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BIHAR ELECTRICITY REGULATORY COMMISSION, PATNA

TERMS AND CONDITIONS FOR DETERMINATION OF TARIFF

NOTIFICATION

The 24th April 2007

No. BERC/Regl-10/06-2/2007 – In exercise of the powers conferred under section 181 read with sections 45(2), 61 and 62 of the Electricity Act, 2003 (36 of 2003) and all powers enabling it in that behalf, the Bihar Electricity Regulatory Commission hereby makes the following regulations for prescribing the terms and conditions for determination of Tariff, namely:

Chapter 1

General

1. Short title and commencement

(1) These regulations shall be called the Bihar Electricity Regulatory Commission (Terms and conditions for determination of Tariff) Regulations, 2007.

2. Scope and extent of application

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

(2) These regulations shall be applicable in all other cases.

Provided that the Commission may prescribe the relaxed norms of operation, including the norms of target availability and Plant Load Factor as well as lower return on equity, than those contained in these

regulations for a generating station, transmission system and distribution system under the control of an integrated utility or a generating company or transmission licensee or distribution licensee, for determination of tariff.

3. Definitions

(1) In these regulations unless the context otherwise requires:-

(i) **'Act'** means Electricity Act 2003 (36 of 2003) as amended from time to time;

(ii) **'Authority'** means Central Electricity Authority constituted under Section 70 of the Electricity Act 2003;

(iii)**'Combined average unit cost of supply'** means the total Revenue Requirement for the year adjusted by the revenue gaps of the previous years divided by the total energy sold during the year; (iv)**'Commission'** means Bihar Electricity Regulatory Commission constituted by the State Government (under section 82 of the Act); (v) **'Control Period'** means the period before which the long term tariff principles for distribution entities takes effect.

(vi)**'Current year'** means the year in which petition for determination of tariff is filed;

(vii) **'Force Majeure Event'** means event beyond the control of the integrated utility or generating company or the licensee, including and not limited to, earthquake, cyclone, flood, storm, war, terrorist attack, civil commotion or similar other such occurrence that may lead to any act that would involve a breach of relevant provisions in laws or regulations;

[1][(viii) **'FPPCA'** means Fuel and Power Purchase Cost Adjustment;]

(ix) **'Integrated utility'** means the Bihar State Electricity Board in its present form or the successor entity of the Board performing one or more of the functions of generation, transmission, distribution and trading after restructuring of the Board;

1. Sl.Nos. "(viii), (xiii), (xiv)" of Regulation 3(1) are inserted by the BERC (Terms and Conditions for Determination of Tariff) [1st Amendment] Regulations, 2012 vide Bihar Gazette No. 452 dated 3rd September, 2012 (w.e.f. 03.09.2012)

(x) **'Licensee'** means a person who has been granted a license under section 14 of the Act;

(xi)**'Regulations'** means Regulations for determination of Tariff notified by the Bihar Electricity Regulatory Commission contained in these Regulations.

(xii)**'State Government'** means Government of Bihar;

[1][(xiii)**'Schedule'** refers to the schedule appended to these Regulations;] [1][(xiv)**'Secretary'** means Secretary of the Bihar Electricity Regulatory Commission;]

(xv)**'Tariff'** means schedule of charges for generation, transmission, distribution and trading of electricity as well as various charges for providing open access of electricity, as determined by the Commission from time to time;

(xvi)**'Year'** means financial year;

(2) The words and expressions, specifically applicable to various functions such as generation, transmission, distribution etc have been defined in the respective chapters detailed hereunder;

(3) Words and expressions not defined in these regulations but defined in the Act shall have the meaning assigned to them under the Act.

4. Guidelines for determination of tariffs:

The Commission shall be guided in determination of tariff by the following: (1) The principles and guidelines specified by the Central Electricity Regulatory Commission for determination of tariff applicable to an integrated utility or generating company or transmission licensee from time to time.

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

(3) Guidelines laid down in Section 61 of the Electricity Act, 2003.

5. Application for determination of tariff

(1) An integrated utility or a generating company or a transmission licensee, or a distribution licensee, as the case may be, may make an application before the Commission for determination of tariff in respect of completed units of the generating stations, the lines / sub stations of the transmission system or for the areas of supply for the distribution system.

(2) In the case of existing generating station or the existing transmission system, the integrated utility or generating company or the transmission licensee, as the case may be shall make an application for determination of tariff as per the formats given in Appendices A to C to these Regulations. For distribution licensee, these shall be as per the ARR formats given in Appendix D to these Regulations. The Commission may make appropriate modifications from time to time in the formats, as it deems fit.

(3) (a) In case of a generating station or a transmission system or part thereof declared under commercial operation on or after the notified date of these Regulations an application for determination of tariff shall made in two stages, namely:

Stage I: An integrated utility or a generating company or a transmission licensee may make an application as per the formats specified by the Commission for determination of provisional tariff in advance of the anticipated date of completion of the project based on the capital expenditure actually incurred upto the end of the month preceeding to the date of making of the application, accompanied by annual accounts of the financial year ending prior to the date of application duly audited and certified by the statutory auditors, and the provisional tariff shall be charged from the date of commercial operation of the respective unit of the generating station or the transmission system.

Stage II: An integrated utility or a generating company or a transmission licensee shall make a fresh application in the same format, as above, for determination of final tariff based on the actual capital expenditure incurred upto the date of commercial operation of the generating station or the transmission system, duly audited and certified by the statutory auditors.

(b) An integrated utility or a distribution licensee shall file the Annual Revenue Requirement (ARR) only once in a year before the Commission during the control period.

6. Procedure for filing application

(1) An application shall be filed before the Commission in the prescribed formats for determination of tariff by:

(i)the integrated utilityorgeneratingcompany as in AppendicesAand B. (ii)the integrated utility or transmission licensee as in Appendix C.

