# MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

## N O T I F I C A T I O N
**(30.08.2010)**

**No. MSERC/08/2010/1.** The following Draft of the Meghalaya State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2010 which the Commission proposes to make in exercise of the powers conferred by clauses (zc), (zd) and (ze) of subsection (2) of section 181 read with section 61 of the Electricity Act, 2003 and all powers enabling it in that behalf are hereby previously published as required under subsection (3) thereof and notice is hereby given that any person or persons who may be interested may send their objections or comments to the Secretary of the Commission, New Administrative Building, Lower Lachumiere, Shillong within 30 (thirty) days of this Notification in the Gazette of Meghalaya for consideration of the Commission.

Secretary,
Meghalaya State Electricity Regulatory Commission
Shillong.

**THE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION (TERMS AND CONDITIONS FOR DETERMINATION OF TARIFF) REGULATIONS, 2010.**

(____________________________ OF 2010)

## Chapter – 1:

## PRELIMINARY

### 1. Short title and commencement

(1) These regulations may be called the Meghalaya State Electricity Regulatory Commission (Terms and Conditions for determination of Tariff) Regulations, 2010.

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

(3) These regulations shall apply to all generating companies and transmission & distribution licensees in the State of Meghalaya.

### 2. Definitions

In these regulations, unless the context otherwise requires,

(a) **“Act”** shall mean the Electricity Act, 2003 (36 of 2003) as amended from time to time.

(b) **“Conduct of Business Regulations”** means the Meghalaya State Electricity Regulatory Commission (Conduct of Business) Regulations, 2007

(c) **“Commission”** means the Meghalaya State Electricity Regulatory Commission

(d) **“Current Year”** means the year in which the Aggregate Revenue Requirement petition or petition for determination of tariff is to be filed;

(e) **'CERC'** means the Central Electricity Regulatory Commission

(f) **"Ensuing Year"** means the year immediately following the current year.

(g) **"Force Majeure Event"** means event beyond the reasonable control of the generating company or the licensee, including, but not limited to earthquake, cyclone, flood, storm, war, terrorist attack, civil commotion or other similar occurrence that lead to any act that would involve a breach of relevant laws or Regulations;

(h) **"Licensee"** means a person who has been granted a license and shall include a deemed licensee.

(i) **'License'** means a license granted by the Commission under Section 14 of the Act.

(j) **'Licensed Business'** means the function and activities, which the licensee is required to undertake in terms of the License granted by the Commission or as deemed Licensee under the Act.

(k) **'MYT (Multi year Tariff)'** means where tariffs are applicable for a specified control period of three years or more. This would minimize risks for utilities and consumers, promote efficiency and appropriate reduction of system losses and attracts investments and would bring greater predictability to consumer tariffs by restricting tariff adjustments to known indicators on power purchase prices and inflation indices.

(l) **'Norms'** means standards prescribed by the Commission for performance of generating station, transmission system and distribution system.

(m) **"Previous year"** means the year immediately preceding the current year.

(n) **'Regulatory Asset'** means previously incurred losses that are in the nature of deferred expenditure and that can be recovered from consumers in future, provided allowed by regulatory authorities.

(o) **"Tariff"** means the schedule of charges for generation, transmission, and distribution of electricity determined by the Commission from time to time;

(p) **"Year"** means financial year ending on 31$^{st}$ March.

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

# Chapter – 2:

# GENERAL GUIDING PRINCIPLES FOR DETERMINATION OF TARIFF

**3. Tariff determination**

(1) The Commission, while determining the tariff shall be guided by the following principles contained in Section 61 of the Act, namely –

(a) The principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies or transmission licensees;

(b) The generation, transmission, distribution and supply of electricity are conducted on commercial principles;

(c) The factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;

(d) Safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;

(e) The principles rewarding efficiency in performance;

(f) The tariff progressively reflects the cost of supply of electricity and also, reduces cross-subsidies in the manner.

(g) The promotion of co-generation and generation of electricity from renewable sources of energy;

(h) The National Electricity Policy and Tariff policy as laid down by the Government of India.

(2) The Commission shall adopt such tariff as laid down under Section 63 of the Act where such tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government,

(3) The Commission shall subject to the provisions of sub-regulation 3(4), determine the tariff in accordance with the provisions of the Act, and these regulations, for –

(a) Supply of electricity by a generating company to a distribution licensee:

(b) Transmission of electricity;

(c) Wheeling of electricity;

(d) Retail sale of electricity;

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

(4) In case it is not possible or practicable to determine tariff separately for (a) to (d) above, the Commission may fix combined tariff for more than one of these activities as per requirement.

(5) Where the Commission has permitted open access to any category of consumers under sub section (2) of Section 42 of the Act, such consumers, notwithstanding the provisions of clause (d) of sub-section (1) of Section 62 of the Act, may enter into an agreement with any person for supply/ purchase of electricity for this purpose on such terms and conditions (including tariff) as may be agreed upon by them, subject to the payment of various wheeling charges cross subsidy surcharge, additional surcharge and other open access related charges as determined by the Commission.

(6) The Commission while determining the tariff, shall not show undue preference to any consumer of electricity, but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.

(7) If the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the Commission, the State Government shall, notwithstanding any direction which may be given under Section 109 of the Act, pay, in advance to the period to which it is applicable and in such manner as may be specified by the Commission.

Provided that no such direction of the State Government shall be operative if the subsidy payment is not made in accordance with the provisions contained in this regulation and the tariff fixed by the Commission shall be applicable from the date decided as per the tariff order issued by the Commission in this regard.

**4. Charging of permissible Tariff**

(1) Subject to the provisions of sub-regulations 3(3) and 3(4), no generating company or licensee shall, without prior approval of the Commission, charge any tariff;

Provided that the existing tariff being charged by the generating company or the licensee shall continue to be charged even after the date of commencement of these regulations, till such time the tariff is revised by the Commission.

(2) The generating company or the licensee shall not charge a tariff in excess of the tariff determined by the Commission and if any generating company or licensee recovers a price or charge exceeding the tariff determined by the Commission, the excess amount shall be recoverable by the person who has paid such price or charge along with interest equivalent to the bank rate without prejudice to any other liability incurred by the generating company or the licensee.

**5. Cross-Subsidy**

(1) "Cross-subsidy for a consumer category" in the first phase (as defined in sub regulation 5.2 below) means the difference between the average realization per unit from that category and the combined average cost of supply per unit. In the second phase (as defined in sub-regulation 5.2 below) means the difference between the average realization per unit from that category and the combined per unit cost of supply for that category.

(2) The Commission shall determine the tariff to progressively reflect the cost of supply of electricity and also reduce cross subsidies within a reasonable period. To this purpose, in the first phase the Commission shall determine tariff so that it progressively reflects combined average unit cost of supply in accordance with National Tariff Policy. In the second phase, the Commission shall consider moving towards the category-wise unit cost of supply as a basis for determination of tariff.

**6. Power purchase and fuel cost adjustment**

(1) The Commission shall allow the recovery or refund, as the case may be, of additional charge for adjustment to tariff on account of change in fuel related costs of electricity generation and purchase of electricity.

(2) The additional charge for adjustment shall be recovered or refunded, as the case may be, on a quarterly basis; and shall be taken as per actuals of the last three months.

(3) The generating company or licensee shall put forth a formula for such recovery or refund in their tariff petition for approval by the Commission.

(4) After approval of the above proposed formulae with modifications, if any, the generating company or licensee is not required to file separate petition for power purchase and fuel cost adjustment.

The generating company or licensee shall determine such charge, in accordance with the formula under sub-regulation 6.4 above, and recover or refund the same, as the case may be, from their respective beneficiaries / consumers.

(5) The generating company or licensee shall send detail calculation of such charge quarterly to the Commission for scrutiny and approval along with the charge actually recovered / refunded.

(6) The generating company or licensee shall refund or recover, as the case may be, any difference of such charge already recovered by it and now approved by the Commission.

(7) In case of any reduction in power purchase and fuel cost the generating company or licensee shall refund the same by adjustment in the next monthly bill.

(8) In case of any dispute, an appropriate petition in accordance with the Meghalaya State Electricity Regulatory Commission (Conduct of Business) Regulations, 2007 as amended from time to time shall be made before the Commission.

**7. Core Business**

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 a generating company or a licensee.

**8. Income of Other Business**

(1) Other business means any business by the licensee other than the licensed business undertaken for optimum utilization of assets.

(2) In the event a licensee engaged in any other business, he shall give prior intimation in writing to the Commission of such other Business.

(3) Revenue from other business shall be treated as income to the extent authorized by the Commission under Section 41 and 51 of the Act.

**9. Foreign Exchange Rate Variation (FERV)**

Extra rupee liability towards interest payment and loan repayment corresponding to the normative foreign debt or actual foreign debt, whichever is lower, 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 licensee or its suppliers or contractors. Similarly, reduction in Rupee liability shall also the accounted for by the generating company or the licensee. Every generating company or the 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.

**10. Recovery of Income tax and Foreign Exchange Rate Variation:**

Recovery of Income tax and Foreign Exchange Rate Variation shall be done directly by the generating company or the licensee, as the case may be, from the beneficiaries without making any application before the Commission.

Provided that in case of any objections by the beneficiaries to the amounts claimed on account of income tax or Foreign Exchange Rate Variation, the generating company or the licensee, as the case may be, may make an appropriate application before the Commission for its decision.

**11. Norms of Operation**

(1) The norms of operation specified in these regulations shall be the norms to be made applicable and these shall not preclude the generating company or the licensee, as the case may be, and the beneficiaries from agreeing to improved norms of operation and in case the improved norms agreed to, such improved norms shall be applicable for the determination of tariff.

(2) The Commission may decide to defer 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, fuel grades, site specific conditions etc that might have a bearing on the efficiency of the unit. The Commission shall review the past operations in detail while providing any relaxation.

(3) In respect of the generating companies covered under power purchase agreements, the norms in the power purchase agreement will be applicable till the expiry of the contract.

**12. Deviation from norms**

The tariff for sale of electricity by a generating company or licensee may also be fixed in deviation of the norms specified in these regulations subject to the condition that:

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

ii) Any such deviation shall come into effect from the date of approval by the Commission.

**13. Sharing of Profits and Losses**

13. 1 The Commission shall –

(1) cause the generating company or the licensee, as the case may be, to pass on 35 percent of the profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, to Consumers, by adjustment in the next years ARR and consequential distribution tariff rates;

(2) allow the generating company or the licensee to retain 35 percent of the profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, for their organization; and

(3) cause the generating company or licensee as the case may be to deposit the remaining 30 percent of such profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, into a Contingency Reserve Fund which should be operated in a manner specified by the Commission for such purpose. No amount from such contingency reserve fund may be drawn without the prior written approval of the Commission, which may be granted on the arising of such contingency conditions as may be specified by the Commission, through issue of suitable guidelines for such purpose;

13.2 The generating company or the licensee, as the case may be, shall bear the entire loss on account of its failure to achieve the norms laid down by the Commission or targets set by the Commission from time to time, unless it can satisfy the Commission that such losses were incurred after complying with the provisions of these regulations and such Orders as may have been passed by the Commission, for reason which are well beyond normal human control.

**14. Regulatory Asset**

(1) Only in extraordinary circumstances, the Commission may allow creation of Regulatory Asset, in case, the Revenue Gap is very substantial and is on account of one time factors such as natural causes or force majure conditions beyond control of the generating company or the licensee and its full recovery in a single year will result in tariff shock for the consumers:

(2) The Regulatory Asset so created along with carrying cost shall be liquidated in maximum 3 years period immediately following the year in which it is created.

(3) The use of the facility of regulatory asset should not be repetitive.

**15. Review and Truing-Up**

(1) The Commission shall undertake a 'Review' of the expenses and revenues approved by the Commission in the Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates/pre-actuals of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments / changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called 'Review'.

(2) After audited accounts of a year are made available, the Commission shall undertake similar exercise as above with reference to the final actual figures as per the audited accounts. This exercise with reference to audited accounts shall be called 'truing-Up'.

(3) The generating company or the licensee, as the case may be, shall make an application before the Commission, for 'truing up' of ARR of the previous year by 30$^{th}$ September of the following year, on the basis of audited statement of accounts and the Audit Report, thereon. The generating company or the licensee shall get their accounts audited within a specified time frame, either by the Comptroller & Auditor General of India or by a Statutory Auditor drawn from the panel of Statutory Auditors approved by the Comptroller & Auditor General of India, from time to time, to enable them to file the application for 'truing up' within the specified date, that is 30$^{th}$ September of the following year.

(4) In case the generating company or the licensee as the case may be, fails to make an application for truing-up of the ARR of previous year by 30$^{th}$ September of the following year, the Commission may, undertake suo-moto 'truing up' of the ARR of previous year and direct the generating company or the licensee as the case may be to produce such data as it may direct.

(5) The surplus of revenue of any year as a result of review and truing up exercises shall be adjusted in the manner prescribed by these regulations.

(6) While approving such expenses/revenues to be adjusted in the future years as arising out of the review and / or truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues. Carrying costs shall be limited to the interest rate approved for working capital borrowings.

(7) For any revision in approvals, the generating company or the licensee would be required to satisfy the Commission that the revision is necessary due to conditions beyond its control.

**16. Multi - Year Tariff**

(1) The Commission may adopt multi-year tariff principles for matters relating to calculation of revenue requirements and tariff determination of the generating companies and the licensees including the extent of investments, deduction of loss levels, other efficiency gains, revision in charges, changes in tariff structure, and such other matters as the Commission may direct by a general or special order.

(2) The Commission may, as and when it considers appropriate, issue guidelines for filing of Revenue Requirement and Tariff Proposals for a period of more than a single financial year and unless waived by the Commission, the generating company and the licensee shall follow such guidelines issued by the Commission.

# Chapter – 3:
# DETERMINATION OF TARIFF

**17. Filing of Tariff Petition**

(1) Each generating company and the licensee shall file Tariff Petition on or before 30th November each year with the Commission which shall include statements containing calculation of the expected aggregate revenue from charges under it, currently approved tariff and the expected cost of providing services i.e., Aggregate Revenue Requirement (ARR) during the previous year, current year and ensuring year. The information for the previous year should be based on audited accounts and incase audited accounts are not available, audited accounts for the year immediately preceding the previous year should be filed along with un-audited accounts for the previous year.

The tariff application shall also contain tariff proposals so as to fully cover the gap if any, between the expected aggregate revenue at the prevalent tariff and the expected cost of services including schemes for reduction loss levels and other efficiency gains to be achieved.

(2) The generating company and licensee shall file information in the following formats for the previous year, current year and ensuring year along with their petition.

a) Formats for Generating Company as provided in Appendix A-(A) & Appendix D.
b) Formats for Hydro Generating Company as provided in Appendix A-(B) & Appendix D.
c) Formats for Transmission licensee as provided in Appendix B & Appendix D.
d) Formats for Distribution licensee as provided in Appendix C & Appendix D.

(3) The Generating Company and Licensee shall submit a statement on compliance of the directives issued by the Commission in its last tariff order.

(4) Each petition shall be accompanied by such fee as may be prescribed by the Commission.

(5) The petition shall be supported with an affidavit by an authorized person or a person who is acquainted with all facts, stated in the application.

(6) The petition shall be sent by registered post acknowledgement due or by hand delivery. In addition to the hard copies, the information shall necessarily be submitted in such electronic form, as the Commission may require.

(7) Every new licensee shall file with the Commission, within one month of grant of license, a tariff petition along with details as stated in sub-regulation 17.2. Every new generating company shall file a petition with the Commission, at least three months ahead of commencement of commercial operations.

(8) In case a generating company or the licensee carries on any business other than the licensed business, the licensee shall give separate revenue statements, balance sheet and cash-flow statement together with such details as the Commission may require in respect of such businesses.

(9) The Commission shall scrutinize the annual accounts, norms achieved and the information submitted under Annual Revenue Requirement. The Commission may seek any further information, particulars and documents to enable to assess the petitioner's calculations.

(10) On receipt of further required data / information considered necessary, the Commission may take the petition on record for further processing.

(11) The Commission may reject the petition for reasons to be recorded in writing, if such petition is not in accordance with the provisions of the Act and the rules and regulations made there under or the provisions or any other law for the time being in force provided that the petitioner shall be given a reasonable opportunity of being heard before rejecting his application.

(12) In case the generating company or the licensee does not submit the Tariff application within the time allowed by the Commission, the Commission may consider taking up the matter suo-moto.

**18. Publication of Tariff application**

(1) The applicant shall publish the tariff petition in such abridged form and manner as may be specified by the Commission, in atleast two daily newspapers, one in English and the other in local language having wide circulation in the area of supply inviting objections / suggestions within the specified date from general public and stake holders.

(2) The applicant shall submit within 7 days of publication of the notice an affidavit to the Commission with details of the notice and also file copies of the newspapers where in notice has been published.

(3) The copies of the application with all enclosures shall be available for sale at a reasonable cost at such offices of the applicant as may be directed by the Commission. Facility, for procuring the copy of the petition by post shall also be provided. The petition with all enclosure in full shape shall be posted at the applicants website in downloadable format.

(4) All suggestions / objections in response to the public notice shall be sent to the Secretary of the Commission at its head quarters office with a copy to the applicant.

(5) The applicant shall file his response / comments / remarks on the suggestions / objections received within 15 days from the last date of receipt of such suggestion / objections with the Commission along with a copy to the objector.

(6) Incase the applicant is unable to respond to any objection, justifiable reasons for not responding shall be furnished. Replies such as ‘no comments’ etc to any objection(s) shall not be entertained.

(7) If the applicant fails to respond to any suggestion / objection within the given time it will be constructed that the applicant has no response / comments to offer and the Commission shall proceed to decide the matter in a manner as it deems fit and fair.

(8) The Commission may consider granting extra time to the applicant to file their response / comments, provided the reasons for such extension of time are found reasonable.

**19. Hearing on the application**

(1) The Commission shall initiate a proceeding on the revenue calculations and tariff proposals given by the applicant and may hold public hearing(s) to decide on such revenue calculations and tariff proposals.

(2) The procedure for public hearing of the tariff application shall be in the manner as specified by the Commission.

**20. Order of the Commission**

(1) Within a period of 120 days from the date of acceptance of the tariff application and after considering the proceedings of the hearing(s) as well as suggestions / objections received in response to the public notice, the Commission shall issue the tariff order, communicating its decisions on the aggregate revenue requirement, revenue calculations and Tariff proposals to the generating company or the licensee as the case may be.

(2) Tariff will come into force with effect from the date as specified in the Tariff order.

(3) The Commission shall forward within 7 days of passing the order, a copy of the order to the State Government, the Central Electricity Authority, the concerned generating company or licensee and other authorities, as may be necessary.

(4) The Commission shall post the tariff order in its website.

(5) The tariff order shall, unless amended or revised, continue to be in force for such period as may be specified in the Tariff order.

**21. Publication of Tariff Order**

(1) The generating company or the licensee shall publish the tariff or tariff approved by the Commission in two newspapers having wide circulation in the area of supply as the Commission may direct.

(2) Copies of the tariff order shall be made available by generating company or licensee to any person on payment of an amount fixed by the Commission.

**22. Review of Tariff Order**

(1) All applications for the review of tariff shall be in the form of petition accompanied by the prescribed fee. A petition for review of tariff can be admitted by the Commission under the following conditions:

a) the review petition is filed within sixty days for the date of the tariff order, and / or

b) there is an error apparent on the face of the record.

(2) On being satisfied that there is a need to review the tariff of any generating company or the licensee, the Commission may on its own initiate process of review of the tariff of any generating company or the licensee. The Commission may also, in its own motion review any tariff order to correct any clerical error or any error apparent of the face of the record.

**23. Amendment to Tariff**

The tariff determined and notified as above may not be amended more frequently than once in any financial year, except that tariff rates shall be adjusted in accordance with any adjustment formulae, including variable cost adjustment formula, incorporated in the tariff order or in any order of the Commission.

Provided that the consequential orders, which the Commission may issue to give effect to the subsidy by the State Government shall not be constructed as amendment of the tariff notified.

