of the Act, the tariff for any inter-State supply, transmission or wheeling of electricity, as the case may be, involving the territories of two States may, be also determined by the Commission in respect of the licensees who intend to distribute electricity and make payment therefore in the State of Gujarat in accordance of the provisions contained in Section 64(5) of the Act.

Provided further that where open access has been permitted to a category of consumers under Section 42, the Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers.

Provided further that if the open access has been allowed to certain consumers by the Commission under Section 42, such consumers, 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 notwithstanding the provisions contained in Clause (d) of Sub-section 1 of Section 62.

Provided further that notwithstanding anything contained in these Regulations, the Commission shall adopt the tariff if such tariff has been determined through transparent process of bidding in accordance with the Guidelines issued by the Central Government.

### **63 Terms and conditions for determination of tariff.**

Without prejudice to the generality of the powers of the Commission, but subject to the provisions of the Act, the Commission shall be guided by the section 61 of the Act while determining the tariff

Provided that the Commission may also keep in view and be guided by the requirements relating to the -

compliance of environmental standards;

compliance of safety standards;

compliance of different statutory requirements;

compliance of requirement of energy conservation through tariff mechanism to encourage optimum and economic utilization of available electricity and to discourage unnecessary and wasteful use of electricity;

the need for reserve capacities to improve system reliability;

performance standards and other norms as may be specified or directed by the Commission including incentives and penalty relating to such standards;

development of market relating to electricity;

affordability of power and need of power to different sections of society in the interest of the consumer as well as the requirement of the utility;

requirement and need to encourage non-conventional source of energy.

requirement and need to insulate the consumers for sudden tariff shocks in a particular year or some of years to protect both the utility and the consumers.

Provided further that while determining the tariff, the Commission may keep in view the existing and future balances available under Consumer Account, Tariff & Dividend Control Account, Undistributed Rebates, Development Reserve, Contingency Reserve, Deferred Taxation Reserve along with its investment and income for the existing licensees.

Provided further that the Commission may differentiate tariff on the basis of any of the following factors or on the basis of any combination of some factors namely consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which supply is required or the geographical position of the area, the nature of the supply and the purpose for which the supply is required. The Commission depending upon the available factors / data / information, or any other material which it may consider appropriate in each case, may, either fix separate rates or by any other method impose extra charges, incentives, penalty etc. on the basic tariff to achieve the purpose for any one or more factors mentioned above to the extent feasible and keeping in view the overall interest of the Consumers, Licensees / Generating Company and / or the Electrical System as a whole.

- 64** The Commission at its sole discretion will follow the above principles, which have been incorporated in Regulation 63 and suitably apply the same to the extent required in each case. The Commission shall, at its sole discretion, determine the extent to which reliance may be had on any one principle, or more than one principle in any combination in each case having regard to the facts revealed in each such case.

Subject to Regulation 63, the financial terms and conditions for determination of tariff for the distribution licensees. Such modifications which the Commission may consider appropriate may be made from time to time.

Provided that, if there is difference between such financial terms and conditions and National Electricity Policy and Tariff Policy or principles and methodologies specified by the Central Commission , the Commission shall be guided by the same, though subject to other provisions of Regulation 63 which shall also be appropriately taken into account.

**65**

- a. The tariff shall be revised ordinarily only once in a year except for adjustment on account of Fuel and Power Purchase. However, no reimbursement of fuel and power cost shall be allowed on any excess beyond permissible (a) technical and commercial loss and (b) self-consumption of electricity under the formula.

- b. The tariff shall normally be revised from the prospective date with due notice except for adjustment of FPPPA unless there is a compelling reason to revise the same from the retrospective date in which case detailed justification will be given in writing by the Commission.
- c. The licensee or the Generating Company shall, before incurring any capital expenditure which does not fall within the capital expenditure programme as approved by the Commission and which exceeds, in any one financial year or in more than one financial year, a sum of Rs. 2 crores or 1% of the gross Fixed Assets whichever is less for one individual / head of item, take the approval of the Commission before incurring the same for the purpose of tariff. The overall annual limit for incurring capital expenditure on all such unapproved capital items shall not exceed Rs. 15 crores or 2% of the opening balance of gross fixed assets whichever is lower.
- d. Provided that in case of emergency or emergent circumstances due to its impact on the safety of the assets, life, system or smooth supply or such similar reasons, the licensee or the generating company may incur the necessary expenditure without taking the prior approval of the Commission, but shall intimate the same to the Commission along with the circumstances due to which it was not possible to take prior approval.
- e. Provided further that in case the Commission neither refuses nor gives its consent for incurring of such expenditure within 15 working days from its filing with all the relevant documents, the licensee / generating company may presume that the Commission has no objection for the inclusion of same for fixing the tariff.
- f. Provided further that notwithstanding anything contained above, the above procedure shall not be applicable to the extent the capital expenditure programme, as included in the tariff petition, has been approved by the Commission.
- g. The Commission may, at any time at its sole discretion vary, alter, modify, add or amend any provision of this Regulation.
- h. If any difficulty arises in giving effect to any of the provisions of this Regulation, the Commission may for reasons to be recorded in writing direct the licensee or consumer by general or special order, for taking suitable action not inconsistent with the provisions of the Act, as may appear to be necessary for removing the difficulty.

Nothing in these Regulations shall be deemed to limit or otherwise affect the inherent power of the Commission to make such orders as may be necessary for meeting the ends of justice or to prevent the abuse of the process of the Commission.