(iii)the integrated utility or distribution licensee in Annual Revenue Requirement format in ***Appendix D**.

*** All 34 Formats of Appendix D have been deleted and appended to BERC (Multi Year Distribution Tariff) Regulations, 2015 notified vide Bihar Gazette No. 1046 dt. 15.09.20151 (w.e.f. 15.09.2015)**

(2) Each application shall be accompanied by such fee as may be prescribed by the Commission from time to time.

(3) The application shall be sent by registered post Ack due or by Hand delivery.

(4) The application shall be supported with an affidavit by an authorised person or a person, who is acquainted with all facts, stated in the application

(5) The applicant shall publish the application in such abridged form and manner as may be specified by the Commission, inviting suggestions/objections/comments thereon from general public and stakeholders in at least two daily newspapers, one in English and another in Hindi language having wide circulation in the area of supply on the dates specified by the Commission. The applicant shall also 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 wherein the notice has been published.

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

(7) The applicant shall file his comments / remarks on the suggestions / objections received, if any, within 10 days from the last date of receipt of such suggestions/objections.

(8) The distribution licensee shall file ARR along with date in prescribed formats as given in Appendix-D of these Regulations for each financial year by 15th November of proceeding year.

7. Core business

For the purpose of these regulations, core business means the regulated activities of generation or any regulated business as per section 12 of the Act and does not include any other business or

activity of an integrated utility or a generating company or a transmission licensee or a distribution licensee.

8. Tariff determination

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

(2) For the purpose of determination of tariff, the capital cost of generation / transmission project shall be broken up into stages and by distinct units

forming part of the project. Where the stage – wise, unit – wise, line – wise or substation –wise breakup of the capital cost of the project is not available and in case of on – going projects, common facilities shall be apportioned on the basis of the installed capacity of the units and lines or sub stations. In the case of multi – purpose hydro – electric projects with irrigation, flood control etc, the power component of the project only shall be considered for determination of tariff.

Note: The term "Project" includes a generating station and/or the transmission system.

9. Norms of operation

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

(1) The Commission may decide to defer from the normative parameters or extend the deadline of the implementation of the given normative parameters on a case to case basis for existing plants due to mix of vintage, size, technology (eg. old technology, CFBC technology etc) 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. The Commission shall provide the relaxation on a time bound basis provided the unit can outline a road map to boost its efficiency.

10. Deviation from norms

The tariff for sale of electricity by an integrated utility or a generating company may also be fixed in deviation of the norms specified in these regulations subject to the conditions 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.

11. Multi year Tariff principles and guidelines

(1) The Commission may adopt multiyear tariff principles for matters relating to calculation of revenue requirements and tariff determination of the integrated utility / generating company and licensees including extent of investment, reduction of loss levels, other efficiency gains, revision in charges, changes in tariff structure and such other matters as the Commission may by general or special order direct.

The Commission shall fix, as and when it considers appropriate, a date for adoption of the MYT principles.

(2) The Commission may, as and when it considers appropriate, issue guidelines for filing Revenue Requirement and Tariff Proposals for a period in excess of a financial year and unless waived by the Commission, an integrated utility / a generating company shall follow such guidelines issued by the Commission.

12. Charging of permissible tariff

An integrated utility / a generating company or a licensee shall not charge tariff in excess of the tariff fixed by the Commission. If any integrated utility or a generating company or a 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 integrated utility or generating company or licensee.

13. Excess or under recovery with respect to norms / targets

(1) The generating company or the licensee, as the case may be, shall retain the

entire gain arising from over achievement of the norms / targets laid down by the Commission from time to time.

(2) The generating company or the licensee, as the case may be, shall bear the entire loss an account of its failure to achieve the norms / targets laid down by the Commission from time to time.

14. Cross Subsidy

(1) The cross subsidy for a consumer category means the difference between the average per unit rate based on tariff schedule of the Commission for that category and the combined average cost of supply per unit expressed in percentage terms as a portion of the combined average cost of supply. (2)

In the first phase, the Commission shall determine the tariff so that it progressively reflects the combined average cost of supply of electricity and also reduce and eliminate cross subsidies within a reasonable period. In

the second phase, the Commission shall consider moving towards category – wise cost of supply as a basis for determination of tariff.

15. Subsidy

(1) The State Government may, at any time as it considers appropriate, propose any subsidy to any consumer or classes of consumers in the tariff determined or to be 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, the amount to compensate the licensee affected by the grant of subsidy in the manner and terms and conditions for such payment of subsidy as the Commission may direct. The State Government shall send a proposal for this purpose to the Commission.

(2) If the payment of subsidy is not made by the State Government in accordance with the provisions contained in section 65 of the Act, the amount, which the State Government has failed to pay, shall be added in the tariff and charged to the concerned class or classes of consumers.

(3) The Distribution licensee shall furnish the required information to the Commission that the subsidy amount received by it from the State Government has been duly accounted for and utilised for the purpose for which the subsidy is received.

16. Tax on income

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

(2) Under – recovery or over – recovery of any amount from the beneficiaries or the consumers on account of such tax, having been passed on to them shall be adjusted every year on the basis of income-tax assessment under Income Tax Act, 1961, as certified by the statutory auditors. An integrated utility or the generating company or the transmission licensee / distribution licensee, as the case may be, may make such adjustments directly.

Provided that

(i) tax on any income, other than core business, shall not constitute a pass through component in tariff and the tax on such other income shall be borne by the integrated utility or generating company or the transmission / distribution licensee, as the case may be.

(ii) the generating station–wise profit before tax in the case of integrated utility or the generating company, and the area of supply–wise profit before tax for the transmission and distribution licensee respectively estimated for a year in advance

shall constitute the basis for distribution of the corporate tax liability to all the generating stations and the transmission and distribution licensees respectively.

(iii)the benefit of tax – holiday as applicable in accordance with provisions of Income Tax Act, 1961 shall be passed on to the beneficiaries.