# Chapter – 4:

# GENERATION

## A: THERMAL POWER GENERATING STATION

**24. Definitions**

Unless the context otherwise requires, for the purpose of this part:

(a) **“Auxiliary Energy Consumption”** (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;

(b) **“Plant Availability Factor”** in relation to a 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 in MW of reduced by the normative auxiliary energy consumption in MW, and shall be computed in accordance with the following formula:

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

where,

(i) IC = Installed Capacity of the generating station in MW,

(ii) $DC_i$ = Average declared capacity for the $i^{th}$ day of the period in MW,

(iii) N = Number of days during the period, and

(iv) $AUX_n$ = Normative Auxiliary Energy Consumption as a percentage of gross generation;

(c) **“Beneficiary”** in relation to a generating station means the person buying power generated at such a generating station on payment of Annual Fixed Charges;

(d) **‘Date of Commercial operation’ or COD** means

In relation to a unit or block of the thermal generating station, the date declared by the generating company after demonstrating the maximum continuous rating (MCR) or the installed capacity (IC) through a successful trail run after notice to the beneficiaries, from 0000 hour of which scheduling process as per the Indian Electricity Grid Code (IEGC) is fully implemented, and in relation to the generating station as a whole, the date of commercial operation of the last unit or block of the generating station.

(e) **“Declared Capacity”** (DC) shall mean the capability of the generating station to deliver ex-bus electricity in MW declared by such generating station in relation to any time block of the day or whole of the day, duly taking into account the availability of fuel or water and subject to further qualification in the relevant regulations.

(f) **“Gross Calorific Value”** (GCV) in relation to a thermal generating station means the heat produced in kCal by complete combustion of one kilogram of solid fuel or one litre of liquid fuel or one standard cubic meter of gaseous fuel, as the case may be;

(g) **“Gross Station Heat Rate”** (SHR) means the heat energy input in kCal required to generate one kWh of electrical energy at generator terminals;

(h) **“Infirm Power”** means electricity injected into the grid prior to the commercial operation of a unit or a block of the generating station;

(i) **“Installed Capacity”** (IC) means the summation of the nameplate capacities of all the units of the generating station or the capacity of the generating station (reckoned at the generator terminals) approved by the Commission from time to time.

(j) **“Maximum Continuous Rating”** (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;

(k) **“Plant Load Factor”** (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:

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

where,

(i) IC = Installed Capacity of the generating station in MW,

(ii) SGi = Scheduled Generation in MW for the ith time block of the period,

(iii) N = Number of time blocks during the period, and

(ii) AUXn = Normative Auxiliary Energy Consumption as a percentage of gross generation;

(l) **“Scheduled Generation”** (SG) at any time or for any period or time block means schedule of generation in MW ex-bus given by the State Load Despatch Centre.

***Note:***

(i) For a 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.

(m) **‘State Load Despatch Centre’** (SLDC) means the centre established by the State Government for purpose of exercising the powers and discharging functions under Section 31 of the Act.

(n) **“Unit”** in relation to a thermal generating station other than the combined cycle thermal generating station means steam generator, turbine-generator and auxiliaries, or in relation to a combined cycle thermal generating station, means turbine generator and auxiliaries.

(o) **‘Useful life’** in relation to a unit of generating station from the date of commercial operation shall mean the following;

| | |
|---|---|
| (a) Coal / Lignite based thermal generating station | 25 Years |
| (b) Gas / Liquid fuel based thermal generating station | 25 Years |
| (c) Hydro generating station | 35 Years |

**25. Tariff Filing**

(1) The generating company shall file the petition for Annual Revenue Requirement (ARR) and determination of tariff for supply of electricity to distribution licensees in the manner specified in Chapter-2 of these regulations.

(2) In case of a new generating station, a generating company shall file petition for determination of provisional tariff in advance of the anticipated date of commissioning of a generating station based on the capital expenditure actually incurred up to the date of making the petition or a date prior to making of the petition, duly audited and certified by the statutory auditors and the provisional tariff shall be charged from the date of commercial operation of the generating station.

(3) A generating company shall file a fresh petition as per these regulations, for determination of final tariff of a generating station mentioned in clause (2) above based on actual capital expenditure incurred up to the date of commercial operation of the generating station duly certified by the statutory auditors based on annual audited accounts.

(4) Any difference between the provisional tariff and the final tariff determined by the Commission and not attributable to the generating company may be adjusted in the tariff for the following year as directed by the Commission.

**26. Tariff Determination**

(1) Existing Generating Station

Where the Commission has, at any time prior to the notification of these regulations, approved a Power Purchase Agreement (PPA) or arrangement between a generating company and a beneficiary, or has adopted the tariff contained therein for supply of electricity from an existing generating station then the tariff for supply of electricity by the generating company to the distribution licensee shall be in accordance with such PPA or arrangement for such period as may be so approved or adopted by the Commission, to the extent of existing installed capacity as contained in the PPA.

(2) New Generating Station

Where the generating station has been declared under commercial operation from a date after the issue of these regulations the tariff for supply of electricity by the generating company shall be decided in accordance with these regulations.

**27. Capital Cost**

(1) The actual capital expenditure as on the date of commercial operation in the case of new investment shall be subject to prudence check by the Commission.

(2) The capital cost may include capitalized initial spares as follows:-

a) Up to 2.5% of original approved cost in case of coal based generating stations;

b) Up to 4% of original approved cost in the case of gas turbine / combined cycle generating stations.

(3) Where PPA entered into between generating company and the beneficiary provides for a ceiling of actual expenditure, the capital expenditure to be considered shall not exceed the ceiling for determination of tariff.

(4) Scrutiny of the 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.

(5) In case of any abnormal delay in execution of the project causing cost and time overruns, attributable to the failure of the generator in executing the project the Commission may not approve the capitalization of interest and overhead expenses in full but limit it to a reasonable amount only.

(6) The project cost already admitted by the Commission for purpose of tariff fixation shall be considered as the original project cost.

**28. Additional Capitalization**

(1) The following capital expenditure, actually incurred after the date of commercial operation and upto the cut off date may be admitted by the Commission subject to prudence check provided the same was part of the original scope of work of the project.

a) Undischarged liabilities,

b) Works deferred for execution,

c) Procurement of initial capital spares in the original scope of works subject to the ceiling specified above.

d) Liabilities to meet award of arbitration or compliance of the order or decree of a court, and

e) On account of change in law.

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

(2) The capital expenditure of the following nature actually incurred after the cut-off date may be admitted by the Commission, subject to prudence check:

(a) Deferred works relating to ash pond or ash handling system in the original scope of work,

(b) Liabilities to meet award of arbitration or compliance of the order or decree of court,

(c) On account of change in law, and

(d) Any additional works/service which have become necessary for efficient and successful operation of the project but not included in the original project cost.

(3) Any expenditure on acquiring minor items / assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, 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 1- 4 - 2010.

***Note***

*The list of items is illustrative and not exhaustive.*

**28(a) Renovation and Modernisation**

1) The generating company for meeting the expenditure on renovation and modernization (R&M) for the purpose of extension of life beyond the useful life of the generating station or a unit thereof, shall make an application before the Commission for approval of the proposal with a detailed project report giving complete scope, justification, cost-benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost (including foreign exchange component, if any) record of consultation with beneficiaries and any other information considered to be relevant by the generating company.

2) Incase of a coal based / lignite based fired thermal generating station, the generating company may, at its discretion, avail of a ‘special allowance’ in accordance with norms specified in clause(5), as a compensation for meeting the requirement of expenses including renovation and modernization beyond the useful life of the generation station or a unit thereof. In such an event, revision of capital cost shall not

be considered and the applicable operational norms shall not be relaxed but the special allowance shall be included in the annual fixed cost.

*Note:*

*The above option shall not be available for a generating station or a unit for which renovation and modernization has been undertaken and the expenditure has been admitted by the Commission before commencement of these regulations or for a generating station or unit which is in a depleted condition or operating under relaxed operational and performance norms.*

3) Where generating company makes an application for approval of its proposal for renovation and modernization the Commission shall give its approval after due consideration of reasonableness of cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis and such other factors which the Commission may consider relevant.
4) Any expenditure incurred or projected to be incurred and admitted by the Commission after prudent check, based on estimates for renovation and modernization already recovered from original project cost, shall form the basis for determination of tariff.
5) A generating company, opting for sub-regulation (2) above, for a coal based / lignite fired thermal station shall be allowed special allowance @ Rs. 5 lakhs / MW / year in 2009-10 and thereafter escalated @ 5.72% every year during the tariff period 2009-2014, unit wise from the next financial year from the respective date of completion of useful life with reference to the date of commercial operation of the respective unit of generating station:

**29. Debt equity ratio**

(1) For the purpose of determination of tariff, debt-equity ratio in the case of a new generating station commencing commercial operations after the notification of these regulations shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance shall be treated as normative loan. Where actual equity employed is less than 30%, the actual equity employed shall be considered.

(2) In the case of existing generating stations the debt equity ratio as per the Balance Sheet on the date of the Transfer notification will be the debt equity ratio for the first year of operation, subject to such modification as may be found necessary upon audit of the accounts if such Balance Sheet is not audited.

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

(4) Any expenditure incurred or projected to be incurred after notification of these Regulations as may be admitted by the Commission as additional capital expenditure for determination of tariff and renovation and modernization expenditure for life extension shall be served on the manner indicated in sub-regulation (1) above.

**30. 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 to be worked out in the manner provided hereinafter.
2) The fixed cost of a generating station eligible for recovery through annual capacity charges shall consist of:
   a) Return on equity as may be allowed
   b) Interest on Loan Capital;
   c) Operation and maintenance expenses;
   d) Interest on Working Capital;
   e) Depreciation, including Advance Against Depreciation as may be allowed.
   f) Taxes on Income
   g) Cost of secondary fuel oil (for coal based and lignite fired generating stations only)
3) The energy charges shall cover primary fuel charges
4) The annual capacity charges recoverable shall be worked out by deducting other income from the total annual expenses.

**31. Return on Equity**

(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 29 and shall not exceed 14 %.

Provided that in case of projects commissioned after notification of these regulations, an additional return of 0.5 % shall be allowed if such projects are completed within the time line as specified in CERC Tariff Regulations 2009 (Refer Annexure-I).

Provided that in case of projects commissioned after the notification of these regulations an additional return of 1.5 % shall be allowed if such projects are completed within the original sanctioned project cost without cost over run.

Provided that equity invested in a foreign currency may 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.

(2) The premium received while issuing share capital shall be treated as a part of equity provided the same is utilized for meeting capital expenditure.

(3) Internal resources created out of free reserves and utilized for meeting capital expenditure shall also be treated as a part of equity.

(4) Foreign equity will also attract the same rate of return.

**32. Interest and finance charges on loan capital**

(1) Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreements, bond or debenture and the lending rate specified therein.

Provided that the outstanding loan capital shall be adjusted to make it consistent with the loan amount determined in accordance with regulation 29.

Provided the interest and finance charges attributable to capital work in progress shall be excluded and shall be considered as part of the capital cost.

Provided that neither penal interest nor over due interest shall be allowed for computation of tariff.

(2) The generating company shall make every effort to swap loans as long as it results in net benefit to the beneficiaries. The costs associated with such swapping shall be borne by the beneficiaries and any benefit on account of swapping of loan and interest on loan shall be passed on to the beneficiaries.

(3) In case any moratorium period is availed of in any loan 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.

**33. Operation & Maintenance Expenses**

(1) Operation and Maintenance Expenses (O&M Expenses) shall mean the total of all expenditure under the following heads:-

(a) Employee Cost;

(b) Repairs and Maintenance; and

(c) Administration and General Expenses.

(2) The generating company shall prepare a budget for Operation and Maintenance Expenses indicating for each head of account actual expenditure of the last year, estimate for the current year and projection for the next year and submit it to the Commission along with the tariff petition.

(3) The generating company shall provide adequate explanations for the basis of allocation of Operation and Maintenance expenditure among the generating stations.

(4) The Commission shall verify the budget estimates and projections and allow the amount depending on its views about the reasonableness of the projections.

(5) In verifying the budget for operation and maintenance the generating company may be guided by the following norms laid down in CERC Tariff Regulations, 2009.

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

(a) Coal based and lignite fired generating stations

(Rs. lakh / MW)

| Year | 200/210/250 MW sets upto 4 Units | 300/330/350 MW sets upto 3 Units | 500 MW sets upto 2 units | 600 MW and above sets upto 2 units |
|---|---|---|---|---|
| 2009-10 | 18.20 | 16.00 | 13.00 | 11.70 |
| 2010-11 | 19.24 | 16.92 | 13.74 | 12.37 |
| 2011-12 | 20.34 | 17.88 | 14.53 | 13.08 |
| 2012-13 | 21.51 | 18.91 | 15.36 | 13.82 |
| 2013-14 | 22.74 | 19.99 | 16.24 | 14.62 |

Provided that the above norms shall be multiplied by the following factors for additional units in respective unit sizes for the units whose COD occurs on or after 1-4-2009 in the same station

| | | |
|---|---|---|
| 200/210/250 MW | Additional 5$^{th}$ & 6$^{th}$ Units | 0.9 |
| | Additional 7$^{th}$ & more Units | 0.85 |
| 300/330/350 MW | Additional 4$^{th}$ & 5$^{th}$ Units | 0.9 |
| | Additional 6$^{th}$ & more Units | 0.85 |
| 500 MW and above | Additional 3$^{rd}$ & 4$^{th}$ Units | 0.9 |
| | Additional 5$^{th}$ Units | 0.85 |

(b) Open Cycle Gas Turbine / Combined cycle generating station

(Rs. lakh / MW)

| Year | Gas Turbine / Combined Cycle generating stations other than small gas turbine power generating stations | Small gas turbine power generating station |
|---|---|---|
| 2009-10 | 14.80 | 22.90 |
| 2010-11 | 15.65 | 24.21 |
| 2011-12 | 16.54 | 25.59 |
| 2012-13 | 17.49 | 27.06 |
| 2013-14 | 18.49 | 28.61 |

(c) Lignite Fired generating stations

(Rs. lakh / MW)

| Year | 125 MW sets |
|---|---|
| 2009-10 | 24.00 |
| 2010-11 | 25.37 |
| 2011-12 | 26.82 |
| 2012-13 | 28.36 |
| 2013-14 | 29.98 |

Incase of coal – based or lignite fired thermal generating station, a separate compensation allowance unit wise shall be admissible to meet expenses on new assets of capital nature including the nature of minor assets, in the following manner, from the year following the year of completion of 10,15 or 20 years of useful life:

| **Year of operation** | **Compensation Allowance (Rs. lakh / MW / year)** |
|---|---|
| 0-10 | Nil |
| 11-15 | 0.15 |
| 16-20 | 0.35 |
| 21-25 | 0.65 |

**34. Interest on Working Capital**

(1) Working capital requirements are calculated using the following components:

**(a) For Coal based-fired generating stations**

b) Cost of coal for one and a half months for pit-head generating stations and two months for non-pit-head generating stations, corresponding to target availability, respectively;

c) Cost of secondary fuel oil for two months corresponding to target availability;

d) Operation and Maintenance expenses for one month;

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

f) Receivables equivalent to two months of fixed and variable charges for sale of electricity calculated on target availability.

**(b) For Gas Turbine/Combined Cycle generating stations**

a) Fuel cost for one month corresponding to target availability duly taking into account the mode of operation of the generating station on gas fuel and liquid fuel;

b) Liquid fuel stock for fifteen days

c) Operation and maintenance expenses for one month;

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

e) Receivables equivalent to two months of fixed and variable charges for sale of electricity calculated on target availability.

2) Rate of interest on working capital to be computed as provided subsequently in these Regulations shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1st April of the financial year for which the generating station or the licensee files petition for Annual Revenue Requirement and tariff proposal. The interest on working capital shall be calculated on normative basis notwithstanding that the licensee or the generating company has not taken working capital loan from any outside agency.

**35. Depreciation**

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

a) The asset value for the purpose of depreciation shall be the historical cost of the assets as approved by the Commission where:

The opening asset's value recorded in the Balance Sheet as per the Transfer Scheme Notification shall be deemed to have been approved, subject to such modifications as may be found necessary upon audit of the accounts, if such a Balance Sheet is not audited. Consumer contribution or capital subsidy/ grant etc shall be excluded from the asset value for the purpose of depreciation.

b) For new assets, the approved/accepted cost for the asset value shall include foreign currency funding converted to equivalent rupee at the exchange rate prevalent on the date of foreign currency actually availed but not later than the date of commercial operation.

c) The salvage value of the assets shall be considered at 10% and depreciation shall be allowed upto maximum of 90 % of the capital cost of the asset.

d) Depreciation shall be calculated annually as per straight-line method at the rates specified in Appendix-III of CERC (Terms and Conditions of Tariff) Regulations, 2009.

Provided that land is not a depreciable asset and its cost shall be excluded from the capital cost while computing the historical cost of the asset.

e) 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.

f) The remaining depreciable value as on 31st March of the year closing after a period of 12 years from the date of commercial operation shall be spread over the balance useful life of the asset.

**36. Income Tax**

(1) Income Tax shall be treated as expense and shall be recoverable from the beneficiaries through tariff.

(2) The income tax actually payable or paid shall be included in the ARR. The actual assessment of income tax should take into account benefits of the tax holiday, and the credit carry forward losses applicable as per the provisions of the Income Tax Act 1961 shall be passed on to the consumers.

(3) Tax on income, if, any, liable to be paid shall be limited to tax on return on the equity component of capital employed. However any tax liability on incentives due to improved performance shall not be considered.

(4) Any under recovery or over-recovery of tax on income shall be adjusted every year on the basis of income tax assessment under the Income-Tax Act 1961 as certified by the statutory auditors.

**37. Expenses on secondary fuel oil consumption for coal-based, lignite-fired generating station**

(1) Expenses on secondary fuel oil in Rupees shall be computed corresponding to normative secondary fuel oil consumption (SFC) specified in clause (3) of Regulation 39, in accordance with the following formula:

**SFC x LPSFi x NAPAF x 24 x NDY x IC x 10**

Where,

SFC – Normative Specific Fuel Oil consumption in ml/kWh

LPSFi – Weighted Average Landed Price of Secondary Fuel in Rs./ml considered initially

NAPAF– Normative Annual Plant Availability Factor in percentage

NDY – Number of days in a year

IC - Installed Capacity in MW.

(2) Initially, the landed cost incurred by the generating company on secondary fuel oil shall be taken based on actuals of the weighted average price of the three preceding months and in the absence of landed costs for the three preceding months, latest procurement price for the generating station, before the start of the year.

(3) The secondary fuel oil expenses shall be subject to fuel price adjustment at the end of the each year of tariff period as per following formula:

**SFC x NAPAF x 24 x NDY x IC x 10 x (LPSFy – LPSFi)**

Where,

**LPSFy = The weighted average landed price of secondary fuel oil for the year in Rs. /ml**

**38. Computation and payment of capacity charge and energy charge for thermal generating stations**

**(A) Capacity Charge:**

(1) The fixed cost of a thermal generating station shall be computed on annual basis, based on norms specified under these regulations, and recovered on monthly basis under capacity charge.

The total capacity charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share / allocation in the capacity of the generating station.

(2) The capacity charge (inclusive of incentive) payable to a thermal generating station for a calendar month shall be calculated in accordance with the following formulae :

(a) Generating stations in commercial operation for less than ten (10) years on 1st April of the financial year :

**AFC x ( NDM / NDY ) x ( 0.5 + 0.5 x PAFM / NAPAF )** (in Rupees);

Provided that in case the plant availability factor achieved during a financial year (PAFY) is less than 70%, the total capacity charge for the year shall be restricted to

**AFC x ( 0.5 + 35 / NAPAF ) x ( PAFY / 70 )** (in Rupees).

(b) For generating stations in commercial operation for ten (10) years or more on 1st April of the year:

**AFC x ( NDM / NDY ) x ( PAFM / NAPAF )** (in Rupees).

Where,

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

NAPAF = Normative annual plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in percent:

PAFY = Plant availability factor achieved during the year, in percent

(3) The PAFM and PAFY shall be computed in accordance with the following formula:

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

Where,

AUX = Normative auxiliary energy consumption in percentage.

DCi = Average declared capacity (in ex-bus MW)

IC = Installed Capacity (in MW) of the generating station

N = Number of days during the period i.e. the month or the year as the case may be.