## **66. Principles, terms and conditions for determination of tariff along with their application for Distribution Licensee**

The tariff shall be fixed in such a manner that a licensee ordinarily in any financial year will earn a permissible return which shall comprise of 14% on equity invested into capital expenditure (apportioned to the quantum for the purpose of performing the business electricity in the present debt equity structure) plus permitted incentives minus penalties leviable under the Act / Regulations for that year. The incentives would result from normative targets on Aggregate Technical and commercial losses (AT&C) for the licensee. The Commission would define the AT&C targets in line with the regulation on Multi Year Tariff principles.

The definition of equity thus would involve all net worth deployed in the capital of the unit. This would not include any revaluation reserves & subsidies. The paid up equity capital for this purpose shall be the average of the opening and closing balance of the paid up equity capital for that year.

The profit for this purpose means the difference between the total amount of income from the business of electricity including income forgone or not realized due to reasons within control of licensee and the relevant portion of the income from other business including use of its assets and resources pertaining to electricity business for other than electricity business minus reasonable actual entitled expenditure properly incurred on the business relating to electricity or for other business for which income is being calculated subject to the extent of such income.

The difference between the profit and the permissible return will be dealt as under 50% shall be retained by the licensee and the balance 50% will go to the consumer account and will be taken into consideration while fixing FPPPA for the relevant or subsequent years or tariff for the subsequent years.

### **The income shall include all income from any source, but not limited to**

- 1) sale of energy -gross receipts from actual sale of energy less discounts / rebates given based on the order of the Commission ;
- 2) rental of meters, plant, equipment and other apparatus hired to consumers;
- 3) services to consumer by way of repair or any sale or other service other than capital receipts ;
- 4) interest on investments, bank balances including fixed and call deposits and any other interest income ;
- 5) profit on sale of assets ;
- 6) wheeling of energy ;
- 7) transmission of energy ;
- 8) cross subsidy surcharge u/s 42(2) of the Act ;
- 9) Additional surcharge u/s 42(4) ;

- 10) Any receipt or refund from other sources against any expense or likely expense which has been earlier allowed as expense in the tariff.
- 11) all other general receipts arising from and ancillary or incidental to the business of electricity supply ;
- 12) other general receipts in terms of Act / Regulations including use of assets for other business whether actually recovered or not.

**Reasonable and actual entitled expenditure properly to be incurred on -**

- 1) purchase of energy;
- 2) salaries and wages and staff welfare expenses excluding management remuneration covered below;
- 3) Director's remuneration, fees, expenses including facilities;
- 4) salaries and wages of corporate office / registered office;
- 5) financing cost excluding penal interest / charges
- 6) interest charges on loan borrowed for capitalized assets;
- 7) interest on temporary accommodation to the extent of approved unrealized arrears from consumers;
- 8) interest on working capital facilities which would include the following
  - 1) Operation and maintenance expenses for one month;
  - 2) Maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation; and
  - 3) Receivables equivalent to two months of sales
- 9) financing charges applicable on operational account;
- 10) interest on cash security deposits from consumers;
- 11) interest on advance amount against sales from consumers, if any;
- 12) Impact of variation of foreign exchange rate in case of foreign currency loan taken with due approval and is not capitalized.
- 13) Depreciation on the assets capitalized based on the investment programme approved by the Commission and actually in use. Depreciation shall be calculated annually, based on straight line method over the useful life of the asset and at the rates prescribed by the Central Commission;
- 14) rents, rates and taxes, other than all taxes relating to income, profits
- 15) legal charges;
- 16) Auditor's expenses - auditor's fees; auditor's expenses; payment to Auditors in any other capacity or for any work which is necessary to be got done from them and audited.
- 17) consultancy charges for work which cannot be done in-house or is uneconomical in doing in-house or is essential to be done from outside sources except payment to Auditor's;
- 18) bad debts actually written off subject to the Commission's clearance;
- 19) other expenses necessary and arising from and ancillary or incidental to the business of electricity except penalty etc. levied under this Act or any other Act;
- 20) Expenses arising from and ancillary or incidental to other business of licensee for which income have been included, but limited to the amount of income so included.

The expenses related to business other than distribution of electricity would not form part of the tariff calculation. The interest rate used shall be at actuals. However the licensee shall make full efforts to swap the debt to more favourable terms and pass the benefit to the consumers.

The Commission may also allow reasonable expenditure to be incurred actually and properly on the following –

- 1) all taxes on income and profit calculated on permissible return as allowed by the Commission relating to business of electricity and also subject to the condition that the amount of taxes is actually paid as tax after taking into account refunds into consideration ;
- 2) penal interest, additional surcharge and / or non-availment of entitled rebates, if the situation so warrants;
- 3) special allocations to meet and cover the requirement of likely unexpected emergent circumstances which cannot be covered under normal business activities which shall be invested and kept separately including its income as per the directions of the Commission.

**Note :**

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

The existing balances as on notified date of the tariff regulations by the Commission as per regulation 1(2) under Tariff and Dividend Control Reserve, Consumer Account, Contingency Reserve, Undistributed Rebates, Deferred Taxation Reserve, Development Reserve shall be transferred and shown as such under balances on account of consumer and shall be appropriately dealt by the Commission while fixing the tariff and / or to be kept separately to meet the fund required for emergent circumstances or for providing funds / meeting cost of replacement.

In case of abnormal variation in income or expenses or both which is likely to affect tariff substantially, the Commission may provide to include the same including its impact as a Regulatory Asset in the tariff and suitably provide for its recovery of the same through tariff for one or more years or as a surcharge for one or more years as it may deem fit to protect the interests of consumers / utility or both provided in the opinion of the Commission the same cannot be met fully or partially from balance under any other consumer account the amount of which has been already taken from the consumer through tariff.

**P.S.SHAH  
SECRETARY**

AHEMDABAD  
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