(iv)in the absence of any equitable basis, the credit for carry forward losses and unabsorbed depreciation shall be given in the proportion as provided in sub clause (ii) above.

(v) income – tax allocated to the thermal generating station shall be charged to the beneficiaries in the same proportion as annual fixed charges; income tax allocated to the hydro – generating station shall be charged to the beneficiaries in the same proportion as annual capacity charges and in the case of intra-state transmission, the sharing of income – tax shall be in the same proportion as annual transmission charges.

17. Extra Rupee Liability

Extra rupee liability towards interest payment and loan repayment corresponding to the normative foreign debt and actual foreign debt, as the case may be, in the relevant year shall be permissible provided it arises directly due to Foreign Exchange Rate Variation. The integrated utility or the generating company or the transmission license / or distribution licensee shall recover the foreign exchange rate variation on a year to year basis as income or expense for the period in which it arises.

18. Decision of the Commission

The Commission shall, after considering the suggestions / objections received in response to the public notice, and the comments / remarks of the applicant thereon.

(i) issue a tariff order accepting the application with such modification or such conditions as it may consider appropriate after giving an opportunity of hearing to the applicant, the beneficiary or any person who has filed objections / suggestion or any one or more of them, if so required, before issue of tariff order.

(ii)reject the application for reasons to be recorded in writing, if the application is not in accordance with these regulations, or the Act, the

rules and regulations made thereunder or a provision of any other law in force. The applicant shall be given an opportunity of being heard before rejecting the application.

19. Hearing and communication of decision of the Commission on Tariff The Commission shall initiate a proceeding on the revenue calculations and tariff proposals given by the Transmission or Distribution licensee and hold public hearing(s) to decide on such revenue calculations and tariff proposals. Considering the proceedings of the hearing(s) as well as suggestions/objections received in response to the public notice, the Commission shall issue an order communicating its decision on the revenue calculations and Tariff proposals to the Transmission or Distribution licensee, as the case may be. The Commission shall forward within 7 days of making the order, a copy of the order to the State Government, the Central Electricity Authority, the concerned licensees and other authorities, as may be necessary.

20. Tariff publication

(1) While issuing an order as above or at any time thereafter, the Commission shall direct the Licensee for the publication of tariff determined by it, which the Transmission or Distribution Licensee shall charge from the different consumers/customers or categories thereof in the ensuing period determined by it.

(2) The Transmission/Distribution licensee shall publish the tariff, approved by the Commission in the newspapers at least in two newspapers on in English and other in Hindi language having wide circulation in its area of supply in the form and manner as directed by the Commission.

(3) The tariff as determined shall take effect from the date as given in the order of the Commission.

21. Periodicity of tariff determination and revision thereof

[2][(1) No tariff or any part thereof shall ordinarily be amended more frequently than once in any financial year, except in respect of any charges expressly permittedundertheterms of the Fuel and Power Purchase Cost Adjustment formulaasspecified*intheScheduleappendedtothese Regulations*.]

(2) The orders, which the Commission may issue to give effect to the subsidy whichtheStateGovernmentmaygrantfromtimetotime,shallnotbe construed as amendment to tariff.TheDistributionlicenseeshallmake appropriateadjustmentsforthesubsidyamountastheCommissionmay direct.

2. Substituted Regulation 21(1) by the BERC (Terms and Conditions for Determination of Tariff) [1st Amendment] Regulations, 2012 vide Bihar Gazette No. 452 dated 3rd September, 2012 (w.e.f. 03.09.2012)

22. Review and Truing up

(1) The Commission shall undertake a review along with next Tariff Order, of the expenses and revenues approved by the Commission in the current year Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates / pre-actuals of the 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 the year are made available, the Commission shall undertake a similar exercise as in sub-clause (1) above based on the final actual figures as per the audited accounts. This exercise based on the audited accounts shall be called 'Truing up'.

The truing up exercise for any year shall not ordinarily be considered after more than one year gap after 'Review'.

(3) The Revenue gap of next year shall be adjusted as a result of Review and Truing up exercises.

(4) While approving adjustments towards revenue / expenses in future years, arising out of Review / 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.

(5) For any revision of approvals, the licensee shall satisfy the Commission that the revision is necessary for the reasons beyond its control. In case additional supply is required to be made to any particular category, the licensee may, at any time during the year, make an application to the Commission for its approval, duly explaining the need for such change of consumer mix and additional supply of power and also indicating the manner in which the licensee proposes to meet the cost for such change of consumer mix and additional supply of power.

The Commission may consider according approval to such proposals provided the cost of additional supply of power is met by the beneficiary category.

23. Objection for recovery of income – tax and foreign exchange rate variation In case of any objection from the beneficiaries or the consumers for the recovery / adjustment as in Regulation 16(2)(i) above, the integrated utility or generating company or the transmission / distribution licensee, as the case may be, may make an application to the Commission for a decision.

24. Regulatory Asset

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 factor beyond the control of the integrated utility or generating company or the licensee and its full recovery in a single year will result in tariff shock to consumers. The Regulatory Asset so created along with carrying cost

shall be liquidated in a maximum of 3 years' period immediately following the year in which it is created.

25. Tariff of Electricity Trader

(1) The Commission shall approve the tariff for Power Purchase and procurement by the Distribution licensee from the Electricity Trader. On such approval by the Commission, the Electricity Trader shall be entitled to sell electricity to the Distribution licensee subject to the terms and conditions of the Power Purchase Agreement approved by the Commission.

(2) The Commission shall, from time to time, fix the trading margin of the Electricity Trader for intra – state trading in electricity in the State of Bihar. The sale of electricity by the Electricity Trader shall be subject to such further terms and conditions as may be laid down by the Commission for the purpose from time to time.