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

**(B) Energy Charge:**

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

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

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

(a) For coal based and lignite fired stations

**ECR = { (GHR – SFC x CVSF) x LPPF / CVPF + LC x LPL } x 100 / (100 – AUX)**

(b) For gas and liquid fuel based stations

**ECR = GHR x LPPF x 100 / {CVPF x (100 – AUX) }**

Where,

| | | |
|---|---|---|
| AUX | = | Normative auxiliary energy consumption in percentage. |
| CVPF | = | Gross calorific value of primary fuel as fired, in kCal per kg, per Litre or per standard cubic metre, as applicable. |
| CVSF | = | Calorific value of secondary fuel, in kCal per ml. |
| ECR | = | Energy charge rate, in Rupees per kWh sent out. |
| GHR | = | Gross station heat rate, in kCal per kWh. |
| LC | = | Normative limestone consumption in kg per kWh. |
| LPL | = | Weighted average landed price of limestone in Rupees per kg. |
| LPPF | = | Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month. |
| SFC | = | Specific fuel oil consumption, in ml per kWh. |

(3) The landed cost of fuel for the month shall include price of fuel corresponding to the grade and quality of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail / road or any other means, and, for the purpose of

computation of energy charge, and in case of coal/lignite shall be arrived at after considering normative transit and handling losses as percentage of the quantity of coal or lignite dispatched by the coal or lignite supply company during the month as given below :

| | | |
|---|---|---|
| Pit head generating stations | : | 0.2% |
| Non-pit head generating stations | : | 0.8% |

**39. Norms of Operation**

Recovery of capacity charge, energy charge and incentive by the generating company shall be based on the achievement of the operational norms

The norms of operation as given below shall apply to thermal generating stations

**(1) Normative Annual Plant Availability Factor (NAPAF)**

| | |
|---|---|
| (a) All Thermal generating station | 85 % |
| (b) Lignite fired generating station using Circulatory Fluidized Bed Combustion (CFBC) Technology | |
| (i) First three years from COD | 75 % |
| (ii) From next year after completion of 3 years of COD | 80 % |

**(2) Gross Station Heat Rate**

(i) Coal-based thermal power generating stations,

| | |
|---|---|
| During stabilization period | 2600 kCal / kWh |
| Subsequent period | 2500 kCal / kWh |

(ii) Gas Turbine / Combined Cycle generating stations

| | |
|---|---|
| Open cycle | 2830 kCal / kWh |
| Combined cycle | 1950 kCal / kWh |

**(c) Secondary fuel oil consumption**

| | | |
|---|---|---|
| (i) Coal-based generating stations | - | 1.0 ml / kwh |
| (ii) Lignite fired generating stations | - | 2.0 ml/kWh |

**(d) Auxiliary Energy Consumption**

(a) Coal-based generating stations with natural draft cooling tower or without cooling tower:

| | | |
|---|---|---|
| (i) 200 MW series | - | 8.5% |
| (ii) 500 MW and above | | |
| Steam driven boiler feed pumps | - | 6.0% |
| Electricity driven boiler feed pumps | - | 8.5% |

Provided that for thermal generating stations with induced draft cooling towers, the norm shall be further increased by - 0.5%

(b) Gas turbine / combined cycle generating stations:

(i) Combined cycle - 3.0%

(ii) Open cycle - 1.0%

(c) Lignite fired thermal generating stations:

(iii) All generating stations with 200 MW sets and above:

The auxiliary energy consumption norms shall be 0.5% more than the auxiliary consumption norms of coal-based generating stations as in (d) (a) above

For lignite fired stations using CFBC technology the auxiliary consumption norm shall be 1.5% more than the auxiliary consumption norms of coal based generating stations as in (iv) (a) above.

**40. SLDC and Connectivity Charges**

(1) SLDC and Connectivity charges are determined by the Commission and payable by the generating companies shall be considered as expenses.

(2) SLDC and Transmission charges paid for the energy sold outside the state shall not be considered as expenses for determining generation tariff.

**41. Other Income**

Income other than income from sale of energy and UI charges gained (after introduction of intra state ABT) shall be grouped as other income. UI penalties shall not be netted off from other income. The UI penalties shall be borne by the generating company.

**42. 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.

**43. Unscheduled Interchange Charges**

(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 shall be worked out for each 15 minutes time

block. Charges for all UI transactions shall be based on average frequency of the time block and rates as specified by CERC from time to time.

(2) UI charges for intra-state transactions will arise after intra-state ABT is notified by the Commission and becomes effective.

**44. Rebate**

(1) For payment of bills of generating company through letter of credit on presentation, a rebate of 2% shall be allowed.

(2) Where payments are made subsequently within a period of one month of presentation of bills by the generating company, a rebate of 1% shall be allowed.

**45. Late Payment surcharge**

In case the payment of any bill for charges payable under these regulations is delayed by a beneficiaries beyond a period of two months from the date of billing a late payment surcharge at the rate of 1.25% per month shall be levied by the generating company.

## B: HYDRO POWER GENERATING STATION

### 46. Definitions

Unless the context otherwise requires for the purpose of this part

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

(b) **"Capacity Index"** means the average of the daily capacity indices over one year;

(c) **"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:

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

**(d) "Declared Capacity" (DC)**

i) 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 a 24 hours period.

ii) 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;

(e) **"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.

(f) **"Design Energy"** shall mean the quantum of energy, which could be generated in a 90% dependable year with 95% installed capacity of the generating station.

(g) **'Date of Commercial operation or COD'** means

In relation to a unit of hydro generating station, the date declared by the generating company from 0000 hours of which, after notice to the beneficiaries, scheduling process in accordance with the Indian Electricity Grid Code is fully implemented, and in relation to the generating station as a whole, the date declared by the generating company after demonstrating peaking capability corresponding to installed capacity of the generating station through a successful trial run, after notice to the beneficiaries:

**Note:**

1. In case the hydro generating station with pondage or storage is not able to demonstrate peaking capability corresponding to the installed capacity for the reasons of insufficient reservoir or pond level, the date of commercial operation of the last unit of the generating station shall be considered as the date of commercial operation of the generating station as a whole, provided that it will be mandatory for such hydro generating station to demonstrate peaking capability equivalent to installed capacity of the generating unit or the generating station as and when such reservoir / pond level is achieved.
2. In case of purely run-of-river hydro generating station if the unit or the generating station is declared under commercial operation during lean inflows period when the water is not sufficient for such demonstration, it shall be mandatory for such hydro generating station or unit to demonstrate peaking capability equivalent to installed capacity as and when sufficient inflow is available.

(h) **'Infirm Power'** means electricity generated prior to commercial operation of the Unit of a generating station.

(i) **"Maximum Available Capacity"** shall mean the following:

(i) 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,

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

(ii) 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.

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

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

(l) **“Run –of-river power station with pondage”** means a hydro electric power generating station with sufficient pondage for meeting the diurnal variation of power demand;

(m) **“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;

(n) **“Saleable Primary Energy”** means the quantum of primary energy available for sale (ex-bus) after allowing for free energy to home state, if any.

(o) **“Secondary Energy”** means the quantum of energy generated in excess of the design energy on per year basis at the generating station;

(p) **“Saleable Secondary Energy”** means the quantum of secondary energy available for sale (ex-bus) after allowing for free energy to home state, if any.

(q) **“Scheduled Energy”** means the quantum of energy to be generated at the generating station over the 24-hours period, as scheduled by the State Load Dispatch Centre;

(r) **‘Useful Life’** means in respect of a hydro generating station 35 years.

**47. Tariff Filing**

(1) The generating company shall file the petition for Annual revenue Requirement (ARR) and determination of tariff for supply of electricity to distribution licensees in the manner specified in Chapter-2 of these regulations.

(2) (a) In case of a new generating station, a generating company shall file petition for determination of provisional tariff in advance of the anticipated date of commissioning of a generating station based on the capital expenditure actually incurred up to the date of making the petition or a date prior to making of the petition, duly audited and certified by the statutory auditors and the provisional tariff shall be charged from the date of commercial operation of the generating station.

(b) A generating company shall file a fresh petition as per these regulations, for determination of final tariff of a generating station mentioned in clause (2) above based on actual capital expenditure incurred up to the date of commercial operation of the generating station duly certified by the statutory auditors based on annual audited accounts.

(3) Any difference between the provisional tariff and the final tariff determined by the Commission and not attributable to the generating company may be adjusted in the tariff for the following year as directed by the Commission.

**48. Tariff determination**

(1) Existing Generating Station

Where the Commission has, at any time prior to the notification of these Regulations, approved a Power Purchase Agreement (PPA) or arrangement between a Generating Company and a beneficiary, or has adopted the tariff contained therein for supply of electricity from an existing generating station then the tariff for supply of electricity by the Generating Company to the Distribution Licensee shall be in accordance with such PPA or arrangement for such period as may be so approved or adopted by the Commission, to the extent of existing Installed Capacity as contained in the PPA.

(2) New Generating Station

Where the generating station has been declared under commercial operation from a date after the issue of these regulations the tariff for supply of electricity by the Generating Company shall be decided in accordance with these regulations.

**49. Capital Cost**

(1) The actual capital expenditure on the date of commercial operation in the case of new investment shall be subject to prudence check by the commission.

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

(3) In case of any abnormal delay in execution of the project causing cost and time overruns attributable due to the failure of the utility, the Commission may not approve the full capitalization of interest and overhead expenses.

(4) Where power purchase agreement entered into between generating company and the beneficiary provides for a ceiling of actual expenditure, the capital expenditure to be considered shall not exceed such ceiling.

(5) The capital cost may include capitalized initial spares up to 1.5% of original Project cost.

(6) The project cost already admitted by the Commission for purpose of tariff determination shall be considered as the original project cost.

(7) The Commission shall issue guidelines for:

a. Verifying the capital cost of Hydro electric projects by an independent agency or expert and in such a case, the capital cost as vetted by such agency or expert may be considered by Commission while determining the tariff for hydro generating station.

b. Scrutiny and approval of commissioning schedule for hydro electric power projects of a developer, not being a state controlled or owned company as envisaged in the tariff policy, as amended in GOI Resolution No. 23/2/2005-R&R (Vol IV) dated 31.3.2008.

(8) In case the site of a hydro generating station is awarded to a developer (not being a state controlled or owned company), by a State Government by following a two stage transparent process of bidding, any expenditure incurred or committed to be incurred by the project developer for getting the project site allotted shall not be included in the capital cost.

Provided the capital cost in case of such hydro station shall include:

(a) Cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity of National R&R policy and (R&R) package as approved; and

(b) Cost of the developer's 10% contribution towards Rajiv Gandhi Grameen, Vidyutikaran Yojana (RGGVY) project in affected area:

**50. Additional Capitalization**

(1) The following capital expenditure, actually incurred after the date of commercial operation and upto the cut off date may be admitted by the Commission subject to prudence check provided the same was part of the original scope of work of the project.

a) Undischarged liabilities,

b) Works deferred for execution,

c) Procurement of initial capital spares in the original scope of works subject to the ceiling specified above.

d) Liabilities to meet award of arbitration or compliance of the order or decree of a court, and

e) On account of change in law.

Provided that the details of works included in the original scope of work along with estimates of expenditure shall be submitted along with the application for determining of tariff.

(2) The capital expenditure of the following nature actually incurred after the cut-off date may be admitted by the Commission, subject to prudence check:

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

(3) Any expenditure on acquiring minor items or assets, brought after the cut off date like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machine, heat-convectors, mattresses, carpets, etc. shall not be considered for additional capitalization for determination of tariff with effect from 1-4-2010.

**50(a) Renovation and Modernisation**

1) The generating company for meeting the expenditure on renovation and modernization (R&M) for the purpose of extension of life beyond the useful life of the generating station or a unit thereof, shall make an application before the Commission for approval of the proposal with a detailed project report giving complete scope, justification, cost benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost (including foreign exchange component, if any) record of consultation with beneficiaries and any other information considered to be relevant by the generating company.

2) Where generating company makes an application for approval of its proposal for renovation and modernization the Commission shall give its approval after due consideration of reasonableness of cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost benefit analysis and such other factors which the Commission may consider relevant.

**3)** Any expenditure incurred or projected to be incurred and admitted by the Commission after prudent check, based on estimates for renovation and modernization already recovered from original project cost, shall form the basis for determination of tariff.

**51. Debt equity ratio**

1) For the purpose of determination of tariff, debt-equity ratio in the case of a new generating station commencing commercial operations after the notification of these regulations shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance shall be treated as normative loan. Where actual equity employed is less than 30%, the actual equity employed shall be considered.

2) In the case of existing generating stations the debt equity ratio as per the Balance Sheet on the date of the Transfer notification will be the debt equity ratio for the first year of operation, subject to such modification as may be found necessary upon audit of the accounts if such Balance Sheet is not audited.

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

4) Any expenditure incurred or projected to be incurred after notification of these Regulations as may be admitted by the Commission as additional capital expenditure for determination of tariff and renovation and modernization expenditure for life extension shall be served on the manner indicated in sub-regulation (1) above.

**52. Components of tariff**

(1) Tariff for supply of electricity from a hydro power generating station shall comprise of two parts, namely, annual capacity charges and energy charges to be in the manner provided hereinafter.

(2) The fixed cost of a generating station eligible for recovery through annual capacity charges shall consist of:

(a) Return on equity as may be allowed
(b) Interest on Loan Capital;
(c) Operation and maintenance expenses;
(d) Interest on Working Capital;
(d) Depreciation, including Advance Against Depreciation as may be allowed.

(f) Taxes on Income

(3) The annual capacity charges recoverable shall be worked out by deducting other income from the total expenses.

**53. Return on Equity**

(1) Return on equity shall be computed on the equity base determined in accordance with regulation 51 and shall not exceed 14 %.

Provided that incase if projects commissioned after notification of these Regulations an additional return of 0.5 % shall be allowed if such projects are completed within the time line specified in CERC Tariff Regulations, 2009. (Refer Annuxure-1)

Provided that in case of projects commissioned after the notification of these regulations an additional return of 1.5 % shall be allowed if such projects are completed within the original sanctioned project cost without <u>any time or </u>cost over run, <u>whatsoever</u>.

Provided that equity invested in a foreign currency may 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.

(2) The premium received while issuing share capital shall be treated as a part of equity provided the same is utilized for meeting capital expenditure.

(3) Internal resources created out of free reserves and utilized for meeting the capital expenditure shall also be treated as a part of equity.

(4) Foreign equity will also attract the same rate of return.

**54. Interest and finance charges on loan capital**

(1) Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreements, bond or debenture and the lending rate prevailing therein.

Provided that the outstanding loan capital shall be adjusted to be consistent with the loan amount determined in accordance with Regulation 51.

(2) The interest and finance charges attributable to Capital Work in Progress shall be excluded.

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

(4) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefit shared between the beneficiaries and the generating company in a ratio as may be specified by the Commission as envisaged in Regulation 13.2.

(5) 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.

**55. Operation and maintenance expenses**

(1) Operation and Maintenance Expenses (O & M Expenses) shall mean the total of all expenditure under the following heads: -

(a) Employee Cost

(b) Repairs and Maintenance

(c) Administration and General Expenses.

(2) Operation and maintenance expenses (O&M Expenses) for the existing generating stations, which have been in operation for 5 years or more in the base year 2007-08 shall be derived on the basis of actual operation and maintenance expenses for the year 2003-04 to 2007-08, based on the audited accounts, excluding abnormal operation and maintenance expenses, if any, after prudent check by the Commission.

(3) The normalized operation and maintenance expenses after prudent check, for the years 2003-04 to 2007-08, shall be escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses at the 2007-08 price level and then averaged to arrive at normalized O&M expenses for 2003-04 to 2007-08 price level. The average normal O&M expenses at 2007-08 price level shall be escalated at the rate of 5.72% to arrive at the O&M expenses for the year 2009-10.

(4) The O&M expenses for the year 2009-10 shall be further rationalized considering 50% increase in employee cost on account of pay revision of employees to arrive at the permissible O&M expenses for the year 2009-10.

(5) The O&M expenses for 2009-10 shall be escalated further at the rate of 5.72% per annum as arrive at the operation and maintenance expenses for the subsequent years of the tariff period.

(6) In the case of hydro generating station which has not been in commercial operation for a period of 5 years as on 01/04/2009 O&M expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works). In such a case, O&M expenses for the first year of commercial operation shall be escalated at 5.17% per annum upto the year 2007-08 and then averaged to arrive at the O&M expenses at 2007-08 price level and thereafter escalated at 5.72% per annum to arrive at the O&M expense in respective year of the tariff period.

(7) In case of hydro generating stations declared under commercial operation on or after 01/04/2009, O&M expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works) and shall be subject to annual escalation at 5.72% for the subsequent years.

**56. Interest on Working capital**

(1) Working Capital shall cover:

1) Operation and Maintenance expenses for one month;
2) Maintenance spares at the rate of 15% of operation and maintenance expenses specified in Regulation 55 above escalated at the rate of 6% per annum from the date of commercial operation and
3) Receivables equivalent to two months of fixed cost.

(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 1st April of the financial year for which the generating station files petition for annual Revenue Requirement and tariff proposal. The interest on working capital shall be calculated on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency.

**57. Depreciation**

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

a) The asset value for the purpose of depreciation shall be the capital cost of the assets as admitted by the Commission where:
The opening asset's value recorded in the Balance Sheet as per the Transfer Scheme Notification shall be deemed to have been approved, subject to such modifications as may be found necessary upon audit of the accounts, if such a Balance Sheet is not audited.

b) For new assets, the approved/accepted cost for the asset value shall include foreign currency funding converted to equivalent rupee at the exchange rate prevalent on the date of foreign currency actually availed but not later than the date of commercial operation.

c) The salvage value of assets shall be as provided in the agreement signed by the developer with the State Government for creation of the asset.

d) The capital cost of the assets of the Hydro generating station for the purpose of computation of depreciable value shall be correspond to the percentage of sale of electricity under long-term power purchase agreement of regulated tariff.

e) The land other than the land under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while calculating depreciable value of the asset.

f) Depreciation shall be calculated annually as per straight – line method at the rates specified in Appendix-III of CERC (Terms and Conditions of Tariff) of Regulations, 2009.

g) The remaining depreciable value as on 31$^{st}$ March of the year closing after a period of 12 years from the date of commercial operation shall be spread over the balance useful life of the asset.

h) Incase of existing projects the balance depreciable value as on 1-4-2010 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31-3-2010 from the gross depreciation value of asset.

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

## 58. Income Tax

(1) Income Tax shall be treated as expense and shall be recoverable from consumers through tariff.

(2) The income tax actually payable or paid shall be included in the ARR. The actual assessment of income tax should take into account benefits of the tax holiday, and the credit carry forward losses applicable as per the provisions of the Income Tax Act 1961 shall be passed on to the consumers.

(3) Tax on income, if, any liable to be paid shall be limited to tax on return on the equity component of capital employed. However any tax liability on incentives due to improved performance shall not consider.

(4) Any under recovery or over-recovery of tax on income shall be adjusted every year on the basis of income tax assessment under the Income-Tax Act 1961 as certified by the statutory auditors.

## 59. Computation and payment of capacity charge and energy charge for Hydro generating stations.

**(A) Capacity Charges:**

(1) The fixed cost of a hydro generating station shall be computed on annual basis, based on norms specified under these regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and energy charge, which shall be payable by the beneficiaries in proportion to their respective allocation in the saleable capacity of the generating station, that is to say, in the capacity excluding the free power to the home State:

Provided that during the period between the date of commercial operation of the first unit of the generating station and the date of commercial operation of the generating station, the annual fixed cost shall provisionally be worked out based on the latest estimate of the completion cost for the generating station, for the purpose of determining the capacity charge and energy charge payment during such period.

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

**= AFC x 0.5 x NDM / NDY x ( PAFM / NAPAF )** (in Rupees)

Where,

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

NAPAF= Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in percentage

(3) The PAFM shall be computed in accordance with the following formula:

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

Where,

AUX = Normative auxiliary energy consumption in percentage

DCi = Declared capacity (in ex-bus MW) for the ith day of the Month which the station can deliver for at least three (3) hours, as certified by the nodal load dispatch centre after the day is over.

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

N = Number of days in the month

**(B) Energy Charges:**

(1) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding free energy, if any, during the calendar month, on ex power plant basis, at the computed energy charge rate. Total Energy charge payable to the generating company for a month shall be :

**= (Energy charge rate in Rs. / kWh) x {Scheduled energy (ex-bus) for the month in kWh} x (100 – FEHS) / 100.**

(2) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis, for a hydro generating station, shall be determined up to three decimal places based on the following formula, subject to the provisions of clause (7) :

**ECR = AFC x 0.5 x 10 / { DE x ( 100 – AUX ) x ( 100 – FEHS )}**

Where,

DE = Annual design energy specified for the hydro generating station, In MWh, subject to the provision in clause (6) below.

FEHS = Free energy for home State, in per cent, as defined in regulation 32.

(3) In case actual total energy generated by a hydro generating station during a year is less than the design energy for reasons beyond the control of the generating company, the following treatment shall be applied on a rolling basis:

(i) in case the energy shortfall occurs within ten years from the date of commercial operation of a generating station, the ECR for the year following the year of energy shortfall shall be computed based on the formula specified in clause (5) with the modification that the DE for the year shall be considered as equal to the actual energy generated during the year of the shortfall, till the energy charge shortfall of the previous year has been made up, after which normal ECR shall be applicable;

(ii) in case the energy shortfall occurs after ten years from the date of commercial operation of a generating station, the following shall apply:

Suppose the specified annual design energy for the station is DE MWh, and the actual energy generated during the concerned (first) and the following (second) financial years is A1 and A2 MWh respectively, A1 being less than DE. Then, the design energy to be considered in the formula in clause (5) of this Regulation for calculating the ECR for the third financial year shall be moderated as (A1 + A2 – DE) MWh, subject to a maximum of DE MWh and a minimum of A1 MWh.