26. Generation Tariff

(1) The Commission may approve the tariff for the power purchase except central sector and procurement by the Distribution licensee from the integrated utility or a generating company. On such approval by the Commission, the integrated utility or the generating company shall be entitled to sell the energy to a Distribution licensee as per the tariff and the terms and conditions contained in the Power Purchase Agreement approved by the Commission.

(2) In cases, other than those covered under clause (1) above, the integrated utility or a generating company may file an application before the Commission for determination of tariff for electricity generated by it for the sale of electricity in the State of Bihar giving details of the fixed and variable costs associated with the generation.

(3) The application by an integrated utility or a generating company under clause (2) above may be filed for determination of tariff for sale of electricity to any specific purchaser, including Distribution Licensee or to more than one purchaser or for general sale who may desire to purchase from it.

(4) The Commission may determine the tariff for sale of electricity by an integrated utility or generating company, which may thereafter enter into agreements for the sale based on the tariff determined and subject to the terms and conditions laid down by the Commission.

(5) The determination of tariff for generation, under this regulation shall not entitle an integrated utility or the generating company to sell energy to the Distribution licensee on long term or on short term basis except in accordance with the Power Purchase Agreement or procurement to be finalised by the Distribution licensee subject to the terms and conditions which the Commission may lay down for the purpose from time to time.

27. Right to vary terms and conditions

The terms and conditions for determination of tariff specified in these regulations are in the nature of general framework on the basis of which the tariff shall be determined. The Commission reserves its right to vary these terms and conditions, as and when deems fit.

28. Power to remove difficulties

If any difficulty arises in giving effect to these regulations, the Commission may, suo-motu or otherwise, by an order make such provisions, not inconsistent with these regulations, as it may consider appropriate for removing such difficulties.

29. Limitation of Power of Commission

Nothing in these regulations shall be deemed to limit the powers of the Commission to deal with any matter or exercise any power under the relevant Acts for which no regulations have been made / framed and to make such orders as it may consider appropriate to meet the ends of justice in any case.

30. Powers to amend

The Commission may, at any time as it deems fit, amend, after or modify these regulations to remove any defect or error noticed by it in performance of its functions.

Chapter 2
Thermal Power Generating Station

31. Definitions

Unless the context otherwise requires for the purposes of this chapter:

(i) **'Additional Capitalisation'** means the capital expenditure actually incurred after the date of commercial operation of a generating station and admitted by the Commission after prudent check subject to the provisions of Regulation 35;

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

(iii) **'Availability'** in relation to a generating station for any period means the average of the daily declared capacities (DCs) for all the days during the period expressed as a percentage of the installed capacity of the station minus normative auxiliary power consumption in MW and shall be computed in accordance with the following formula:

Availability =

$$10000 \times \sum_{i=1}^{N} DCi \quad NxICx(100 - Aux_n) \quad \%$$

where:

IC = installed capacity of the generating station in MW

DCi = Averaged declared capacity for the i th day of the period in MW N = No. of days during the period; and

Aux_n = Normative Auxiliary Energy Consumption as a percentage of the gross generation.

(iv) **'Beneficiary'** in relation to generating station means the person buying the power generated at such a generating station on payment of Annual Fixed Charges.

(v) **'Block'** in relation to a combined cycle thermal generating station includes combustion turbine generator (s), associated waste heat recovery boiler (s), connected steam turbine – generator and auxiliaries; (vi) **'Cut off date'** means date of the first financial year closing after one year of the date of commercial operation of the generating station.

(vii) **'Date of Commercial Operation' or 'COD'**, in relation to a unit, means the date declared by the integrated utility or generating company after demonstrating the "Maximum Continuous Rating" (MCR) or Installed Capacity (IC) through a successful trail run after notice to the beneficiaries; and in relation to the generating station, the date of commercial operation means the date of commercial operation of the last unit or block of the generation station.

(viii) '**Declared Capacity' or 'DC'** means the capability of the generating station to deliver ex-bus electricity in MW declared by such generating station in relation to any period of the day or whole of the day, duly taking into account the availability of the fuel.

Note: In case of a gas turbine generating station or a combined cycle generating station, the generating station shall declare the capacity of the units and modules on gas fuel and liquid fuel separately and these shall be scheduled separately. Total declared capacity and the total scheduled generation for the generating station shall be the sum of the declared

capacity and the scheduled generation for gas fuel and liquid fuel for the purpose of computation of availability and Plant Load Factor respectively.

(ix) **'Existing Generating Station'** means a generating station declared under Commercial Operation from a date prior to the notified date of the Tariff Regulations as per Regulation 1(2).

(x) **'Gross Calorific Value' or GCV** in relation to a thermal power generation means the heat produced in k -Cal by complete combustion of one kilogram of solid fuel or one litre of liquid fuel or one standard cubic metre of gaseous fuel, as the case may be.

(xi) **'Gross Station Heat Rate' or 'GHR'** means the heat energy input in k/Cal required to generate one kWh of electrical energy at generator terminal.

(xii) **'Infirm Power'** means electricity generated prior to commercial operation of the generating unit or a generating station.

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

(xiv) **'Maximum Continuous Rating' or 'MCR'** in relation to a unit of a thermal power generating station means the maximum continuous out put at the generator terminals, guaranteed by the manufacturer at rated parameters; and in relation to a unit or a block of 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.

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

(xvi) **'Original Project Cost'** means the actual expenditure incurred by the integrated utility / generating company as per original scope of the project upto the first financial year closing, after one year from the date of commercial operation of the last unit, as admitted by the Commission for the determination of generation tariff;

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

$$N\ PLF = 10000X \sum_{i=1} SGi$$

where

$$\frac{N \times IC \times (100 - Aux_n)}{} \%$$

IC= installed capacity of the generating station in MW

SGi= Scheduled generation in MW for the i th time block of the period N = No. of time blocks during the period; and

Aux_n =Normative Auxiliary Energy Consumption as a percentage of the gross generation.

(xviii)**'Project'** means generating station

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

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

the average frequency for any time block is below 49.02 Hz and the scheduled generation is more than 96.5% of the declared capacity, the scheduled generation shall be deemed to have been reduced to 96.5% of the declared capacity.

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

(xxi) **'Unit'** in relation to a thermal power generating station means steam – generator, turbine generator and auxiliaries or in relation to a combined

cycle thermal power generating station means turbine generator and auxiliaries.

32. Components of tariffs

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

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

(a)interest on capital

(b)Depreciation, including Advance Against Depreciation

(c)Return on equity

(d)Operation and Maintenance expenses, and

(e)Interest on working capital

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

(4)Where the existing Power Purchase Agreement (including any changes, in the norms or parameters, made in the Power Purchase Agreement following renegotiation between the integrated utility and concerned generating company) lay down different parameters, such parameters shall continue to govern the parties for the term of the contract, but not for any renewal of the contract or any extension of the term of the contract subsequent to commencement of these regulations. Upon expiry of the existing term of PPA the parties shall be governed by the provisions contained in these regulations as amended from time to time.

33. Norms of Operation

The norms of operation as given here under shall apply:

(1)Target availability for recovery of full capacity (fixed) charges:

(a) Tariff availability for all thermal power generating stations: 80%

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

(2)Target Plant Load Factor for incentive:

(a) Tariff load factor for all thermal power generation stations: 80%

(b) Where the existing Power Purchase Agreement (including any changes, in the norms of parameters, made in the Power Purchase Agreement following renegotiation between the integrated utility and the concerned generating company) lay down a different parameter of PLF for the recovery of full fixed charges, such a parameter shall continue to govern the parties for the term of the contract, but not for any renewals of the contract or any extension of the term of the contract subsequent to the commencement of these

Regulations. Upon expiry of the term of the PPA, the parties shall be governed by the provisions of these Regulations as amended from time to time.

(3)Gross Station Heat rate:

(a)Coal based thermal power generating stations; other than those covered under sub-clause (b) and (c) below:

	200/210/250 MW sets	**500 MW and above sets**

During stabilization period	2600 K Cal / kWh	2550 K Cal / kWh
Subsequent period	2500 K Cal / kWh	2450 K Cal / kWh

(i) In respect of 500 MW and above units where the boiler feed pumps are electrically operated, the gross station heat rate shall be 40 K Cal / kWh lower than the station heat rate indicated above.

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

For coal unit sizes smaller than 210 MW, the Commission may allow a different normative heat rate based on scrutiny of past operational performance.

(iii) Where existing Power Purchase Agreement (including any changes, in the norms of parameters, made in the Power Purchase Agreement following renegotiation between the integrated utility and the concerned generating company) lay down a different parameter of Heat Rate, such a parameter shall govern the parties for the term of the contract, but not for any renewals of the contract or any extension of the term of the contract. Upon expiry of the term of the PPA, the parties shall be governed by the provisions of these Regulations as amended from time to time.

(b)Lignite – fired power generating stations:

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

(i)	for lignite having 50% moisture	Multiplying factor of 1.10
(ii)	for lignite having 40% moisture	Multiplying factor of 1.07
(iii)	for lignite having 30% moisture	Multiplying factor of 1.04
(iv)	for other values of moisture content, the multiplying factor shall be pro – rated for moisture content between 30-40 and 40-50 depending upon the rated values of multiplying factor for the respective range given under sub-clauses (i) to (iii) above	

(c)Gas Turbine / combined cycle generating stations:

(i)Existing generating stations

The normative heat rates shall be specified by the Commission duly studying the past performance and the performance of similar technology / size machines owned by other utilities outside the State, including Central Power Sector Units, Private Power Institutions, State Electricity Boards etc. Till the completion of the study, the normative heat rate shall be 2100 K Cal / kWh under closed cycle operation.

(ii)Generating Stations declared under commercial operation:

	Advance class Machines	**E/EA/FC/E Class Machine**
Open cycle	2685 K Cal / kWh	2830 K Cal / kWh
Combined cycle	1850 K Cal / kWh	1950 K Cal / kWh

(iii)**Small Gas Turbine Power Generating Station:** The normative heat rates shall be as specified by the Commission. For setting the normative heat rates, the Commission shall study the past performance and the performance of similar

technology / size machines owned by other utilities outside the State, including Central Power Sector Units, Private Power Institutions, State Electricity Boards etc.

(4) Secondary fuel oil consumption

	During stabilization period	**Subsequent period**
Coal based thermal power generating stations	4.5.ml / kWh	2.0 ml / kWh
Lignite fired generating stations	5.0 ml / kWh	3.0 ml / kWh

Note: Where the existing Power Purchase Agreement (including any changes, in the norms of parameters, made in the Power Purchase Agreement following renegotiation between the integrated utility and the concerned generating company) lay down a different parameter for secondary fuel consumption, such a parameter shall govern the parties for the term of the contract but not for any renewal of contract or any extension of the term of the contract subsequent to the commencement of these Regulations. Upon expiry of the term of the existing PPA, the parties shall be governed by the provisions of these Regulations as amended from time to time.

(5)Auxiliary Energy Consumption:

	With cooling tower	**Without cooling tower**
(a)Coal based generating stations (i) 200 MW services (ii) 500 MW services steam driven boiler feed pumps Electrically driven feed pumps	9% 7.5% 9.0%	8.5% 7.0% 8.5%
(b) Gas turbine / combined cycle generating stations: (i) Combined cycle (ii) Open cycle		3.0% 1
(c) Lignite – fired power generating station	The auxiliary energy consumption norms shall be 0.5% more auxiliary energy consumption norms of coal – based generating sta	

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

2) The normative auxiliary energy consumption rates for units smaller than 210 MW shall be specified by the Commission. The Commission may study the past performance and the performance of similar technology / size machines owned by other utilities outside the state, including CPSUs, IPPs, SEBs etc.