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

(4) In case the energy charge rate (ECR) for a hydro generating station, as computed in clause (5) above, exceeds eighty paise per kWh, and the actual saleable energy in a year exceeds { DE x ( 100 – AUX ) x ( 100 – FEHS ) / 10000} MWh, the Energy charge for the energy in excess of the above shall be billed at eighty paise per kWh only:

Provided that in a year following a year in which total energy generated was less than the design energy for reasons beyond the control of the generating company, the energy charge rate shall be reduced to eighty paise per kWh after the energy charge shortfall of the previous year has been made up.

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

**60. Norms of operation**

The norms of operation shall be as under:

**(1) Normative annual plant availability factor (NAPAF)**

(a) Storage and pondage type plants where plant availability is not affected by silt and

(i) with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of upto 8 % ………………………. 90 %

(ii) with head variation between FRL and MDDL of more than 8%

= (Head of MDDL/Rated Head) x 0.5+0.2

(b) Pondage type plant where plant availability is significantly affected by silt ….. 85%

(c) Run –of- River type plants: NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available / relevant.

***Note:***

*(i) A further allowance may be made by the Commission under special circumstances, eg. Abnormal silt problem or other operating conditions, and known plant limitations.*

*(ii) A further allowance of 5 % may be allowed for difficulties in the North East Region.*

*(iii) In case of new hydro electric project the developer shall have the option of approaching the Commission in advance for further above norms.*

**(2) Auxiliary energy consumption:**

(a) Surface hydro electric power generating stations with rotating exciters mounted on the generator shaft ………… …0.7% of energy generated.

(b) Surface hydro electric power generating stations with static excitation system……………………………………………1.0% of energy generated.

(c) Underground hydro electric power generating stations with rotating exciters mounted on the generator shaft ….0.9% of energy generated.

(d) Underground hydro electric power generating stations with static excitation system ……………………………………..…1.2% of energy generated.

**(3) Transformation losses**

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

**61. Connectivity and SLDC Charges**

Connectivity charges and SLDC charges as determined by the Commission shall be considered as expenses. SLDC and transmission charges paid for energy sold outside the state shall not be considered as expenses for determining generation tariff.

**62. Other income**

All Income other than income from sale of energy and net U I charges gained (after introduction of intra-state ABT) shall be grouped as other income. UI penalties shall not be netted off from other income. The UI penalties shall be borne by the generating company.

**63. 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 the same as primary energy rate of the generating station.

**64. Incentive for completion of hydro electric power generating stations ahead of schedule**

(1) In case of commissioning of a hydro electric power generating station or an unit thereof ahead of schedule, the generating station shall become eligible for incentive of an amount equal to the pro-rata amount of reduction in interest during construction achieved by such commissioning, ahead of schedule.

Provided the hydro generating station shall obtain the Commission's approval of project calendar, prior to its implementation for the purpose of claiming the incentive (s).

(2) The incentive shall be recovered through tariff in twelve equal monthly installments during the first year of operation of the generating station.

(3) In case of delay in commissioning, interest during construction for the period of delay shall not be allowed to be capitalized for determination of tariff, unless the delay is not attributable to the generating Company.

**65. Unscheduled Interchange (UI) charges (Intra State ABT scenario)**

(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 shall be worked out for each 15 minutes time block. Charges for all UI transactions shall be based on average frequency of the time block and rates as specified by CERC from time to time.

(2) UI charges for intra-state transactions will arise after intra-state ABT is notified by the Commission and becomes effective.

**66. Rebate**

(1) For payment of bills of the generating company through letter of credit on presentation, a rebate of 2% shall be allowed.

(2) Where payments are made subsequently within a period of one month of presentation of bills by the generating company, a rebate of 1% shall be allowed.

**67. Late payment surcharge**

In case the payment of any bills for charges payable under these regulations is delayed by a beneficiary beyond a period of two month from the date of billing a late payment surcharge at the rate of 1.25% per month shall be levied by generating company.

# Chapter – 5:
# TRANSMISSION TARIFF

**68. Definitions**

a) **“Availability”** in relation to a transmission system for a given period shall mean the time in hours during that period in which the transmission system is capable of transmitting electricity at its rated voltage to the delivery point and shall be expressed in percentage of total hours in the given period. The procedure specified in CERC Tariff Regulations 2009 may be followed. (Refer Annexure-III).

b) **‘Aggregate Revenue Requirement’** or ‘ARR’ means the costs pertaining to the licensed business which are permitted, in accordance with these Regulations, to be recovered from the tariffs and charges determined by the commission.

c) **‘Allotted Transmission Capacity’** means and include 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 of allotment of capacity shall be constructed accordingly.

d) **“Connectivity”** means arrangement to facilitate interconnection of a licensee point, open access customer point and generating station point with arrangement to control the circuit with suitable switchgear including protection, communication and metering arrangement.

e) **“Connectivity Charge”** means charge to be recovered for cost of arranging connectivity from concerned agency for availing the connection.

f) **“Contracted Power”** means the power in MW which the transmission licensee has agreed to carry for the customer as per transmission service agreements or otherwise.

g) **‘Date of Commercial operation’** in relation to the transmission system, the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful charging and trail operation:

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

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

h) **'Long Term Transmission Customers'** means a person availing or intending to avail access to the intra-state transmission system for a period of twenty five years or more.

i) **"Open Access Customers"** means a consumer permitted by the 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.

j) **"Rated Voltage"** means the 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 customers.

k) **"Transmission"** means conveyance of electricity by means of transmission lines.

l) **"Transmission Services Agreement"** means an agreement entered into between a transmission licensee and the open access customer to avail access to the licensee's transmission system for the transmission of electricity.

m) **"Transmission System"** means a line with associated sub-stations or a group of lines interconnected together along with associated sub-stations and the term includes equipment associated with transmission lines and sub-stations.

n) **'Transmission Business'** means the business of transmission of electricity by a Transmission Licensee to a beneficiary and permitted open access customers.

o) **"Transmission Licensee"** means a licensee authorized to establish or operate transmission lines.

p) **'Useful Life'** means in relation to a unit or transmission system (line) from COD shall'35 Years'

### 69. Filing

(1) The Transmission Licensee shall file the petition for approval of Annual Revenue Requirement (ARR) and Transmission tariff in the manner specified in Chapter-2 of these regulations, unless extension is granted upon application.

(2) The fillings shall contain the following

a) The transmission system usage forecast

b) Proposal for transmission tariff, supported by adequate justification

c) Expected revenue from the licensed business, non-tariff income, income from other business and other matters.
d) Such other information as the Commission may direct from time to time.

**70. Capital Cost**

(1) The actual capital expenditure as on the date of commercial operation in the case of new investment shall be subject to prudence check by the Commission.
(2) Investments made prior to and up to 31st March immediately preceding the date of the notification of these regulations or date of receipt of a petition of tariff determination whichever is earlier shall be considered on the basis of audited accounts or approvals already granted by the Commission.
(4) Scrutiny of the capital cost estimates by the Commission shall include the reasonableness, financing plan, interest during construction, use of efficient technology, gestation period and such other matters relevant for determination of tariff.
(5) Swapping of debt and equity shall be permitted provided it does not affect tariff charges adversely. The benefits accruing from such swapping shall pass on to the consumers.
(6) In case of any abnormal delay in execution of the project causing cost and time overruns attributable to the failure of the Licensee, the Commission may not approve the full capitalization of interest and overhead expenses but may limit it to a reasonable amount.
(7) Where transmission service agreement entered into between the transmission licensee and the long term transmission customers provides for ceiling of actual expenditure, the capital expenditure admitted by the Commission shall take into consideration such ceiling for determination of tariff.
(8) Initial spares shall be capitalized as a percentage of the original project cost, subject to the following ceiling norms

| | |
|---|---|
| (a) Transmission | 0.75 % |
| (b) Transmission substation | 2.5 % |
| (c) Service compensation devices and HVDC station | 3.5 % |

**71. Additional Capitalization**

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

(d) Undischarged liabilities,

(e) Works deferred for execution,

(f) Procurement of initial capital spares in the original scope of works subject to the ceiling norm of 1.5% of the original project cost.

(g) Liabilities to meet award of arbitration or for compliance of the order or decree of a court, and

(h) On account of change in law.

Provided that the details of works included in the original scope of works along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff to the Commission.

(2) The capital expenditure incurred on the following nature actually incurred after the cut-off date may be admitted by the Commission, subject to prudence check:

(a) Deferred liabilities relating to works/services within the original scope of work,

(b) Liabilities to meet award of arbitration or compliance of the order or decree of court,

(c) On account of change in law, and

(d) Any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase in fault level, emergency restoration system, insulator cleaning infrastructure, replacement or damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of the transmission system.

(3) Any expenditure on minor items / assets bought after the cut off date like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat-convectors, mattresses, carpets, etc. shall not be considered for additional capitalization for determination of tariff.

***Note***

*The list of items is illustrative and not exhaustive.*

**71(a) Renovation and Modernisation**

(1) A transmission licensee shall make an application before the commission for approval of a proposal for meeting expenditure on renovation and modernization (R&M) for the purpose of extension of life of a unit or the transmission system along with a detailed project report giving complete scope, justification, cost benefit analysis, estimated life extension from a reference date, financing package, phasing

of expenditure, schedule of completion, reference price level, estimated completed cost including foreign exchange component, if any, record of consultation with beneficiaries and any other information considered to be relevant by the transmission licensee.

(2) Where the transmission licensee makes an application for approval of its proposal for renovation and modernization, the Commission shall accord approval after due consideration of the reasonableness of the cost estimates, financing package, schedule of completion, interest during construction, use of efficient technology, cost benefit analysis and such other factors as may be considered necessary.

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

**72. Debt-equity ratio**

(1) For the purpose of determination of tariff, debt-equity ratio in the case of existing, ongoing as well as new projects commencing after the date of notification of these regulations shall be 70:30. Where equity employed is more than 30%, of the capital cost the amount of equity for the purpose of tariff shall be limited to 30% and the balance shall be treated as loan. Where actual equity employed is less than 30%, of the capital cost the actual equity employed shall be considered.

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% is in the interest of general public.

The debt and equity amounts arrived at in accordance with clause (1) above shall be used for calculating interest on loan, return on equity, advance against depreciation and foreign exchange rate variation.

Any expenditure incurred or projected to be incurred after notification of these Regulations as may be admitted by the Commission as additional capital expenditure for determination of tariff and renovation and modernization expenditure for life extension shall be served on the manner indicated in sub-regulation (1) above.

**73. Annual Revenue Requirement**

(1) The annual expenditure of the Transmission Licensee shall comprise of the following components:

(a) Return on Equity as may be allowed

(b) Interest on Loan capital

(c) Operation and Maintenance expenses

(d) Interest on Working Capital

(e) Depreciation as may be allowed

(f) Taxes on Income

(g) Annual License Fee

(2) The net annual revenue requirement of a transmission licensee shall be worked out by adjusting the following in the annual revenue requirement computed under clause (1) above:

(a) Income from surcharge and additional surcharge from open access consumers if any,

(b) Transmission and / or wheeling charges recovered from open access customers, if any

(c) Authorized portion of Income / Revenue from other business engaged in by the Licensee for optimum utilization of assets, if any.

**74. Return on Equity**

(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 72 and shall not exceed 14 %.

Provided that in case of projects commissioned on or after 1-4-2010, an additional return of 0.5 % shall be allowed if such projects are completed within the time line specified in Appendix – II of CERC (Terms and Conditions of Tariff) Regulations, 2009. (Refer Annexure-2).

Provided that an additional return of 1.5 % shall be allowed if such projects are completed within the original sanctioned project cost without any cost over run.

Provided that equity invested in a foreign currency may 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.

(2) The equity amount appearing in the Balance Sheet as per Transfer scheme notification will be considered for the purpose of considering the return for the first year of operation.

(3) The premium received while issuing share capital shall be treated as a part of equity provided the same is utilized for meeting capital expenditure.

(4) Internal resources created out of free reserves and utilized for meeting the capital expenditure shall also be treated as a part of equity.

(5) Foreign equity will also attract the same rate of return.

**75. Interest and finance charges on loan capital**

(1) Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreements, bond or debenture and the prevailing lending rate of bank and financial institution specified therein.

Provided that the outstanding loan capital shall be adjusted to be consistent with the loan amount determined in accordance with regulation 72.

(2) The interest and finance charges attributable to Capital Work in Progress shall be excluded.

(3) The transmission licensee shall make every effort to swap loans as long as it results in net benefit to the beneficiaries. The costs associated with such swapping shall be borne by the beneficiaries.

(4) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefit shared between the beneficiaries and the licensee in a ratio 50:50.

(5) 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.

**76. Operation and Maintenance Expenses**

(1) Operation and Maintenance Expenses or O&M Expenses shall mean the total of all expenditure under the following heads:-

(a) Employee Cost

(b) Repairs and Maintenance

(c) Administration and General Expenses.

(2) The Licensee shall submit O&M expenses budget indicating the expenditure under each head of account showing actuals of the last financial year, estimates for the current year and projections for the next financial year.

(3) The norms for O&M expenses on the basis of circuit kilometers of transmission lines, transformation capacity and number of bays in substations shall be submitted for approval of the Commission.

(4) The Commission shall verify the budget estimates and projections and allow the expenditure depending on its views about the reasonableness of the projections.

(5) Increase in O& M expenses due to natural calamities or insurgency or other factors not within its control may be approved by the Commission.

**77. Interest on Working Capital**

(1) Working capital shall cover,

(a) Operation and maintenance expenses for one month;

(b) Budget for maintenance spares at the rate of 1% of the historical cost escalated at the rate of 6% per annum from the date of commercial operation and

(c) Receivables equivalent to two months 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 1st April of the financial year for which the licensee files petition for annual Revenue Requirement and tariff proposal. The interest on working capital shall be calculated on normative basis not withstanding that the licensee has not taken working capital loan from any outside agency.

**78. Depreciation**

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

(a) The asset value for the purpose of depreciation shall be the capital cost of the assets as admitted by the Commission where:

The opening asset's value recorded in the Balance Sheet as per the Transfer Scheme Notification shall be deemed to have been approved, subject to such modifications as may be found necessary upon audit of the accounts, if such a Balance Sheet is not audited. Consumer contribution or capital subsidy/ grant etc shall be excluded from the asset value for the purpose of depreciation.

(b) For new assets, the approved/accepted cost for the asset value shall include foreign currency funding converted to equivalent rupee at the exchange rate prevalent on the date of foreign currency actually availed but not later than the date of commercial operation.

(c) Depreciation shall be calculated annually as per straight-line at the rates specified in Appendix – II of CERC (Terms and Conditions of Tariff) Regulations 2009 (Refer Annexure-II) of these regulations:

Provided that land is not a depreciable asset and its cost shall be excluded from the capital cost while computing the capital cost of the asset.

(d) The salvage value of the asset shall be 10 % and the depreciation shall be allowed upto a maximum of 90 % of the capital cost of the asset.

(e) Incase of existing projects the balance depreciable value as on 1-4-2010 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31-3-2010.

(f) 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.

**79. Income Tax**

(1) Income Tax on the Licensed business of the Transmission Licensee shall be treated as expense and shall be recoverable from consumers through tariff. However, tax on any income other than that of its Licensed business shall not be a pass through, and it shall be payable by the Transmission Licensee itself.

(2) The income tax actually payable or paid shall be included in the ARR. The actual assessment of income tax should take into account benefits of the tax holiday, and the credit carry forward losses applicable as per the provisions of the Income Tax Act 1961 shall be passed on to the consumers.

(3) Tax on income, if, any liable to be paid shall be limited to tax on return on the equity component of capital employed. However any tax liability on incentives due to improved performance shall not consider.

(4) Any under recovery or over-recovery of tax on income shall be adjusted every year on the basis of income tax assessment under the Income-Tax Act 1961 as certified by the statutory auditors.

**80. Norms of operation**

The norms of operation for the transmission licensee, subject to modifications thereof from time to time shall be as under:

**(a) Auxiliary Energy Consumption in the Sub-Station.**

The cost of auxiliary consumption in the sub-station for the purpose of air-conditioning, lighting, and consumption in other equipment shall be borne by the transmission licensee and considered as part of Operation and Maintenance expenses under the head General and Administration Overhead.

**(b) Target Availability of the Transmission System for recovery of full transmission charges.**

The Normative Annual Transmission Availability Factor (NATAF) of the Transmission System shall be 98%.

**81. Payment of transmission charges by customers**

(1) A transmission licensee shall be allowed to recover his net annual revenue requirement for financial year through transmission charges as one or combination of the following charges:

(a) Transmission charges which may consist of a fixed charge, demand charge and an energy charge or a combination of these;

(b) Connectivity charge, which shall be levied to meet the cost of connecting the customer to the licensee's transmission system;

(c) Parallel operation charge shall be levied for Captive Power Plant if the plant is connected with the grid.

(2) Transmission charges shall be calculated on a monthly basis.

(3) Transmission charges shall be recovered from distribution licensees and open access customers.

**82. Sharing of Transmission Charges**

In case of more than one beneficiaries of the transmission system, the monthly transmission charges leviable on each beneficiary shall be computed as per the following formula:

Transmission charges for transmission system payable for a month by the beneficiary of that transmission system = $\left[\frac{TC}{\ } - \frac{TRSC}{-}\right] \times \frac{CL}{SCL}$

Where,

TC = Annual Transmission Charges computed in accordance with Regulation 73.

CL = Allotted Transmission Capacity to the beneficiary.

SCL = Sum of the Allotted Transmission Capacities to all the beneficiaries of the State transmission system.

TRSC = Total recovery of transmission charges for the month from short-term transmission customers.

**83. Transmission losses and treatment thereof**

(1) The Commission shall fix the norm for transmission losses based on the loss reduction plan provided by the licensee.
The Commission shall make a periodical review of the reduction in transmission losses with reference to the norms fixed by it.

(2) In the case of failure to achieve the target for loss reduction, the Commission will not allow the excess over the norm as a pass through.

(3) Only Transmission Losses fixed as provided for in clause (1) above shall be debited to energy account of customers of the transmission system.

**84. Computation and payment of transmission charge for Intra-State Transmission system.**

(1) The fixed cost of the transmission system shall be computed on annual basis, in accordance with norms contained in these regulations, aggregated as appropriate, and recovered on monthly basis as transmission charge from the users, who shall share these charges in the manner specified in Regulation 82.

(2) The transmission charge (inclusive of incentive) payable for a calendar month for a transmission system or part thereof shall be

**AFC x (NDM / NDY) x (TAFM / NATAF)**

Where,

| | | |
|---|---|---|
| AFC | = | Annual fixed cost specified for the year, in Rupees |
| NATAF | = | Normative annual transmission availability factor, in per cent |
| NDM | = | Number of days in the month |
| NDY | = | Number of days in the year |
| TAFM | = | Transmission system availability factor for the month, in Percent, (Refer Annexure-III) |

**(3)** The transmission licensee shall raise the bill for the transmission charge (inclusive of incentive) for a month based on its estimate of TAFM.

## 85. Billing

Monthly bills shall be raised by the transmission licensee upon distribution licensees and open access customers for the transmission charges approved by the Commission and payments shall be made by the transmission customers directed to the transmission licensee.

## 86. Rebate

1) For payment of bills of transmission charges through letter of credit on presentation, a rebate of 2% shall be allowed.
2) Where payments are made without letter of credit within a period of one month of presentation of bills by the Transmission licensee, a rebate of 1% shall be allowed.

## 87. Late payment surcharge

In case the payment of bills of transmission charges by the distribution licensees and open access customers is delayed beyond a period of two months from the date of billing a late payment surcharge at the rate of 1.25% per month shall be levied by the transmission licensee.

# Chapter – 6:
# TARIFF FOR DISTRIBUTION LICENSEES

## 88. Definitions

Unless the context otherwise requires,

(a) **'Area of Supply'** means the area within which a distribution licensee is authorized by virtue of his license, to supply electricity in that area.

(b) **'Aggregate Revenue Requirement'** means the revenue required to meet the cost pertaining to the licensed business for a financial year, which would be permitted to be recovered through tariff and charges by the Commission.

(c) **'Base Year'** means the financial year immediately preceding the first year of the control period.

(d) **'Consumer'** means any person who is supplied with electricity for his own use by a licensee or a deemed licensee engaged in the business of supplying electricity to the public under the Act of 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 work of a licensee.

(e) **'Distribution Business'** means the business of operating and maintaining a distribution system for supplying electricity in the area of supply of the Distribution licensee.

(f) **'Distribution System'** means the system of wires and associated facilities between the delivery points on the transmission lines or the generating station connection and the point of connection to the installation of the consumers.

(g) **'Distribution licensee'** means a licensee authorized to operate and maintain a distribution system for supplying electricity to the consumers in his area or supply.

(h) **'Non-Tariff income'** means income relating to licensed business other than from tariff, for wheeling and retail sale and excludes income from other business and income on account of fuel surcharge adjustment, cross subsidy surcharge and additional surcharge.

(i) **'Open access'** means the non-discriminatory provision for use of transmission lines or distribution system or associated facilities with such lines or system by any lines or consumer or a person engaged in generation in accordance with the Regulations specified by the Commission.

(j) **'Other Business'** means any business engaged in by a Distribution Licensee under Section 51 of the act for optimum utilization of the assets of such Distribution Licensee and shall indicate any licensed business of the distribution licensee, other that the licensed business.

(k) **'Open access customer'** means a consumer permitted by the Commission to receive supply of electricity from a person other than a distribution licensee of his area of supply and the expression includes a generating company or a licensee who has availed of or intends to avail supply of power through open access.

(l) **'Retail Supply Business'** means the business of sale of electricity by a licensee to consumers in accordance with the terms and conditions specified in the distribution and retail supply licensee.

(m) **'Wheeling'** means the operation where by the distribution system and associated facilities of a transmission or distribution licensee, as the case may be, are used by another person for the conveyance of electricity on payment of charges to be determined under Section 62 of the Act.

**89. Application for Determination of Tariff**

(1) The Distribution licensee shall file an application for determination of tariff for retail distribution of electricity along with Annual Revenue Requirement (ARR) in the formats specified by the Commission in accordance with the procedure laid down by the Commission.

(2) The application for determination of tariff by the Distribution licensee shall be accompanied with following information besides Aggregate Revenue Requirement:-

(a) A statement showing current tariff and applicable terms and conditions of tariff.

(b) A statement showing Demand / Sales projection for different categories of consumers including slab wise consumption with a note on the method adopted to arrive at the projected growth rate.

(c) Energy requirement details with Aggregate Technical and Commercial loss and sources of procurement of power.

(d) A statement containing details of revenue realized during the current year category wise and expected revenue at the current tariff for the ensuring year or the period for which tariff is to be determined.

(e) A statement showing the subsidy received / receivable from Government at the existing tariff.

(f) A statement showing the changes in tariff proposed for each category of consumer and the estimated revenue at the revised tariff.

(g) A statement showing cross subsidy at revised tariff and subsidy committed by the Government, if any.

(h) Any other information as required by the Commission for determination of tariff for ensuing year.

## 90. Estimation of Sales

(1) The accurate projection of category-wise sales is very essential for the assessment of energy input requirement so as to determine the quantum of generation and quantum of energy to be purchased for the correct assessment of revenue requirement for generation and power purchase.

(2) The licensee may adopt a suitable methodology like CAGR to arrive at the category wise sales for the base year i.e., for the current year.

(3) The licensee shall submit the restricted demand due to system constraints (in MW), unrestricted demand (in MW) and sale of electricity (in MU) for different categories of consumers in its area of supply for previous year, estimated for the current year and forecast for ensuring year.

Provided where the category-wise unrestricted / restricted demand is not available, theses figures may be supplied for the area as a whole. The likely date, by which such data are likely to be available and the steps taken in this regard shall be furnished.

(4) The forecast for the ensuing year shall be on monthly basis to properly capture the seasonality in demand.

(5) The Commission shall examine the estimate of sales for reasonableness based on growth in number of consumers and consumption and demand of electricity in previous years and anticipated growth in the next year and any other factor, which the Commission may consider relevant and approve sale of electricity to consumers with such modifications as deemed fit.

(6) The distribution licensee shall also indicate the particulars of open access consumers, traders and other licensees category wise using its system. The demand and energy wheeled for them shall be shown separately for,

(a) supply within the area of supply and

(b) supply outside the area of supply.

(7) Sale of electricity, if any, to electricity traders or other licensees or persons shall be separately indicated. Sale of electricity, if any, outside the licensees area shall be indicated separately in accordance with an agreement executed for this purpose.

(8) The licensee shall assess and estimate sales to unmetered category of consumers, on the basis of the consumption norms sample study or on any other basis determined, or otherwise found reasonable by the Commission.

(9) The licensee shall develop a reliable database of each of the consumer categories such as their demand, energy consumption etc, so as to facilitate accurate forecasting of energy sales for ensuing year.

(10) In case additional electricity is required by any particular consumer category not considered by the commission the licensee shall make an application any time during the year, to the Commission for approval. The application shall indicate the need for such change in consumer mix, the additional supply required and the manner in which the licensee proposes to meet the cost of supply for such change of consumer mix.

**91. Distribution Losses**

(1) The Licensee shall furnish information on Distribution losses for Previous year and Current year and the basis on which such losses have been worked out.

(2) The licensee shall also propose a loss reduction programme for the ensuring year as well as for the next three years duly indicating details of the measures proposed for achieving the same.

(3) Based on the information furnished and field studies carried out and the loss reduction program proposed by the licensee, the Commission shall fix suitable targets for reduction of Distribution losses for the period specified by the Commission.

(4) The licensee shall conduct regular energy audit and submit regular energy audit reports for the previous years to substantiate its estimation of energy losses. Incase, the licensee is unable to submit energy audit report for previous years, it shall indicate reasons therefore.

(5) In the absence of energy audit reports, the Commission may suo-moto determination the loss levels on the basis of information available.

**91 (a) AT&C Losses**

While filing a Tariff Application, the licensee shall provide complete information of the total AT & C Losses during the previous year and that projected for the year for which the application is being made, including the basis on which such losses have been worked out. (Information to be furnished in Format 2 (A) of Distribution Licensee):

Provided that it shall be obligatory on the licensee whose AT&C losses during the previous year are in excess of 30 percent, to project reduction of such losses by a minimum of 3 percent during the year for which a Tariff Application is made. Any shortfall in the projected level of AT&C losses for such year, in this regard, shall be penalized by an amount equivalent to the cost of the quantum of energy to be lost due to inability of the licensee to plan and achieve reduction of AT&C losses by a minimum of 3 percent from the previous year's level. Such amount shall be calculated at the average-over-all-unit-cost of sale of power, as approved by the Commission for such year.

Provided further that failure of a licensee to reduce the AT&C losses during the previous year by 3 percent would be penalized on the same basis as stated against clause (a) above.

Provided also that in the case of a licensee whose AT&C losses during the previous year were less than 30 percent, it would be obligatory for such licensee to reduce such AT&C losses by a minimum of 2 percent only during the year for which a Tariff Application is made. Failure to achieve this level of reduction would be penalized in the same manner as set out in clause(a) and (b) above.

**92. Estimate of Energy Requirement**

(1) Based on the estimated energy sales and the proposed distribution losses the Commission may determine the quantum of electricity required to meet the estimated sales shall and accord approval.

(2) The Commission may and approve the power purchase requirement with such modifications, as it deems fit, for the ensuing year or for the tariff period.

**93. Power Purchase Cost**

(1) The Licensee shall procure power from approved sources. Additional energy required after taking into account the availability of energy from such approved sources, shall be reasonably estimated well in advance and procurement arrangements made for such long and medium term purchases, by following standard contractual procedures. All such purchases shall only be made with the prior approval of the State Commission.

(2) For purchase of electricity from sources outside the state, the transmission loss level agreed to in the Power Purchase Agreement (PPA) or worked out from energy accounts of RLDC ./ SLDC shall be taken into account for purchase of power from such sources.

(3) The cost of power purchased from the central generating companies shall be worked out based on the tariff determination by the Central Electricity Regulatory Commission (CERC).

(4) Where power is purchased by the licensee from State-owned existing generating stations, the cost of power purchase shall be worked out based on the price determined by the State Commission.

(5) The cost of power purchase from IPPs shall be considered based on existing Power Purchase Agreement if any, till the agreement period is over.

(6) In case of power purchased from Renewable energy sources the quantum and the cost shall be as per the policy approved by the State Commission / Central Commission.

(7) In case of short-term power purchase necessitated based on unprecedented development, the licensee may resort to short term procurement.

**94. Variation in Power Purchase**

Power purchased by the licensee in excess of the approved requirement of power, the Commission shall consider the need for such additional power at the time of truing up of the approved tariff.

**95. Transmission and Wheeling Charges**

Transmission, wheeling and other charges payable to the transmission licensee or wheeling of power purchased shall be considered as expense and included in the Power Purchase cost. Transmission & wheeling charges paid for energy sold outside the state shall not be considered as expenses.

**96. RLDC and SLDC Charges**

RLDC and SLDC charges as determined by the appropriate Commission shall be considered as expenses. SLDC charges paid for energy sold outside the state shall not be considered as expenses for determining tariff.

**97. Unscheduled Interchange (UI) Charges**

1. Variation between actual drawal and scheduled drawal shall be accounted for through unscheduled Interchange charges (UI). UI Shall be worked out for each 15 minutes time block. Charges for UI transactions shall be based on average frequency of the time block as specified by CERC from time to time.
2. Unscheduled Interchange purchases and sales are to be furnished month wise in the formats provided in this Regulation.
3. Unscheduled Interchange charges for intra-state transactions will arise after intra-state ABT is notified by the Commission and becomes effective.

**98. Annual Revenue Requirement**

1) The annual expenses of the Distribution Licensee shall comprise of the following,:

(a) Power Purchase Cost
(b) Capital Cost
(c) Debt-equity
(d) Return on equity
(e) Interest on Loan Capital
(f) Operation and Maintenance Expenses
(g) Interest on working capital
(h) Income Tax
(i) Depreciation
(j) Bad and doubtful debts
(k) Depreciation as may be allowed

2) The net annual revenue requirement of a distribution licensee shall be by deducting the following from its total expenses:

(a) Amount of other income (Non tariff income)

(b) Income from surcharge & additional surcharge from open access customers,

(c) Wheeling charges recovered from open access consumers,

(d) Net income from other business apportioned as per License conditions.

(e) Any grant received from the State Government other than the subsidy meant for any consumer or class of consumers.

3) Adjustments if any, due to natural calamities or insurgency or other factors not within the control of Licensee may be approved by the Commission for inclusion in Annual Revenue Requirement of the Licensee.

**99. Capital Cost**

(1) The capital cost includes, the actual capital expenditure till the date of commercial operation of the licensees distribution system or part thereof within the scope of project be subject to prudence check by the Commission.

(2) Scrutiny of the cost estimates by the Commission shall be limited to the reasonableness of the capital cost, financial plan, interest during construction, use of efficient technology, gestation period and such other matters relating to the system prior to the date of commercial operation and as considered by the Commission as approved for determination of tariff.

(3) In case of any abnormal delay in execution of the project causing cost and time overrun attributable to the failure of the utility the Commission may not approve the full capitalization of interest and overhead expenses.

**100. Debt-equity Ratio**

(1) For the purpose of determination of tariff, the debt-equity ratio of 70:30 will be applied for all new investments during the financial year. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance shall be treated as loan. Where actual equity employed is less than 30%, the actual equity shall be considered.

Provided that the Commission may, in appropriate case, consider equity higher than 30% for the purpose of determination of tariff, where the distribution licensee is able to establish to the satisfaction of the Commission that deployment of equity more than 30% is in the interest of general public.

(2) The debt and equity amounts in accordance with clause (1) above shall be used for calculating interest on loan, return on equity, advance against depreciation and foreign rate variation.

**101. Return on Equity**

(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 100, at a fixed rate of 14 percent, per annum.

Provided that equity invested in a foreign currency may be allowed a return upto 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. The difference in actual exchange rate and the provisional exchange rate considered while determining the ARR shall be taken into consideration at the time of 'Truing up'.

(2) The equity amount appearing in the audited Balance Sheet or as per Transfer Scheme Notification will be taken into account for the purpose of calculating the return on equity for the first year of operation, subject to such modifications as may be found necessary upon audit of the accounts if such a Balance Sheet was not audited.

(3) The premium received while issuing share capital shall be treated as a part of equity provided the same is utilized for meeting capital expenditure.

(4) Internal resources created out of free reserves and utilized for meeting the capital expenditure shall also be treated as a part of equity.

**102. Interest and finance charges on loan capital**

(1) Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreements, bond or debenture and the prevailing lending rate of bank and financial institution.

Provided that the outstanding loan capital shall be adjusted to be to be consistent with the loan amount determined in accordance with Regulation 100.

(2) The interest and finance charges attributable to Capital Work in Progress shall be excluded.

(3) The distribution licensee shall make every effort to swap loans as long as it results in net benefit to the distribution licensees. The costs associated with such swapping shall be borne by consumers.

(4) Any change to the terms and conditions of a loan shall be reflected from the date of such swapping and benefit's shared between the beneficiaries and the distribution company in a ratio 50:50.

(5) In case any moratorium period is availed of, 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.

**103. Operation and Maintenance Expenses**

(1) Operation and Maintenance Expenses or O&M Expenses shall mean the total of all expenditure under the following heads:-

(a) Employee Cost

(b) Repairs and Maintenance

(c) Administration and General Expenses.

(2) The distribution Licensee shall submit to the Commission a statement for O&M expenses indicating under each head of account the actuals of last year, estimates for the current year and projections for the next year.

(3) The Commission shall ensure that the O&M expense are in accordance with the norms fixed by the Commission, and any excess or shortage over the norm shall have to be justified by the licensee.

(4) In the absence of any norms for O&M expenses, the Commission shall determine operation and maintenance expenses based on prudent check of the estimates submitted by the licensee.

(5) Increase in O& M expenses due to natural calamities or insurgency or other factors not within the control of the distribution licensee may be considered by the Commission for determination of tariff.

**104. Interest on Working Capital**

(1) Working capital for supply of electricity shall consist of:

(a) Operation and maintenance expenses for one month,

(b) Budget for maintenance spares at the rate of 1% of the historical cost escalated at the rate of 6% per annum from the date of commercial operation.

(c) Receivables equivalent two months on fixed and variable charges for sale of electricity.

(2) Rate of interest on working capital shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1st April of the relevant financial year for which the licensee files petition for Annual Revenue Requirement and tariff proposal. The interest on working capital shall be calculated on normative basis

notwithstanding that the licensee has not taken working capital loan from any outside agency.

**105. Income Tax**

(1) Income Tax on the licensed business of the Distribution Licensee shall be treated as expense and shall be recoverable from consumers through tariff. However, tax on any income other than that of its Licensed business shall not be a pass through, and it shall be payable by the Distribution Licensee.

(2) The income tax actually payable or paid shall be included in the ARR. The actual assessment of income tax should take into account benefits of the tax holiday, and the credit carry forward losses applicable as per the provisions of the Income Tax Act 1961 shall be passed on to the consumers.

(3) Tax on income, if, any liable to be paid shall be limited to tax on return on the equity component of capital employed. However any tax liability on incentives due to improved performance shall not consider.

(4) Any under recovery or over-recovery of tax on income shall be adjusted every year on the basis of income tax assessment under the Income-Tax Act 1961 as certified by the statutory auditors.

**106. Depreciation**

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

(a) The asset value for the purpose of depreciation shall be equal to the cost of the assets as approved by the Commission where:

The opening asset's value recorded in the Balance Sheet as per the Transfer Scheme Notification shall be deemed to have been approved, subject to such modifications as may be found necessary upon audit of the accounts, if such a Balance Sheet is not audited. Consumer contribution or capital subsidy/ grant etc shall be excluded from the asset value for the purpose of depreciation.

(b) For new assets, the approved/accepted cost for the asset value shall include foreign currency funding converted to equivalent rupee at the exchange rate prevalent on the date of foreign currency actually availed but not later than the date of commercial operation.

(c) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed upto a maximum of 90% of the capital cost of the asset.

(d) Depreciation shall be calculated annually as per straight-line method over the useful life of the asset as per the rates specified by the CERC. The Rate of Depreciation shall be the same as the Rate of Depreciation specified by CERC from time to time. Operative rates as on date are shown in Annexure-II of these Regulations.

(e) Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing the cost of the asset.

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

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

**107. Bad and Doubtful Debts**

The Commission may after the distribution licensee gets the receivables audited, allow a provision for bad debts not exceeding an amount equal to 1 percent receivables in the revenue requirement of the licensee. (Information to be furnished in Format D-6).

**108. Wheeling Charges for open access consumers,**

(1) Wheeling charges of a distribution licensee for its distribution system shall be computed by deducting the following amounts from its annual revenue requirement worked out under regulation 98.

- (a) Cost of power purchase
- (b) Interest payable on security deposits of consumers.

(2) Wheeling charges so worked out shall be apportioned supply voltage wise.

(3) The normative distribution system loss at the voltage at which open access transaction is under taken shall be borne by the consumer in kind.

(3) Wheeling charges shall be single part tariff chargeable in Rs. per kWh; however the Commission may approve two-part tariff at a later stage.

The two-part charges may consist of the following or any one or combination there of:

- (a) Fixed charge in Rs. per month per kW of contracted power.
- (b) A charge in Rs. per KWh of energy wheeled separately for:
  - (i) wire business
  - (ii) Installation, operation and maintenance of meters, metering system and any other equipment at consumer's premises.
  - (iii) billing & collection of payment
  - (iv) consumer services
- (c) Connectivity fee

(d) Reactive energy charge / incentive:

Generator and consumers shall be required to maintain power factor (or reactive energy generation/drawal) of generation / load as specified. Power factor surcharge/incentive or reactive energy charge shall be applicable separately on generator and consumer as per licensee's tariff, as approved by the Commission.

**109. Segregation of Wheeling and Retail supply Business**

(1) The Distribution Licensee shall segregate the accounts of the Licensed business into wheeling Business and Retail supply Business. The ARR for Wheeling Business shall be used to determine wheeling charges and the ARR for Retail supply Business to determine Retail Supply Tariff,

(2) For such period until accounts are segregated, the licensee shall prepare an allocation statement to apportion costs and revenues to respective business. The Allocation statement, approved by the Board of Directors of the Licensee, shall be accompanied with an explanation of the methodology, which should be consistent over the Control Period.

**110. Surcharge**

1) The Commission will determine annually the surcharge payable by the open access consumers to meet the current level of cross subsidy level according to proviso 1 section 42 (2) of the Act. Provided that:

   (a) The voltage based cost of supply to the category of consumers for the purpose of tariff to which the open access consumer belongs and the total realization from that category of consumers shall be the basis of calculating the extent of cross subsidy provided by such category of consumers.

   (b) The amount of surcharge shall be so calculated as to meet the current level of cross subsidy from that category of consumers and shall be paid to the distribution licensee of the area of supply where the consumer is located.

   (c) The surcharge shall be reduced in the same manner as the Commission may lay down for reduction and elimination of cross subsidies in its regulations relating to terms and conditions of tariff of distribution licensees.

2) The open access consumers availing exclusively intra-state transmission system shall pay the same amount of surcharge as determined under these regulations.

3) The cross subsidy surcharge is not payable if open access is provided to a person who has established a captive generating plant for carrying the generated electricity to the destination of his own use.

**111. Additional Surcharge**

1) The Commission will determine an additional surcharge that is payable by the open access consumer to meet the fixed cost of such distribution licensee arising out of his obligation to supply according to section 42 (4) of the Act.

2) The distribution licensee whose consumer intends to avail the facility of open access shall submit to the Commission within fifteen days of receipt of application an account of the fixed cost associated with the generation capacity entitlement in MW which the licensee is incurring towards his obligation to supply, the amount of income that may be earned by selling that entitlement to other persons, and the time required to relinquish the generation capacity MW entitlement amount associated with open access consumer.
3) The Commission shall scrutinize the statement of account submitted by the licensee and after giving the open access consumer an opportunity for filing objections, if any, determine the amount of additional surcharge payable by the consumer to the licensee. The additional surcharge shall not be more than the capacity charge [applicable in the bulk supply tariff for generation to the distribution licensee.
4) The additional surcharge shall be imposed for a maximum period as may be specified by the Commission may determine and the amount of the additional surcharge will be adjusted annually by the Commission.
5) At the end of the financial year, the licensee shall be required to demonstrate that the net fixed costs incurred for the MW generation capacity entitlement and the additional surcharges paid by the open access consumer will be adjusted either by a rebate to or an additional payment by the open access consumer to reflect the actual costs incurred. Net fixed costs shall be determined by deducting from the fixed costs any income earned by the licensee with the generation capacity entitlement.