3) Where the existing Power Purchase Agreement (including any changes, in the norms of parameters, made in the PPA following renegotiation between the integrated utility and the concerned generating company) lay down a different parameter for auxiliary consumption, such a parameter shall govern the parties for the term of the contract but not for any renewal of contract or any extension of the term of the contract subsequent to the commencement of these Regulations. Upon expiry of the term of the PPA, the parties shall be governed by the provisions of these Regulations as amended from time to time.

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

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

34. Capital Cost

Subject to prudent check by the Commission, the actual expenditure incurred on completion of the project shall form the basis for the determination of final tariff. The final tariff shall be based on the admitted capital expenditure actually incurred upto the date of commercial operation of the generating station and shall include capitalised initial spares subject to following ceiling norms as a percentage of the original project cost as on the cut off date:

(i)	Coal based / lignite fixed generating station	2.5%
(ii)	Gas turbine / combined cycle generating station	4.0%

Provided :

(i) where the Power Purchase Agreement entered into between the generating company and the beneficiaries provides a ceiling of actual expenditure, the capital expenditure shall not exceed such a ceiling for determination of tariff.

(ii) in case of existing generating station, the capital cost admitted by the Commission prior to the notified date of these regulations as per Regulation 1(2) of these Regulations shall form the basis for determination of tariff. The capital cost of the unbundled generating stations shall be the asset value as per the opening balance sheet.

(iii) The Commission shall scrutiny the project cost estimates by limiting to the reasonableness of the capital cost, financial plan, interest during construction, use of efficient technology and such other matters for determination of tariffs.

(iv) An application for the review of the capital cost may be forwarded to the Commission along with a copy of the detailed Project Report by the Project Sponsor's technical advisers.

35. Additional Capitalization

(1)The following actual capital expenditure **incurred after the date of commercial operation and upto the cut off date**, which is within the original scope of work, may be admitted by the commission subject to prudent check:

(i) deferred liabilities;

(ii) works deferred for execution;

(iii) procurement of initial capital spares in the original scope of work subject to the ceiling specified under Regulation 34;

(iv) liabilities to implement award of arbitration or for compliance of the order or decree of a court of law; and

(v) on account of change in law.

Provided that:

(i) the original scope of work along with the estimates of expenditure shall be submitted along with the application for determination of provisional tariff;

(ii) a list of deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating station.

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

(i) deferred liabilities relating to works / services within the original scope of work;

(ii) liabilities to implement award of arbitration or compliance of the order or decree of a court.

(iii) on account of change of law;

(iv) any additional work or services which have become necessary for efficient and successful operation of generating station but not included in the original project cost.

(v) Deferred work relating to ash pond or ash handling system in the original project cost.

(3)Any other expenditure on minor items / assets like normal tools and tackles, personal computers, furniture, air – conditioners, voltage stabilizers, refrigerators, fans, coolers, TV, washing machines, heat converters, carpets, mattresses etc, bought after cut off date shall not be considered for additional Capitalisation for determination of tariff with effect from the date of notification of these regulations by the Commission.

Note: The above list is only illustrative but not exhaustive.

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

Note: (1) Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno – economic grounds but falling within the scope of original work shall be serviced in the normative debt-equity ratio specified in Regulation 37.

(2) Any expenditure on replacement of old assets shall be considered after writing off the gross value of the original assets from the project cost except such items as are listed under clause (3) above

(3) Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced in the normative debt – equity ratio specified in Regulation 37.

(4) Any expenditure admitted by the Commission for determination of tariffs on renovation and modernisation and life extension shall be serviced on normative debt – equity ratio specified in Regulation 37 after writing off the original amount from the original project cost, if any replacement of existing assets is involved.

36. Sale of Infirm Power

Any revenue (other than the recovery of fuel cost) earned by the integrated utility / generating company from sale of infirm power, shall be taken as a reduction in capital cost and shall not be treated as revenue.

37. Debt – equity ratio

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

Provided that

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

(ii) in case of existing projects the actual debt: equity ratio shall be used for tariff determination. However any expansion shall be governed by clause (1) above.

(2)The debt and equity amount arrived at in accordance with clause (1) shall be used for calculation of interest on loan, return on equity, Advance Against Depreciation and foreign exchange rate variation.

38. Computation of capacity (Fixed) charges

The capacity (fixed) charges shall be computed on the following basis and their recovery shall be related to target availability:

(1)Interest on Capital

(a)Interest on loan capital shall be computed loan – wise on the loans indicated in Regulation 37.

(b)In the case of existing projects, the actual debt-equity ratio shall be used for tariff determination and interest on loans shall be paid at actuals. However any expansion shall be governed as per Regulation 37.

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

(d)The changes to the loan terms and conditions shall be effected from the date of such swapping and benefit passed on to the beneficiaries. (e)In case of any dispute, any of the parties may approach the Commission with proper application. However, pending receipt of the orders of the Commission on the application, the beneficiaries shall not withhold any payment of the integrated utility / generating company during the pendency of any dispute relating to the swapping of the loan.

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

(g)The integrated utility / generating company shall not make any profit on account of refinancing of loan and interest thereon.

(h)The integrated utility / generating company , at its descretion, swap loans having floating rate of interest with loans having fixed rate of interest, or vice versa at its own cost and gains or losses as a result of such swapping shall accrue to the generating company.

Provided that the beneficiaries shall be liable to pay interest for loan initially contracted, whether on floating or fixed rate of interest.

(2)Depreciation, including Advance Against Depreciation

(a)Depreciation

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

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

(ii) Depreciation shall be calculated annually, based on the straight-line method over the useful life of the asset and at

rates prescribed by the Central Electricity Regulatory Commission.

The residual value of the asset shall be considered as 10% and the depreciation shall be allowed upto a maximum of 90% of the historical capital cost of the asset. The land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include Additional Capitalisation on account of Foreign Exchange Rate Variation as allowed by the Central Government / Central Electricity Regulatory Commission

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

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

Note: Where existing Power Purchase Agreement (including any change in the norms or parameters, made in the Power Purchase Agreement following renegotiation between the integrated utility and concerned generating company) lay down a different parameter of depreciation such a parameter shall continue to govern as per the terms of the contract, but not for any renewal of contract or any extension of the term of the contract. Upon expiry of the term of the existing Power Purchase Agreement, the parties shall be governed by the provisions of these regulations as amended from time to time.

(b)Advance Against Depreciation (AAD)

In addition to permissible depreciation, the integrated utility / generating company shall be entitled to Advance Against Depreciation, computed in the manner indicated below:

AAD= Loan repayment as per Regulation 38(1) subject to a ceiling of 1/10th of the loan amount as per Regulation 37 minus depreciation upto that year.

Note:

(i) The Advance Against Depreciation shall be permitted only if the cumulative repayment upto a particular year exceeds the cumulative depreciation upto that year.

(ii) The Advance Against Depreciation shall be restricted to the extent of the difference between the cumulative repayment and cumulative depreciation upto that year.

All efforts shall be made for aligning the tenure of the long term debt with permissible rate of depreciation to reduce front loading of tariff through various mechanisms including resorting to take out finance to elongate debt repayment period so that there will be no need for any Advance Against Depreciation.

(3) Return on Equity

(a)The return on equity shall be computed on the equity base determined in accordance with Regulation 37 @ 14% per annum.

(b)In the case of existing projects, the actual debt equity shall be used for tariff determination. However, any expansion shall be governed by Regulation 37.

(c)Equity invested in foreign currency shall be allowed a return upto the prescribed limit in the same currency and the repayment on this account shall be made in Indian Rupee based on the exchange rate prevailing on the due date of billing.

(d)The premium raised by the integrated utility / generating company, while issuing share capital and investment of internal resources created out of its free reserve, if any, for funding the project, shall also be reckoned as a paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station and forms part of approved financial package.

The definition of equity thus would involve all net worth deployed in the capital works of the unit.

(e)Where existing Power Purchase Agreement (including any changes, in the norms or parameters made in the Power Purchase Agreement following renegotiation between the integrated utility and the concerned generating company) lay down a different parameter of Return on Equity, such a parameter shall continue to govern the parties for the existing term of the agreement but not for any renewal of the contract or any

extension of the contract. On expiry of the period of agreement, the parties shall be governed by the provisions of these regulations, as amended from time to time.

(4) Operation and Maintenance Expenses

The normative operation and maintenance expenses shall be as follows: (a)The Commission shall, for the purpose of fixing normative rates of operation and maintenance expenses, study the past performance and the performance of similar technology / size machines owned by other utilities outside the State including Public State Units, Private Power Institutions, State Electricity Boards etc.

(b)The normative rates shall be fixed as under.

(1)Coal based generating station:

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

(ii) For smaller units less than 210 MW, the Commission shall specify rates to be adopted by the generating station on completion of the study as indicated under clause (a) above.

(2)For Gas Turbine / combined cycle generating stations (other than small gas turbine generating stations): The Commission shall fix separate rates based on weighted average of the operation and maintenance expenses separately.

(a)For the stations having warranty spares
(b)For those stations which are not having warranty spares.

(i) For small gas turbine power generating stations the Commission shall fix separate rates which are having spares without warranty.

(ii) For lignite – fired generating stations, the Commission shall fix separate rates.

In respect of small gas turbine power generating stations / lignite fired generating stations (without warranty spares) the Commission shall fix separate rates.

(c) The operation and maintenance expenses include employee costs, Repair and Maintenance (R&M) and Administrative and General (A&G) expenses.

(5)Interest on Working capital

(a)**Working capital for purposes of calculation of interest shall be: (I) For Coal based / Lignite fired generating stations:**

(i) cost of coal or lignite for one and half months for pit – head generating stations and two months for non pit – head generating stations, corresponding to the target availability; (ii) Cost of secondary fuel oil for two months corresponding to target Availability;
(iii) Operation and Maintenance expenses for one month;
(iv) Maintenance spares at 1% of the historical cost escalated at 6% perannumfromthedateofcommercialoperation;and (v) Receivables equivalent to two months of fixed and variable charges for sale of electricity calculated on the target availability.

(II) Gas Turbine / Combined cycle generating stations:

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

(ii) Liquid fuel stock for ½ month

(iii) Operation and maintenance expenses for one month

(iv) Maintenance spares at 1% of the historical cost escalated at 6% per annum from the date of commercial operation.

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

(b)**Rate of interest on working capital**: The rate of interest on working capital shall be equal to the short – term Prime Landing Rate of State Bank of India on 1st April of the year in which the generating station or a unit there of is declared under commercial operation. Interest on working capital shall be payable on normative basis not withstanding that the integrated utility or generating company has not taken working capital loan from any outside agency.

Note: Where existing Power Purchase Agreement (including any changes in the norms or parameters made in the PPA following renegotiation between the integrated utility and the generating company) lay down a different rate of parameter of O&M rates, such a parameter shall continue to govern the parties for the period of agreement but not for any renewal or extension of the terms of agreement. On expiry of the existing period of PPA, the parties shall be governed by the provisions of these regulations as amended from time to time.

(c)Capacity charges: Full capacity charges shall be recoverable at target availability specified under Regulation 33(1) . Recovery of capacity

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

(d)Payment of capacity charges shall be on monthly basis in proportion to the allocated capacity.