**112. Forecast of Revenues**

1) The revenues of the distribution licensee from the business of the distribution of electricity shall comprise of the following components.
    a) Revenue from sale of power i.e., tariff income
    b) Non-tariff income
    c) Income from surcharge and additional surcharge from open access customer
    d) Wheeling charges recovered from open access consumers.
    e) Any grant received from the State Government, other than the subsidy meant for any consumer or class of consumers.
    f) Net income from other business apportioned as per licensee conditions.
2) The non-tariff income shall comprise of:
    a) Delayed Payment Surcharge
    b) Meter Rent
    c) Customer Charges
    d) Income from investments

e) Miscellaneous receipts from consumers
f) Trading income
g) Prior period income
h) Interest on staff loans and advances
i) Recovery of theft and pilferage of energy
j) Any other income

**113. Revenue Gap**

1) For the tariff year, the difference between the net Annual Revenue Requirement and the expected Revenue at the prevailing tariff shall be the 'Revenue Gap'.
2) The revenue gap shall be bridged by measures such as improvements in internal efficiency, utilization of reserves, tariff changes etc. as may be approved by the Commission.

**114. Tariff Design**

1) Distribution tariff will be two part tariff comprising fixed charge and energy charge.
2) Tariff shall be applicable to consumer categories and as per slabs as will be determined by the commission.
3) The Commission may rationalize the tariff structure so that it is beneficial to consumers and the licensee.
4) A differential tariff for peak and off peak hours may be designed to promote demand side management.

**115. Provision of Subsidy**

If the State Government decides to grant any subsidy to any consumer or class of consumers in the tariff determined by the Commission under Section 62 of the Act, the State Government shall, notwithstanding any direction which may be given under Section 108 of the Act, pay in advance and in such manner as may be specified by the Commission, to the party affected by grant of subsidy, such amount as to fully compensate the loss in revenue due to grant of such subsidy..

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

# Chapter – 7
# MISCELLANEOUS

### 116. Power to remove difficulties

If any difficulty arises in giving effect to any of the provisions of these regulations, the Commission may, by general or special order, do or undertake or direct the licensees to do or undertake things, which in the opinion of the Commission is necessary or expedient for the purpose of removing the difficulties.

### 117. Power to Amend

The Commission may, at any time add, vary, alter, modify or amend any provisions of these regulations.

### 11787. Power of relaxation

The Commission may in public interest and for reason recorded in writing, relax any of the provision of these regulations

### 119. Interpretation

If a question arises relating to the interpretation of the provisions of these regulations, the decision of the Commission shall be final.

### 120. Review of Regulations

The Commission at the end of three years from the date of publishing these regulations or even earlier, if considered just, proper and desirable by it considering the circumstances then prevailing shall undertake a comprehensive review of these regulations with the objective of improvement in the principles, procedures and methodologies.

### 121. Savings

(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 to meet or to prevent abuses of the process of the Commission.

(2) Nothing in these regulations shall bar the Commission from adopting, in conformity with the provisions of the Act, a procedure, which is at variance with any of the provisions of these regulations, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in

writing, deems it necessary or expedient for dealing with such a matter or class of matters.

(3) Nothing in these regulations shall, expressly or impliedly, bar the Commission dealing with any matter or exercising any power under the Act for which no regulations or codes have been framed, and the Commission may deal with such matters, powers and functions in a manner it thinks fit in the public interest.

**122. Repeal.**

(1) The Meghalaya State Electricity Regulatory Commission (Determination of Tariff) Regulation, 2006 are hereby repealed.

(2) Notwithstanding the repeal anything done or action taken or purported to have been done or taken including any order or direction issued under the repealed regulations shall in so far as it is not inconsistent with the provisions of these regulations, be deemed to have been taken or done under the corresponding provisions of these regulations.

**Secretary**
**Meghalaya State Electricity Regulatory Commission**
**Shillong.**

**Annexure-I**

# Timeline for completion of Projects

1. The completion time schedule shall be reckoned from the date of investment approval by the Board (of the generating company or the transmission licensee), or the CCEA clearance as the case may be, up to the date of commercial operation of the units or block or element of transmission project as applicable.
2. The time schedule has been indicated in months in the following paragraphs and tables:

**A Thermal Power Projects**

**<u>Coal/Lignite Power Plant</u>**

<u>Unit size 200/210/250/300/330 MW and 125 MW CFBC technology</u>

(a) 33 months for [first unit of] green field projects. Subsequent units at an interval of 4 months each.

(b) 31 months for [first unit of] extension projects. Subsequent units at an interval of 4 months each.

<u>Unit size 250 MW CFBC technology</u>

(a) 36 months for [first unit of] green field projects. Subsequent units at an interval of 4 months each.

(b) 34 months for [first unit of] extension projects. Subsequent units at an interval of 4 months each.

<u>Unit size 500/600 MW</u>

(a) 44 months for [first unit of] green field projects. Subsequent units at an interval of 6 months each.

(b) 42 months for [first unit of] extension projects. Subsequent units at an interval of 6 months each.

<u>Unit size 660/800 MW</u>

(a) 52 months for [first unit of] green field projects. Subsequent units at an interval of 6 months each.

(b) 50 months for [first unit of] extension projects. Subsequent units at an interval of 6 months each.

**Combined Cycle Power Plant**

Gas Turbine size upto 100 MW (ISO rating)

(a) 26 months for first block of green field projects. Subsequent blocks at an interval of 2 months each.

(b) 24 months for first block of extension projects. Subsequent units at an interval of 2 months each.

**Gas Turbine size above 100 MW (ISO rating)**

(a) 30 months for first block of green field projects. Subsequent blocks at an interval of 4 months each.

(b) 28 months for first block of extension projects. Subsequent units at an interval of 4 months each.

**B. Hydro Electric Projects**

The qualifying time schedule for hydro electric projects shall be as stated in the original concurrence issued by the Central Electricity Authority under section 8 of the Act.

**C. Transmission Schemes**

Qualifying time schedules in months

| S.No | Transmission Work | Plain Area (months) | Hilly Terrain (months) | Snowbound area/@ very difficult Terrain (months) |
|---|---|---|---|---|
| A | 765 kV S/C Transmission line | 30 | 36 | 40 |
| B | +/- 500 kV HVDC Transmission line | 24 | 30 | 34 |
| C | 400 kV D/C Quad Transmission line | 32 | 38 | 42 |
| D | 400 kV D/C Triple Transmission line | 30 | 36 | 40 |
| E | 400 kV D/C Twin Transmission line | 28 | 34 | 38 |
| F | 400 kV S/C Twin Transmission line | 24 | 30 | 34 |
| G | 220 kV D/C Twin Transmission line | 28 | 34 | 38 |
| H | 220 kV D/C Transmission line | 24 | 30 | 34 |
| I | 220 kV S/C Transmission line | 20 | 26 | 30 |
| J | New 220 kV AC Sub-station | 18 | 21 | 24 |
| K | New 400 kV AC sub-station | 24 | 27 | 30 |
| L | New 765 kV AC sub-station | 30 | 34 | $ |
| M | HVDC bi-pole terminal | 36 | 38 | - |
| N | HVDC back-to-back | 26 | 28 | - |
| @ e.g. Leh, Laddakh | | | | |
| $ No 765 kV sub-statio has been planned in difficult terrain | | | | |

**Notes:**

(i) In case a scheme having combination of the above mentioned types of projects, the qualifying time schedule of the activity having maximum time period shall be considered for the scheme as a whole.

(ii) In case a transmission line falls in plain as well as in hilly terrain/snow bound area/very difficult terrain, the composite qualifying time schedule shall be calculated giving proportional weightage to the line length falling in each area.

**Annexure-II**

# Depreciation Schedule

| S.No | Asset Particulars | Depreciation Rate (Salvage Value= 10%) |
|---|---|---|
| | | SLM |
| A | Land under full ownership | 0.00% |
| | | |
| B | Land under lease | |
| (a) | For investment in the land | 3.34 % |
| (b) | For cost of cleaning the site | 3.34 % |
| (c) | Land for reservoir in case of hydro generating station | 3.34 % |
| | | |
| C | Assets purchased new | |
| (a) | Pl & Machinery in generating stations | |
| (i) | Hydro Electric | 5.28 % |
| (ii) | Steam electric NHRB & waste heat recovery boilers | 5.28 % |
| (iii) | Diesel electric and gas plant | 5.28 % |
| | | |
| (b) | Cooling towers & circulating water systems | 5.28 % |
| | | |
| (c) | Hydraulic works forming part of the Hydro- | |
| (i) | Dams, Spillways, Weirs, Canals, Reinforced concrete flumes and siphons | 5.28 % |
| (ii) | Reinforced concreted pipelines and surge tanks, steel pipelines, sluice gates, steel surge tanks, hydraulic control valves and hydraulic works | 5.28 % |
| | | |
| (d) | Building & Civil Engineering works of a | |
| (i) | Offices and showrooms | 3.34 % |
| (ii) | Containing thermo-electric generating plant | 3.34 % |
| (iii) | Containing hydro-electric generating plant | 3.34 % |
| (iv) | Temporary erections such as wooden structures | 100.00 % |
| (v) | Roads other than Kutcha roads | 3.34 % |
| (vi) | Others | 3.34 % |
| | | |
| (e) | Transformers, Kiosk, sub-station equipment & other fixed apparatus (including plant | |
| (i) | Transformer including foundations having rating of 100 kVA and over | 5.28 % |
| (ii) | Others | 5.28 % |
| | | |
| (f) | Switchgear including cable connections | 5.28 % |
| | | |
| (g) | Lightning arrestor | |
| (i) | Station type | 5.28 % |
| (ii) | Pole type | 5.28 % |
| (iii) | Synchronous Condenser | 5.28 % |
| | | |

| | | |
|---|---|---|
| (h) | Batteries | 5.28 % |
| (i) | Underground cable including joint boxes and disconnected boxes | 5.28 % |
| (ii) | Cable duct system | 5.28 % |
| | | |
| (i) | Overhead lines including cable support | |
| (i) | Lines on fabricated steel operating at terminal voltages higher than 66 kV | 5.28 % |
| (ii) | Lines on steel supports operating at terminal voltages higher than 13.2 kV but not exceeding 66 kV | 5.28 % |
| (iii) | Lines on steel on reinforced concrete support | 5.28 % |
| (iv) | Lines on treated wood support | 5.28 % |
| | | |
| (j) | Meters | 5.28 % |
| | | |
| (k) | Self propelled vehicles | 9.50 % |
| | | |
| (l) | Air Conditioning Plants | |
| (i) | Static | 5.28 % |
| (ii) | Portable | 9.50 % |
| | | |
| m(i) | Office furniture and furnishing | 6.33 % |
| (ii) | Office equipment | 6.33 % |
| (iii) | Internal wiring including fittings and apparatus | 6.33 % |
| (iv) | Street Light fittings | 5.28 % |
| | | |
| (n) | Apparatus let on hire | |
| (i) | Other than motors | 9.50 % |
| (ii) | Motors | 6.33 % |
| | | |
| (o) | Communication equipment | |
| (i) | Radio and high frequency carrier system | 6.33 % |
| (ii) | Telephone lines and telephones | 6.33 % |
| | | |
| (p) | I.T equipments | 15.00 % |
| | | |
| (q) | Any other assets not covered above | 5.28 % |

**Annexure – III**

# Procedure for Calculation of Transmission System Availability Factor for a Month

1. Transmission system availability factor for a calendar month (TAFM) shall be calculated by the respective transmission licensee, got verified by the concerned RLDC and certified by the Member-Secretary, Regional Power Committee of the region concerned, separately for each AC and HVDC transmission system and grouped according to sharing of transmission charges.
2. TAFM, in percent, shall be equal to (100 – 100 x NAFM), where NAFM is the non-availability factor in per unit for the month, for the transmission system / sub-system.
3. NAFM for A.C. systems / sub-systems shall be calculated as follows :

$$NAFM = \left[ \sum_{l=1}^{L} ( OH_l \times Ckt\,km_l \times NSC_l ) + \sum_{t=1}^{T} ( OH_t \times MVA_t \times 2.5 ) + \sum_{r=1}^{R} ( OH_r \times MVAR_r \times 4 ) \right] \div THM \times \left[ \sum_{l=1}^{L} (Ckt\,km_l \times NSC_l) + \sum_{t=1}^{T} (MVA_t \times 2.5 ) + \sum_{r=1}^{R} (MVAR_r \times 4 ) \right]$$

Where

l identifies a transmission line circuit

t identifies a transformer / ICT

r identifies a bus reactor, switchable line reactor or SVC

L = total number of line circuits

T = total number of transformers and ICTs

R = total number of bus reactors, switchable line reactors and SVCs

OH = Outage hours or hours of non-availability in the month, excluding the duration of outages not attributable to the transmission licensee, if any, as per clause (5).

Cktkm = Length of a transmission line circuit in km

NSC = Number of sub-conductors per phase

MVA = MVA rating of a transformer / ICT

MVAR = MVAR rating of a bus reactor, switchable line reactor or an SVC (in which case it would be the sum of inductive and capacitive capabilities).

THM = Total hours in the month.

4. NAFM for each HVDC system shall be calculated separately, as follows :

NAFM = [ Σ (TCR x hours) ] ÷ [ THM x RC ]

Where

TCR = Transmission capability reduction of the system in MW

RC = Rated capacity of the system in MW.

For the above purpose, the HVDC terminals and directly associated EHV / HVDC lines of an HVDC system shall be taken as one integrated system.

5. The transmission elements under outage due to following reasons shall be deemed to be available:

i) Shut down availed for maintenance or construction of elements of another transmission scheme. If the other transmission scheme belongs to the transmission licensee, the Member-Secretary, RPC may restrict the deemed availability period to that considered reasonable by him for the work involved.

ii) Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the directions of RLDC.

6. Outage time of transmission elements for the following contingencies shall be excluded from the total time of the element under period of consideration.

i) Outage of elements due to acts of God and force majeure events beyond the control of the transmission licensee. However, onus of satisfying the Member Secretary, RPC that element outage was due to aforesaid events and not due to design failure shall rest with the transmission licensee. A reasonable restoration time for the element shall be considered by Member Secretary, RPC and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Member Secretary, RPC may consult the transmission licensee or any expert for estimation of reasonable restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available.

ii) Outage caused by grid incident/disturbance not attributable to the transmission licensee, e.g. faults in substation or bays owned by other agency causing outage of the transmission licensee's elements, and tripping of lines, ICTs, HVDC, etc. due to grid disturbance. However, if the element is not restored on receipt of direction from RLDC while normalizing the system following grid incident/disturbance within reasonable time, the element will be considered not available for the period of outage after issuance of RLDC's direction for restoration.

# Appendix-A

## Formats to be filled by Generating Company

## (A) Thermal Generation

**for the year ____________**

## TARIFF NORMS FOR ENERGY / VARIABLE CHARGES

| | |
|---|---|
| Name of the Applicant | |
| Name of the Generating Station | |
| Special features of the plant | |
| a) Basic Characteristics[1] & Site Specific Features[2] | |
| b) Enveronmental Regulation related Features[3] | |
| c) Any other special features | |
| d) Date of Commercial Operation (COD) | |
| e) Type of Cooling System[5] | |

| Fuel Details [4] | Primary Fuel | Secondary Fuel | Alternate Fuel |
|---|---|---|---|
| Mention type of fuel | | | |

| S. No | Particulars | Unit | Ref | Derivation | Previous Year (Actual) | Current year (Estimated) | Ensuing year (Projected) |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | Installed Capacity | MW | | | | | |
| 2 | PLF | % | | | | | |
| 3 | Generation | MU | A | A | | | |
| 4 | Auxillary Consumption | % MU | B | B | | | |
| 5 | Generation (Ex-bus) | MU | C | (A-B) | | | |
| 6 | Station Heat Rate | Kcal / Kwh | D | Derivation | | | |
| 7 | Specific Oil Consumption | ML / KWH | E | E | | | |
| 8 | Calorific Value of Fuel Oil | Kcal / Litre | F | F | | | |
| 9 | Claorific Value of Coal | Kcal / Kg | G | G | | | |
| 10 | Overall Heat rate | Gcal | H | (AXD) | | | |
| 11 | Heat from oil | Gcal | I | (AXEXF) | | | |
| 12 | Heat from coal | Gcal | J | (H-I) | | | |
| 13 | Actual oil consumption | KL | K | (IX1000 / F) OR (AXE) | | | |
| 14 | Actual Coal consumption | MT | L | (JX1000 / G) / 0.992 | | | |
| 15 | Cost of Oil per KL | Rs. / KL | M | M | | | |
| 16 | Cost of Coal per MT (incl. LADT) | Rs. / MT | N | N | | | |
| 17 | Total Cost of Oil | Rs. Million | O | (MXK / 10) ^6 | | | |
| 18 | Total Cost of Coal | Rs. Million | P | (NXL / 10 ^6) | | | |
| 19 | Total Fuel Cost | Rs. Million | Q | (O+P) | | | |
| 20 | Fuel Cost / KWH | Rs. / KWH | R | (Q/C) | | | |

1 Describe the basic characteristics of the plant e.g. in the case of a coal based plant whether it is conventional steam generator or circulating fluidized bed combustion generator or sub-critical once through steam generator etc.

2 Any site specific feature such as Merry-Go-Round, Vicinity to sea, Intake/makeup water systems etc. scrubbers etc. Specify all such features.

3 Environmental regulation related features like FGD, ESP etc.

4 Coal or natural gas or naphtha or lignite etc.

5 Closed circuit cooling, once through cooling, sea cooling etc.

**Note: Separate statements to be furnished for each stations**

**Format - TG2**

**Name of the Generating Company: ______________________**

**STATEMENT SHOWING THE CALCULATION OF TOTAL COST OF COAL (PRIMARY FUEL) FOR THERMAL GENERATING STATIONS**

| S.No | Name of the Station | Capacity | PLF | Generation in MU | Heat Rate K.Cal / kwh | (GCV) K.Cal / Kg. | Specific consumption of Coal (Kg / kwh) | Qty. of coal in lakh Tonns | Basic Cost Rs. / MT | Railway Frieght Rs. / MT | Ocean Freight Rs. / MT | Handling Charges Rs. / MT | Total Rs. / MT | Total Cost Rs. in Lakhs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
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**Note:**

**Separate statement to be furnished for Previous year (Actuals), Current year (Estimated) and Ensuing year (Projected)**

**Format - TG3**

**Name of the Generating Company: ______________________**

**CALCULATION OF COST OF SECONDARY FUEL (OIL) FOR THERMAL STATIONS**

| S.No | Name of the Station | Generation in MU | HFO | | | | HSD / LDO | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Specific oil consumption (ml / kwh) | Qty (KL) | Rate (Rs. / KL) | Cost Rs. / Lakhs | Specific consumption (ml / kwh) | Qty (KL) | Rate (Rs. / KL) | Cost Rs. / Lakhs | Total Cost Rs. in Lakhs (7+11) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | | | | | | | | | | | |
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**Note:**
**Separate statement to be furnished for Previous year (Actuals), Current year (Estimated) and Ensuing year (Projected)**

**Format-TG4**

**Name of the Generating Company: ________________________________**

**Calculation of Total Cost of Gas in Gas based Thermal Generating Station**

| Sl.No | Name of the Station | Capacity (MW) | PLF (%) | Generation (MU) | Heat Rate (Kcal/kWH) | Gross Calorific Value (Kcal /SCM) | Specific gas consumption (SCM / kWH) | Quantity of Gas (MMSCM) | Rate (Rs / 1000 SCM) | Cost of Gas (Rs in Lakhs) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
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**Format - TG5**

**Name of the Generating Company: ___________________________**

**TOTAL FUEL COST OF ALL GENERATING STATIONS**

**Rs. Lakhs**

| S.No | Name of the Station | Coal | Gas | Oil | Lubricants | Others | Total costs |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |

**Note:**

**Separate statement to be furnished for Previous year (Actuals), Current year (Estimated) and Ensuing year (Projected)**

Format - TG6

**Name of Generating Company :____________________**

**ANNUAL REVENUE REQUIREMENT**

| S.No | Particulars | Previous year (Actuals) | Current Year (Estimated) | Ensuing Year (Projected) |
|---|---|---|---|---|
| 1 | Gross Generation (MU) | | | |
| 2 | Auxilary Consumption (MU) | | | |
| 3 | Net Generation (MU) | | | |
| 4 | Fuel Costs (Total) | | | |
| 5 | Fixed Charges | | | |
| | a) Interest on Loan capital | | | |
| | b) Depreciation | | | |
| | c) Advance against depreciation | | | |
| | d) O&M Expenses | | | |
| | e) Interest on working capital | | | |
| | f) Foreign exchange Rate | | | |
| | g) Return on Equity | | | |
| | h) Taxes | | | |
| | Total fixed charges | | | |
| 6 | Less other income | | | |
| 7 | Total Expenses (4+5) | | | |

## Formats to be filled by Generating Company

## (B) Hydel Generation

**For the year ______________________**

**Format - HG1**

**Name of the Hydro Generating Station: ____________________**

**DETAILS OF COD, TYPE OF HYDRO STATIONS, NORMATIVE ANNUAL PLANT, AVAILABILITY FACTOR (NAPAF) & OTHER NORMATIVE PARAMETERS CONSIDERED FOR TARIFF CALCULATION**

| Sl. No. | Description | Unit | Previous year (Actuals) | Current year (Estimated) | Ensuing Year (Projected) |
|---|---|---|---|---|---|
| 1 | Installed Capacity | MW | | | |
| 2 | Free power to home state | % | | | |
| 3 | Date of commercial operation | | | | |
| | Unit-1 | | | | |
| | Unit-2 | | | | |
| | Unit-3 | | | | |
| 4 | Type of Station | | | | |
| | a) Surface/underground | | | | |
| | b) Purely ROR/ Pondage/Storage | | | | |
| | c) Peaking/non-peaking | | | | |
| | d) No. of hours of peaking | | | | |
| | e) Overload capacity(MW) & period | | | | |
| 5 | Type of excitation | | | | |
| | a) Rotaing exciters on generator | | | | |
| | b) Static excitation | | | | |
| 6 | Design Energy (Annual)[1] | Gwh | | | |
| 7 | Auxiliary Consumption including Transformation losses | % | | | |
| 8 | Normative Plant Availability Factor (NAPAF) | % | | | |
| 9.1 | Maintenance Spares for WC | Rs. Lakh | | | |
| 9.2 | Receivable for WC | Rs. Lakh | | | |
| 9.3 | Base Rate of retuen on equity | % | | | |
| 9.4 | Tax Rate [2] | % | | | |
| 9.5 | Prime lending Rate of SBI as on _____ | | | | |

[1] Monthwise Design energy figures to be given separately with the petition.

2. Tax rate applicable to the company for the year FY 2008-09 should also be furnished.

3.Mention relevant date

**Format- HG2**

**Name of the Hydro Generating Station: ___________________________________**

**SALIENT FEATURES OF HYDROELECTRIC PROJECT**

| | |
|---|---|
| **1. Location** | |
| State/Distt. | |
| River | |
| **2. Diversion Tunnel** | |
| Size, shape | |
| Length | |
| **3. Dam** | |
| Type | |
| Maximum dam height | |
| **4. Spillway** | |
| Type | |
| Crest level of spillway | |
| **5. Reservoir** | |
| Full Reservior Level (FRL) | |
| Minimum Draw Down Level (MDDL) | |
| Live storage (MCM) | |
| **6. Desilting Arrangement** | |
| Type | |
| Number and Size | |
| Particle size to be removed(mm) | |
| **7. Head Race Tunnel** | |
| Size and type | |
| Length | |
| Design discharge(Cumecs) | |
| **8. Surge Shaft** | |
| Type | |
| Diameter | |
| Height | |
| **9. Penstock/Pressure shafts** | |
| Type | |
| Diameter & Length | |
| **10. Power House** | |
| Type | |
| Installed capacity (No of units x MW) | |
| Peaking capacity during lean period (MW) | |
| Type of turbine | |
| Rated Head(M) | |
| Rated Discharge(Cumecs) | |
| **11. Tail Race Tunnel** | |
| Diameter, shape | |
| Length | |
| Minimum tail water level | |
| **12. Switchyard** | |
| Type of Switch gear | |
| No. of generator bays | |
| No. of Bus coupler bays | |
| No. of line bays | |

Note: Specify limitations on generation, if any, during specific time period on
water use due to irrigation, drinking water, industrial, environmental considerations etc.

**Format - HG3**

Name of the Hydro Generating Station: ______________________

**DESIGN ENERGY AND MW CONTINUOUS (monthwise)- RUN OF RIVER TYPE STATIONS**

Installed Capacity: No. of Units X. MW =

Year ______________________

| **S.No** | **Month** | **Design Energy (MUs)** | **MW Continuous*** |
|---|---|---|---|
| 1 | April | I | |
| | | II | |
| | | III | |
| 2 | May | I | |
| | | II | |
| | | III | |
| 3 | June | I | |
| | | II | |
| | | III | |
| 4 | July | I | |
| | | II | |
| | | III | |
| 5 | August | I | |
| | | II | |
| | | III | |
| 6 | September | I | |
| | | II | |
| | | III | |
| 7 | October | I | |
| | | II | |
| | | III | |
| 8 | November | I | |
| | | II | |
| | | III | |
| 9 | December | I | |
| | | II | |
| | | III | |
| 10 | January | I | |
| | | II | |
| | | III | |
| 11 | February | I | |
| | | II | |
| | | III | |
| 12 | March | I | |
| | | II | |
| | | III | |
| | Total | | |

**Note:**
**Separate statement to be furnished for Previous year (Actuals), Current year (Estimated) and Ensuing year (Projected)**

**Format - HG4**

Name of the Hydro Generating Station: ______________________

**DESIGN ENERGY AND PEAKING CAPABILITY (monthwise) - PONDAGE / STORAGE TYPE STATIONS**

Installed Capacity: No. of Units X. MW =

| S.No | Month | Design Energy (MUs) | MW Continuous* |
|---|---|---|---|
| 1 | April | I | |
| | | II | |
| | | III | |
| 2 | May | I | |
| | | II | |
| | | III | |
| 3 | June | I | |
| | | II | |
| | | III | |
| 4 | July | I | |
| | | II | |
| | | III | |
| 5 | August | I | |
| | | II | |
| | | III | |
| 6 | September | I | |
| | | II | |
| | | III | |
| 7 | October | I | |
| | | II | |
| | | III | |
| 8 | November | I | |
| | | II | |
| | | III | |
| 9 | December | I | |
| | | II | |
| | | III | |
| 10 | January | I | |
| | | II | |
| | | III | |
| 11 | February | I | |
| | | II | |
| | | III | |
| 12 | March | I | |
| | | II | |
| | | III | |
| | Total | | |

**Note:**
**Specify the number of peaking hours for which station has been designed.**
**Separate statement to be furnished for Previous year (Actuals), Current year (Estimated) and Ensuing year (Projected)**

**Format - HG5**

**Name of Generating Company :____________________**

**ANNUAL REVENUE REQUIREMENT**

| S.No | Particulars | Previous year (Actuals) | Current Year (Estimated) | Ensuing Year (Projected) |
|---|---|---|---|---|
| 1 | Gross Generation (MU) | | | |
| 2 | Auxilary Consumption (MU) | | | |
| 3 | Net Generation (MU) | | | |
| 4 | Free Energy to home state (MU) | | | |
| 5 | Royalty (Rs.) | | | |
| 6 | Water Charges (Rs.) | | | |
| 7 | Capacity Charges (Rs.) | | | |
| | a) Interest on Loan capital (Rs.) | | | |
| | b) Depreciation (Rs.) | | | |
| | c) Advance against depreciation (Rs.) | | | |
| | d) O&M Expenses (Rs.) | | | |
| | e) Interest on working capital (Rs.) | | | |
| | f) Foreign exchange Rate (%) | | | |
| | g) Return on Equity (%) | | | |
| | h) Income Taxes (Rs.) | | | |
| | **Total fixed expenses (5+6+7)** | | | |

# Appendix- B

## Formats to be filled by

## TRANSMISSION LICENSEE

**For the year ______________________**

**Format- T1 (A)**

**Name of the Transmission Licensee: ____________________________**

**DETAILS OF TRANSMISSION LINES**

**(A) Transmission Lines**

| S.NO | | S/C or D/C | Voltage level kV | Line Length Ckt.-kM | Date of Commerical Operation |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

**Format- T1 (B)**

**Name of the Transmission Licensee: ____________________________**

**DETAILS OF SUB-STATIONS**

**(B) Sub-Stations**

| S.NO | Name of Sub-Station | Type of Sub-station Conventional / GIS | Voltage Ratio | No. of Transformers (with capacity) | Date of Commerical Operation |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

**Format- T2 (A)**

**Name of the Transmission Licensee: ________________________**

**TRANSMISSION LINES (WORK IN PROGRESS)**

| S.NO | Name of Line | Voltage level kV | Ckt.-kM | Approved Cost (Rs. in crores) | Financing Pattern (Grant: loan) | Year of Commence ment | Schedule Date of Commissi oning |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |

**Format- T2 (B)**

**Name of the Transmission Licensee: ________________________**

**SUB-STATION (WORK IN PROGRESS)**

| S.NO | Name of Sub-station | Capacity MVA | No. of Units | Total MVA | Approved Cost (Rs. in Crores) | Financing Pattern | Year of Commenc ement | Schedule Date of Commissi oning |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |

**Format- T3**

**Name of the Transmission Licensee: ______________________________**

**NORMATIVE PARAMETERS TO BE CONSIDERED FOR TARIFF CALCULATIONS**

| S.No | Particulars | Unit | Previous Year (actuals) | Current Year (Estimated) | Ensuing Year (Projected) |
|---|---|---|---|---|---|
| 1 | Target Availability | % | | | |
| 2 | Normative Operation and Maintenance per Ckt. Km | Rs. lakhs | | | |
| 3 | Normative Operation and Maintenance per bay | Rs. lakhs | | | |
| 4 | Spares for working capital as % of O&M | % | | | |
| 5 | Recievables in Months for working capital | months | | | |
| 6 | Rate of Return on Equity (%) | % | | | |

**Format - T4 (A)**

**Name of the Transmission Licensee: ____________________**

**ENERGY BALANCE**

**(A) Energy Received**

| S.No | Name of the Generating Station | Units Received (MU) |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | **Total Energy Received** | |

**Format - T4 (B)**

**Name of the Transmission Licensee: ____________________**

**(B) Energy Sent Out**

| S.No | Name of the licensee | Units Sent Out (MU) |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | Auxilary Consumption | |
| | Gross Energy Sent Out | |

**Format - T4 (C)**

**Name of the Transmission Licensee: ____________________**

**(C) Transmission Losses**

| S.No | Name of the licensee | Units Sent Out (MU) |
|---|---|---|
| 1 | Total Energy Received | |
| 2 | Gross energy sent out | |
| 3 | Transmission loss (1-2) | |
| 4 | % Transmission losses ((3/1)x100) | |

**Format - T5 (A)**

**Name of the Transmission Licensee: ________________________**

## TRANSMISSION LOSSES

**(A) Historical Data of Transmission Losses**

| S.No | Year | $T_{1-4}$ | $T_{1-3}$ | $T_{1-2}$ | $T_{1-1}$ | $T_1$ |
|---|---|---|---|---|---|---|
| 1 | % Transmission Losses | | | | | |

**Note: $T_1$ is previous year, T1-1 is pre-previous year and so on………..**

**Format - T5 (B)**

**Name of the Transmission Licensee: ________________________**

**(B) Proposed Transmission Loss Trajectory**

| S.No | Year | Current Year (T) | $T_{+1}$ | $T_{+2}$ | $T_{+3}$ | $T_{+4}$ |
|---|---|---|---|---|---|---|
| 1 | % Transmission Loss Trajectory | | | | | |

T+1 = Ensuing year and so on …………

Format - T6

**Name of the Transmission Licensee: ________________________**

## OTHER INCOME DETAILS

**Rs. Lakhs**

| S.No | Particulars | Previous year (Actuals) | Current Year (Estimated) | Ensuing Year (Projected) |
|---|---|---|---|---|
| 1 | Interest on Staff Loans and Advances | | | |
| 2 | Income from investments deposits | | | |
| 3 | Interest on Advances to Others | | | |
| 4 | Interest from Banks (other than on Fixed Deposits) | | | |
| 5 | Income from Trading-Stores, Scrap etc. | | | |
| 6 | Income from staff welfare Activities | | | |
| 7 | Gain on sale of Fixed Assets | | | |
| 8 | Miscellaneous Receipts | | | |
| 9 | Contribution & Grants towards cost of capital Assets | | | |
| 10 | **Total** | | | |

Format - T7

**Name of the Transmission Licensee: ________________________**

**ANNUAL TRANSMISSION CHARGES**

**(Rs. in Lakhs)**

| S.No | Particulars | Previous year (Actuals) | Current Year (Estimated) | Ensuing Year (Projected) |
|---|---|---|---|---|
| 1 | Employees Cost | | | |
| 2 | Repairs & Maintenance | | | |
| 3 | Admin & General Expenses | | | |
| 4 | Depreciation | | | |
| 5 | Advance Against Depreciation | | | |
| 6 | Interest and Finance Charges | | | |
| 7 | Interest on Working Capital | | | |
| 8 | Return on Equity | | | |
| 9 | Income Tax | | | |
| 10 | Others (including ULDC charges) | | | |
| **11** | **Total Fixed Costs** | | | |
| 12 | Less: Expenses Capitalised | | | |
| 13 | Total Transmission Charges | | | |
| 14 | Less: Other Income | | | |
| **15** | **Net Annual Transmission Charges** | | | |

Format - T8

**Name of the Transmission Licensee: ________________________**

**PROPOSED TRANSMISSION TARIFF**

**Rs. in lakhs**

| S.No | Particulars | Previous year (Actuals) | Current Year (Estimated) | Ensuing Year (Projected) |
|---|---|---|---|---|
| 1 | Annual Transmission Charges (Rs. Lakhs) | | | |
| 2 | Total MW Allocation (MW) | | | |
| 3 | Transmission Tariff (Rs / MW / Day) | | | |
| 4 | Energy Transferred (MU) | | | |
| 5 | Transmission Tariff (Paise / Unit) | | | |

# Appendix-C

## Formats to be filled by

## DISTRIBUTION LICENSEE

**For the year ______________________**

Format- D1

**Name of the Distribution Licensee: _______________**

## CONSUMER CATEGORY-WISE ENERGY SALES

| S.N | Category of Consumers | Previous Year (Actuals) | | Current Year (Estimated) | | Ensuing Year (Projected) | |
|---|---|---|---|---|---|---|---|
| | | No. of Consumers at the end of the year (Nos.) | Energy Sale / Demand (MU) | No. of Consumers at the end of the year (Nos.) | Energy Sale / Demand (MU) | No. of Consumers at the end of the year (Nos.) | Energy Sale / Demand (MU) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | **LT CATEGORY** | | | | | | |
| 1 | Domestic (DLT) | | | | | | |
| 2 | Commercial (CLT) | | | | | | |
| 3 | Industrial (ILT) | | | | | | |
| 4 | Agriculture (Ap) | | | | | | |
| 5 | Public Lighting (PL) | | | | | | |
| 6 | Water Supply (WSLT) | | | | | | |
| 7 | General Purpose | | | | | | |
| 8 | Kutir Jyoti | | | | | | |
| | | | | | | | |
| | **HT CATEGORY** | | | | | | |
| 9 | Water Supply (WS HT) | | | | | | |
| 10 | Industrial (IHT) | | | | | | |
| 11 | General Purpose including Domestic (DHT) | | | | | | |
| 12 | Bulk Supply (HT) | | | | | | |
| 13 | Commercial (CHT) | | | | | | |
| | | | | | | | |
| | **EHT CATEGORY** | | | | | | |
| 14 | Industrial | | | | | | |

**Note: Consumer category classification may be suitably modified, if those in existence are different from the ones listed in the above format.**

**Format- D2**

**Name of the Distribution Licensee: _______________**

## ENERGY BALANCE

**(MU)**

| S.N. | Item | Previous year (Actuals) | Current Year (Estimted) | Ensuing year (Projected) |
|---|---|---|---|---|
| **A)** | **ENERGY REQUIREMENT** | | | |
| 1 | Energy sales within the State | | | |
| 2 | Sales to common pool consumers | | | |
| 3 | Sales outside State | | | |
| 4 | Sales to electricity traders | | | |
| 5 | Sales to other distribution licensees | | | |
| **6** | **Total Sales** | | | |
| 7 | Distribution Losses | | | |
| (i) | MU | | | |
| (ii) | % | | | |
| 8 | Total energy requirement (6+7(i)) | | | |
| **B** | **ENERGY AVALABILITY** | | | |
| 1 | Net thermal generation (own) | | | |
| 2 | Net hydel generation (own) | | | |
| 3 | Power Purchase from | | | |
| | a) Central Stations | | | |
| | b) Traders | | | |
| | c) Power Exchange | | | |
| | d) Others | | | |
| 4 | Net Power Purchase (1+2+3) | | | |
| 5 | Total energy availability | | | |

**Format- D2 (A)**

**Information regarding Distribution Loss and AT & C Loss of Licensee**

| S.No | Particulars | Claculation | Unit | Previous Years (Actuals) | | Current Year (R.E) | Ensuing Year (Projection) |
|---|---|---|---|---|---|---|---|
| 1 | Generation (own as well as any other connected generation net after deducting auxiliary consumption) within area of supply of DISCOM | A | MU | | | | |
| 2 | Input energy (metered Import) received at interface points of DISCOM network | B | MU | | | | |
| 3 | Input energy (metered Export) by the DISCOM at interface point of DISCOM network | C | MU | | | | |
| 4 | Total energy available for sale within the licensed area to the consumers of the DISCOM | D=A+B-C | MU | | | | |
| 5 | Energy billed to metered consumers within the licensed area of the DISCOM | E | MU | | | | |
| 6 | Energy billed to unmetered consumers within the licensed area of the DISCOM | F | MU | | | | |
| 7 | Total energy billed | G=E+F | MU | | | | |
| 8 | Amount billed to consumer within the licensed area of DISCOM | H | Rs. | | | | |
| 9 | amount realized by the DISCOM out of the amount Billed at H# | I | Rs.Lakhs | | | | |
| 10 | Collection efficiency (%) (=Revenue realized / Amount billed) | J=(I/H)X100 | % | | | | |
| 11 | Energy realised by the DISCOM | K=JXG | MU | | | | |
| 12 | Distribuition Loss (%) | L={(D-G)/D}x100 | % | | | | |
| 13 | AT&C Loss (%) | M={(D-K)/D}x100 | % | | | | |

# Amount received in the current year for the amount billed in the previous years should not be excluded in this head. However, subsidy received against the current years sale of electricity should be considered in this head.
@ norms for determining the energy billed to un-metered consumers may be specified. This should be only for two categories i.e., agricultural consumers and the househo;lds below poverty line. The norms could be on the basis of sample metering incase of the agricultural consumers which could be further refined on the basis of the results of the consultancy study on cost of supply to agricultural consumers

Note: Audited figures must be taken from the commercial Department of the Utility (Billing and Revenue Section) for computing the AT&C Losses.

**Format- D3**

**Name of the Distribution Licensee: _______________**

**ENTITLEMENT FROM CENTRAL GENERATING STATIONS AND ENERGY PURCHASED**

**FOR THE YEAR _______________**

**(MU)**

| S.N. | Station | Capacity (MW) | Firm allocation to | | Gen. (MU) | PLF % | Aux. Cons. | | Energy sent out | Firm Energy entitlement | Actual Utilised |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1 | NTPC | | | | | | | | | | |
| | a) | | | | | | | | | | |
| | b) | | | | | | | | | | |
| | c) | | | | | | | | | | |
| | d) | | | | | | | | | | |
| | e) | | | | | | | | | | |
| 2 | NHPC | | | | | | | | | | |
| | a) | | | | | | | | | | |
| | b) | | | | | | | | | | |
| | c) | | | | | | | | | | |
| | d) | | | | | | | | | | |
| | e) | | | | | | | | | | |
| 3 | NECPCO | | | | | | | | | | |
| | a) | | | | | | | | | | |
| | b) | | | | | | | | | | |
| | c) | | | | | | | | | | |
| | d) | | | | | | | | | | |
| | e) | | | | | | | | | | |
| 4 | PTC | | | | | | | | | | |
| | a) | | | | | | | | | | |
| | b) | | | | | | | | | | |
| | c) | | | | | | | | | | |
| | d) | | | | | | | | | | |
| | e) | | | | | | | | | | |
| 5 | Other sources | | | | | | | | | | |
| | a) | | | | | | | | | | |
| | b) | | | | | | | | | | |
| | c) | | | | | | | | | | |
| | d) | | | | | | | | | | |
| | e) | | | | | | | | | | |

**Note:**

**Separate statement to be furnished for Previous year (Actuals), Current year (Estimated) and Ensuing year (Projected)**

**Format- D4**

**Name of the Distribution Licensee: _______________**

**POWER PURCHASE COST**

**FOR THE YEAR_____________**

**(Rs. in Crores)**

| S.N | Source | Energy received (MU) | Variable Cost (Ps. / Unit) | Total Variable Cost | Total Fixed Cost | Others | Total Cost (5+6+7) | Unit Cost (Rs. / KWH) |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | **NTPC** | | | | | | | |
| | a) | | | | | | | |
| | b) | | | | | | | |
| | c) | | | | | | | |
| | d) | | | | | | | |
| | e) | | | | | | | |
| 2 | **NHPC** | | | | | | | |
| | a) | | | | | | | |
| | b) | | | | | | | |
| | c) | | | | | | | |
| | d) | | | | | | | |
| | e) | | | | | | | |
| 3 | **NEEPCO** | | | | | | | |
| | a) | | | | | | | |
| | b) | | | | | | | |
| | c) | | | | | | | |
| | d) | | | | | | | |
| | e) | | | | | | | |
| 4 | **Other sources** | (Details to be furnished) | | | | | | |
| | a) | | | | | | | |
| | b) | | | | | | | |
| | c) | | | | | | | |
| | d) | | | | | | | |
| | e) | | | | | | | |
| 5 | **Other Charges** | (Details to be furnished) | | | | | | |
| | a) | | | | | | | |
| | b) | | | | | | | |
| | c) | | | | | | | |
| | d) | | | | | | | |
| | e) | | | | | | | |

**Note:**
**Separate statement to be furnished for Previous year (Actuals), Current year (Estimated) and Ensuing year (Projected)**

Format - D4 (a)

Name of the Licensee:

## UI POWER PURCHSE CHARGES
## For the PREVIOUS YEAR

| S.N | Month | Quantum of Energy Received (MU) | Per unit cost (Rs / kWH) | Cost of Energy Purchase (Rs.Crores) |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1 | April | | | |
| 2 | May | | | |
| 3 | June | | | |
| 4 | July | | | |
| 5 | August | | | |
| 6 | September | | | |
| 7 | October | | | |
| 8 | November | | | |
| 9 | December | | | |
| 10 | January | | | |
| 11 | February | | | |
| 12 | March | | | |
| 13 | Total | | | |

Format - D4 (b)

Name of the Licensee:

## UI POWER PURCHSE CHARGES
## For the ENSUING YEAR

| S.N | Month | Quantum of Energy Proposed to be purchased (MU) | Per unit cost (Rs / kWH) | Cost of Energy Purchase (Rs.Crores) |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1 | April | | | |
| 2 | May | | | |
| 3 | June | | | |
| 4 | July | | | |
| 5 | August | | | |
| 6 | September | | | |
| 7 | October | | | |
| 8 | November | | | |
| 9 | December | | | |
| 10 | January | | | |
| 11 | February | | | |
| 12 | March | | | |
| 13 | Total | | | |

Format - D4 (c)

**Name of the Licensee:**

**UI POWER SALE CHARGES**
**For the PREVIOUS YEAR**

| S.N | Month | Quantum of Energy Sold (MU) | Per unit cost (Rs / kWH) | Cost of Energy Sold (Rs.Crores) |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| 1 | April | | | |
| 2 | May | | | |
| 3 | June | | | |
| 4 | July | | | |
| 5 | August | | | |
| 6 | September | | | |
| 7 | October | | | |
| 8 | November | | | |
| 9 | December | | | |
| 10 | January | | | |
| 11 | February | | | |
| 12 | March | | | |
| 13 | Total | | | |

Format - D4 (d)

**Name of the Licensee:**

**UI POWER SALE CHARGES**
**For the ENSUING YEAR**

| S.N | Month | Quantum of Energy Sold (MU) | Per unit cost (Rs / kWH) | Cost of Energy Sold (Rs.Crores) |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| 1 | April | | | |
| 2 | May | | | |
| 3 | June | | | |
| 4 | July | | | |
| 5 | August | | | |
| 6 | September | | | |
| 7 | October | | | |
| 8 | November | | | |
| 9 | December | | | |
| 10 | January | | | |
| 11 | February | | | |
| 12 | March | | | |
| 13 | Total | | | |

**Format- D5**

**Name of the Distribution Licensee: _______________**

**NON TARIFF INCOME**

**(Rs. in crores)**

| S.N. | Source of loan | Previous year (Actuals) | Current year (Estimated) | Ensuing year (Projected) |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1 | Meter / Service rent | | | |
| 2 | Late payment surcharge | | | |
| 3 | Theft / pilferage of energy charges | | | |
| 4 | Misc. receipts | | | |
| 5 | Misc. charges | | | |
| 6 | Wheeling charges | | | |
| 7 | Interest on staff loans & advance | | | |
| 8 | Income from trading | | | |
| 9 | Income from welfare activities | | | |
| 10 | Excess on verification | | | |
| 11 | Investments & bank balances | | | |
| 12 | Total Income | | | |
| 13 | Add Prior period income * | | | |
| 14 | Total | | | |

* Year wise details of prior period income may be provided

**Format- D6**

**Name of the Distribution Licensee: __________________**

**BAD AND DOUBTFUL DEBTS**

For the year ________________________

**(Rs. in Crores)**

| **S.N** | **Particulars** | **Amount** |
|---|---|---|
| **1** | **2** | **3** |
| 1 | Amount of receivable bad and doubtfule debts (audited) | |
| 2 | Provision made for debts in ARR | |

Format- D7

**Name of the Distribution Licensee: ___________________**

**ANNUAL REVENUE REQUIREMENT**

**(Rs. in Crores)**

| S.N | Item of expenditure | Previous Year (Actuals) | Current year (Estimated) | Ensuing Year (Projected) |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1 | Cost of Power Purchase | | | |
| 2 | Employee costs | | | |
| 3 | O&M expenses | | | |
| 4 | Adm. & Gen. Expenses | | | |
| 5 | Depreciation | | | |
| 6 | Interest charges | | | |
| 7 | Return on equity | | | |
| 8 | Income Tax | | | |
| 9 | Total revenue requirement | | | |
| 10 | Less: Non tariff income | | | |
| **11** | **Net revenue requirement (9-10)** | | | |
| 12 | Revenue from tariff | | | |
| 13 | Gap (11 - 12) | | | |
| 14 | Gap for FY ____________ | | | |
| 15 | **Total gap (13+14)** | | | |
| 16 | Revenue surplus carried over | | | |
| 17 | Additional revenue from proposed tariff | | | |
| 18 | Regulatory asset | | | |
| 19 | **Energy sales (MU)** | | | |

# Appendix - D

**ADDITIONAL COMMON FORMATS TO BE FILLED BY**

**(1) GENERATING COMPANY**
**(a) THERMAL GENERATION**
**(b) HYDEL GENERATION**
**(2) TRANSMISSION LICENSEE**
**(3) DISTRIBUTION LICENCEE**

**For the year ________________**

**Format-1**

**Name of the Licensee or: _______________**
**Name of the Generating Company: ___________________**
**Name of the Generating Station: _____________________**

**EMPLOYEE COST**

**FOR THE YEAR ___________________**

**(Rs. in Crores)**

| **S.N** | **Particulars** | **Previous Year (Actuals)** | **Current Year (Estimated)** | **Ensuing Year (Projected)** |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| | **SALARIES & ALLOWANCES** | | | |
| 1 | Basic Pay | | | |
| 2 | Dearness Pay | | | |
| 3 | Dearness Allowance | | | |
| 4 | House rent Allowance | | | |
| 5 | Fixed medical allowance | | | |
| 6 | Medical reimbursement charges | | | |
| 7 | Over time payment | | | |
| 8 | Other allowances (detailed list to be attached) | | | |
| 9 | Generation incentive | | | |
| 10 | Bonus | | | |
| 11 | **Sub-Total** | | | |
| | **Terminal Benefits** | | | |
| 12 | Leave encashment | | | |
| 13 | Gratuity | | | |
| 14 | Commutation of Pension | | | |
| 15 | Workman compensation | | | |
| 16 | Ex- gratia | | | |
| 17 | **Sub-Total** | | | |
| | **Pension Payment** | | | |
| 18 | Basic Pension | | | |
| 19 | Dearness Pension | | | |
| 20 | Dearness allowance | | | |
| 21 | Any other expenses | | | |
| **22** | **Sub-Total** | | | |
| **23** | **Total (11+17+22)** | | | |
| 24 | Amount capitalised | | | |
| 25 | Net amount | | | |
| 26 | Add prior period expenses * | | | |
| 27 | Grand Total | | | |

*** Year - wise details of prior period employees cost, if any, may be provided**
**Note:**
**Separate statement to be furnished for Previous year (Actuals), Current year (Estimated) and Ensuing year (Projected)**

**Format- 2**

**Name of the Licensee: _______________**

**TOTAL NUMBER OF EMPLOYEES**

| S.N | Particulars | Previous year (Actuals) | Current Year (Estimated) | Ensuing year (Projected) |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| 1 | Number of employees as on 1st April | | | |
| 2 | Number of employees on deputation / foreign service as on 1st April | | | |
| 3 | Total Number of employees (1+2) | | | |
| 4 | Number of employees retired / retiring during the year | | | |
| 5 | Number of employees at the end of the year (3-4) | | | |

**Format- 3**

**Name of the Licensee: _______________**

**EMPLOYEES PRODUCTIVE PARAMETERS**

| S.N | Particulars | Previous year (Actuals) | Current Year (Estimated) | Ensuing year (Projected) |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| 1 | Number of consumers in million | | | |
| 2 | Connected load in kW | | | |
| 3 | Line circuit in KM (LT+HT) | | | |
| 4 | Energy sold in MU | | | |
| 5 | Employees per MU of energy sold | | | |
| 6 | Employees per 1000 consumers | | | |
| 7 | Share of employees cost in total expenses | | | |
| 8 | Employees cost in paise / kWh of energy sold | | | |
| 9 | Line circuit KM (EHT Lines) | | | |
| 10 | Employees per KM of EHT line (Transmission related) | | | |
| 11 | Power station installed capacity own generation (MW) | | | |
| 12 | Employees per MW of capacity For generating company | | | |

**Format - 4**

**Name of the Licensee: _______________**

## REPAIRS AND MAINTENANCE EXPENSES

**(Rs. in Crores)**

| S.No | Particulars | Previous year (Actual) | Current year (Estimated) | Ensuing Year (Projected) |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| 1 | Plant & Machinery | | | |
| | -Plant and Apparatus | | | |
| | -EHV Sub-stations | | | |
| | - 33 kV Sub-stations | | | |
| | - 11 kV Sub-stations | | | |
| | -Switch gear and cable connections | | | |
| | - Others | | | |
| | **Total** | | | |
| 2 | Building | | | |
| 3 | Hydraulic works & Civil Works | | | |
| 4 | Line cable & Network | | | |
| | - EHV Lines | | | |
| | -33 kV Lines | | | |
| | -11 kV Lines | | | |
| | -LT Lines | | | |
| | -Meters and metering equipment | | | |
| | -Others | | | |
| | **Total** | | | |
| 5 | Vehicles | | | |
| 6 | Furniture & Fixtures | | | |
| 7 | Office equipments | | | |
| 8 | Operating expenses | | | |
| 9 | **Total** | | | |
| 10 | Add / Deduct share of other (To be specified) | | | |
| 11 | **Total expenses** | | | |
| 12 | Less capitalized | | | |
| 13 | **Net expenses** | | | |
| 14 | Add prior period * | | | |
| 15 | **Total expenses charges to revenue as R&M expenses** | | | |

* Year - wise details of these charges may be provided.

**Format - 5**

**Name of the Licensee: _______________**

## ADMINISTRATION AND GENERAL EXPENSES

**(Rs. in Crores)**

| S.N | Particulars | Previous year (Actuals) | Current year (Estimated) | Ensuing year (Projected) |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| 1 | Rent, rates & taxes | | | |
| 2 | Insurance | | | |
| 3 | Telephone, postage & Telegrams | | | |
| 4 | Consultancy fees | | | |
| 5 | Technical fees | | | |
| 6 | Other professional charges | | | |
| 7 | Conveyance & travel expenses | | | |
| 8 | Electricity & Water charges | | | |
| 9 | Others | | | |
| 10 | Freight | | | |
| 11 | Other material related expenses | | | |
| 12 | Total expenses | | | |
| 13 | Less Capitalised | | | |
| 14 | Net expenses | | | |
| 15 | Add Prior period* | | | |
| 16 | Total expenses charged to revenue | | | |

* Year-wsie details of these charges may be provided.

Format- 6

Name of the Licensee: _______________

## VALUE ASSETS AND DEPRECIATION

(Rs. Crores)

| S.No | Name of the Asset | Value of Assets at the beginning of the year | Addition during the year | Withdrawn during the year | Value of Assets at the year | Rate of Depreciation (%) | Depreciation charges for the year |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |

**Note:**

**Separate statement to be furnished for Previous year (Actuals), Current year (Estimated) and Ensuing year (Projected)**

Format- 7

**Name of the Licensee:** _______________

**DETAILS OF LOANS FOR THE YEAR**

(Rs. in lakhs)

| S.N | Particulars | Opening balance | Rate of Interest | Addition during the year | Repayment during the year | Closing balance | Amount of interest paid |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | SLR Bonds | | | | | | |
| 2 | Non SLR Bonds | | | | | | |
| 3 | LIC | | | | | | |
| 4 | REC | | | | | | |
| 5 | Commercial Banks | | | | | | |
| 6 | Bills discounting | | | | | | |
| 7 | Lease rental | | | | | | |
| 8 | PFC | | | | | | |
| 9 | GPF | | | | | | |
| 10 | CSS | | | | | | |
| 11 | Working capital loan | | | | | | |
| 12 | Others (details to be given) | | | | | | |
| **13** | **Total** | | | | | | |
| 14 | Add State Govt. Loan | | | | | | |
| **15** | **Total (13 +14)** | | | | | | |
| 16 | Less capitalisation | | | | | | |
| 17 | Net Interest | | | | | | |
| 18 | Add prior period | | | | | | |
| 19 | Total Interest | | | | | | |
| 20 | Finance charges | | | | | | |
| 21 | Total Interest and finance charges | | | | | | |

**Note:**
**Separate statement to be furnished for Previous year (Actuals), Current year (Estimated) and Ensuing year (Projected)**

**Format- 8**

**Name of the Licensee: _______________**

## INTEREST CAPITALISED

**(Rs. in lakhs)**

| S.N. | Interest capitalized | Previous year (Actuals) | Current year (Estimated) | Ensuing year (Projected) |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| 1 | WIP | | | |
| 2 | GFA at the end of the year | | | |
| 3 | WIP+GFA at the end of the year | | | |
| 4 | Interest (Excluding interest on WCL) | | | |
| 5 | Interest Capitalised | | | |

WIP=Work -in - Progress
GFA=Gross Fixed Assets
WCL=Working Capital Loan

**Format- 9**

**Name of the Licensee: _______________**

**INFORMATION REGARDING RESTRUCTURING OF OUTSTANDING LOANS DURING THE YEAR**

**(Rs. in lakhs)**

| S.N | Source of loan | Amount of original loan | Old rate of interest (%) | Amount already restructured | Revised rate of interest (%) | Amount now being restructured | New rate of interest (%) |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**Format- 10**

**Name of the Licensee: _______________**

### INFORMATION REGARDING REVENUE FROM OTHER BUSINESS

**(Rs. in lakhs)**

| S.N | Particulars | Amount |
|---|---|---|
| 1 | 2 | 3 |
| 1 | Total Revenue from other business | |
| 2 | Income from other business to be considered for licenses business as per regulations | |

**Format- 11**

**Name of the Licensee: _______________**

### INFORMATION REGARDING WORKING CAPITAL FOR THE CURRENT AND ENSURING YEAR

**(Rs. in lakhs)**

| S.N | Particulars | Amount |
|---|---|---|
| **1** | **2** | **3** |
| 1 | Fuel cost | |
| 2 | Power Purchase Cost | |
| 3 | One month employees cost and adm.& Gen. Expenses | |
| 4 | One month R&M Cost | |
| 5 | Two Months Receivables | |
| 6 | Total | |

**Format- 12**

**Name of the Licensee: _______________**

**INFORMATION REGARDING FOREIGN EXCHANGE RATE VARIATION (FERV)**

**(Rs. in lakhs)**

| S.N | Particulars | Amount |
|---|---|---|
| 1 | 2 | 3 |
| 1 | Amount of liability provided | |
| 2 | Amount recovered | |
| 3 | Amount adjusted | |

**Format- 13**

**Name of the Licensee: _______________**

**INFORMATION REGARDING WHOLESALE PRICE INDEX (ALL COMMODITIES)**
**(to be supplied with documentary evidence)**

**(Rs. in lakhs)**

| S.N | Period | WPI | Increase over |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 1 | As on April 1 of previous year | | |
| 2 | As on April 1 of current year | | |
| 3 | As on April 1 of ensuing year | | |

Format- 14 (A)

**Name of the Licensee: ________________________**

**A. ESTIMATED REVENUE AT EXISTING TARIFF (LT)**

| S.No | Category | Connected Load (KW) | Fixed Charges per KW (Rs.) | Total Fixed Charges (Rs. in Lakhs) | Slab in the Category | Sale in each Slab (MU) | Existing Tariff Rate (paise per Kwh) | Amount (in lakh) | Total amount for the category (lakh) | Average tariff for the year (paise per Kwhr) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| **3** | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 11 | **Total (LT)** | | | | | | | | | |

Format- 14 (B)

**Name of the Licensee: ________________________**

## B. ESTIMATED REVENUE AT EXISTING TARIFF (HT)

| S.No | Category | Contract Demand (kVA) | Billing Demand (KVA) | Sale of Energy (MU) | Fixed Charge (Rs / kVA) | Energy Charges (Ps / kWH) | Total Fixed Charges (Rs. Lakhs) | Total Energy Charges (Rs. lakhs) | Grand Total amount for the category (Lakh) | Average tariff for the year (paisa per Kwh) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| **3** | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | **Total (HT)** | | | | | | | | | |
| 11 | **Total (LT)** | | | | | | | | | |
| 12 | **Total (LT+HT)** | | | | | | | | | |

Format- 14 (c)

**Name of the Licensee: ________________________**

### C. ESTIMATED REVENUE AT EXISTING TARIFF

| S.No | Category | Contract Demand (KVA) | Billing Demand (KVA) | Sale of Energy (MU) | Existing Tariff | Total amount for the year (lakh) | Total amount for the category (Lakh) | Average tariff for the year (Paise per kwhr) |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | FC in Rs. per KVA | | | |
| 2 | | | | | EC in paise per Kwhr | | | |
| **3** | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | **Total (LT+HT+ EHT)** | | | | | | | |

Format- 14 (d)

**Name of the Licensee: ________________________**

### D. ESTIMATED REVENUE AT EXISTING TARIFF

| S.No | Category | Contract Demand (KVA) | Billing Demand (KVA) | Sale of Energy (MU) | Existing Tariff | Total amount for the year (lakh) | Total amount for the category (Lakh) | Average tariff for the year (Paise per kwhr) |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | FC in Rs. per KVA | | | |
| 2 | | | | | EC in paise per Kwhr | | | |
| **3** | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | **Grand Total** | | | | | | | |

Format - 15

**Name of the Licensee: _______________________**

**Investment Plan (Scheme - wise)**

**(Rs. in lakhs)**

| S.N | Name of Scheme/ Project | Approved Outlay | Previous Year (Actuals) | Current Year (RE) | Ensuing Year (Projections | Progressive Expenditure upto Ensuing Year |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Note: I ) Information for previous year to be given in columns 1 to 7
Note: ii) Information for the current year to be given in columns 1 to 5
iii) Schemes costing Rs. Ten lakhs are above to be shown.
For others lumpsum provision may be indicated.

Format- 16

**Name of the Licensee: ________________________**

**Investment Plan (Year - wise)**

**(Rs. in lakhs)**

| S.N | Year | Originally proposed by the Utility | Approved by the Commission | Revised by the Utility | Revised approval by the Commission in review | Actual expenditure |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Note: I ) Information for previous year to be given in columns 1 to 7
Note: ii) Information for the current year to be given in columns 1 to 5

**Format- 17**

**Name of the Distribution Licensee: ___________________________**

## WORKS-IN-PROGRESS

**(Rs. in lakhs)**

| S.N | Particulars | Previous year (Actuals) | Current year (Estimated) | Ensuing year (Projected) |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |
| 1 | Opening balance | | | |
| 2 | Add: New inverstments | | | |
| 3 | Total | | | |
| 4 | Less investment capitalised | | | |
| 5 | Closing balance | | | |