39. Energy Charges

(1)Generating stations covered under Availability Based Tariff (ABT): Energy (variable) charges shall cover fuel costs which shall be worked out based on the ex-bus energy scheduled to be sent out from the generating station as per the following formula:

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

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

Energy charges (Rs.) = Rate of energy charges in Rs. / kWh X scheduled energy delivered (ex-bus) for the month in kWh) **Where,** Rate of Energy Charges (REC) shall be the sum of the cost of normative quantities of primary and secondary fuel for delivering ex-bus one kWh of energy in Rs. / kWh and shall be computed as under:

$$REC = \frac{100\,(P_p \times Q_p)_n + P_s X Q_s)_n}{[100 - (Aux_n)} \text{ (Rs. / kWh)}$$

where,

Pp = Price of primary fuel (coal / lignite / gas / liquid fuel) in Rs. / Kg or Rs. / cum. Or Rs. / litre, as the case may be.

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

Ps= Price of secondary fuel oil in Rs. / ml.

(Qs)n= Normative quantity of secondary fuel oil in ml / kWh as per Regulation 33 (4),
(Aux)n= Normative Auxiliary Energy Consumption as % of gross generation as per regulation 33 (5).

(3)Adjustment of rate of energy charge (REC) on account of variation in price or heat rate of fuels:

Initially Gross Calorific value of coal / lignite / gas liquid fuel shall be taken as per actuals of the preceeding three months. Any variation shall be adjusted on month to month basis on the basis of gross calorific value of coal / lignite gas / liquid fuel received and burnt and landed cost incurred by the integrated utility / generating company for procurement of the coal / lignite / oil / gas / liquid fuel as the case may be. No separate petition shall be filed before the Commission for fuel price adjustment. In case of any dispute, an appropriate application shall be made before the Commission for its orders.

(4)Landed cost of coal

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

Pit heat generating station - 0.3%

Non – pit heat generating station - 0.8%

40. Incentive

Incentive shall be payable to the generation company at a flat rate of 25 paise / kWh for ex-bus scheduled energy corresponding to schedule generation in excess of ex-bus energy corresponding to target Plant Load Factor.

41. Unscheduled interchange (UI)

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

Average frequency of time block (Hz)

Below	Not below	UI Rate (Paise / kWh)
-	50.50	0.0
50.50	50.48	6.0
50.48	50.46	12.0
49.84	49.82	204.0
49.82	49.80	210.0
49.80	49.78	219.0
49.78	49.76	228.0
49.04	49.02	561.0
49.02		570.0

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

Note: The above frequency range and UI rates are subject to change through a separate order by the Commission.

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

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

42. Rebate

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

43. Late payment surcharge

In the case of payment of bills for capacity charges and energy charges by the beneficiary or beneficiaries is delayed beyond a period of one month from the date of billing, late payment surcharge at the rate of 1.25% per month or part thereof shall be levied by the integrated utility / generating company.

44. Scheduling

The methodology of scheduling and calculation of availability shall be as follows:

(i) (a) The integrated utility / generating company shall make an advance declaration of the capability of its generating station which shall be actually made available to the Transmission Licensee / Distribution Licensee.

(b) The capability declared, referred to as the declared capability, shall form the basis for generation scheduling

(ii) The electricity shall be deliverable at ex-bus MW for the next day either as one figure for the whole day or as different figures for different periods of the day.

(iii) While declaring or revising its capability, the integrated utility / generating company shall ensure that the declared capability during non- peak hours is not less than during other hours. Exception to this rule shall be allowed in the case of tripping / re-synchronisation of units as a result of forced outage of units.

(iv) Generation scheduling shall be done according to operation procedure stipulated in the Indian Electricity Grid Code / State Electricity Grid Code.

(v) As per the declaration of the integrated utility / generating company, the state Load Despatch Centre shall communicate their shares to the beneficiaries against which they can submit their requirements.

(vi) Based on the requirement of the beneficiaries, the State Load Despatch Centre shall prepare the economically optimal generation schedules and drawal schedules, taking into account technical limitations on verifying the generation and transmission system constraints, and communicate the same to the integrated utility / generating company and also to the beneficiaries.

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

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

(viii) For the net drawal schedules of the beneficiaries, the transmission losses shall be apportioned to their drawal scheduled for the time being. A refinement may however be suggested by the Commission in future

depending on the preparedness of the respective State Load Despatch Centre.

(ix) In the case of a forced outage of a unit, the State Load Despatch Centre shall revise the schedules on the basis of revised declared capability. The revised declared capability and the revised schedules shall be effective from the fourth time block, counting the time block in which revision is advised by the integrated utility or generating company to be the first one.

(x) In the case of any bottle neck in evacuation of power due to any constraint, outage, failure or limitation the transmission system, associated switchyard and sub – station owned by the State Transmission Utility or any other transmission licensee involved in intra–state transmission (as certified by the State Load despatch Centre) necessitating in reduced generation, the SLDC shall revise the schedules which shall become effective from the 4th time block, counting the time block in which the bottleneck in evacuation of power has taken place to be the first one. During the first, second and third time blocks of such an event, the scheduled generation of the generating station shall be deemed to have been revised to be equal to actual generation and the scheduled drawals of beneficiaries shall be deemed to have been revised to be equal to their actual drawls.

(xi) In the case of grid disturbance, the scheduled generation of all the generating stations and scheduled drawls of all the beneficiaries shall be deemed to have been revised to be equal to their actual generation / drawal for all the time blocks affected by the grid disturbance.

Certification of grid disturbance and its duration shall be done by the SLDC.

(xii) Revision of declared capability by the integrated utility / generating company / companies and requisition by beneficiary(ies) for the remaining period of the day shall also be permitted with advance notice.

Revised schedules / declared capability in such cases shall become effective from the 6th block, counting the time block in which request for revision has been received in the SLDC to be the first one.

(xiii) If, at any point of time, the SLDC observes that there is need for revision of the schedules in the interest of better system operation, it may do so on its own and in such cases, the revised schedules shall come into effect from the fourth time block, counting the time block in which the revised schedule is issued by the SLDC to be the first one.

(xiv) Generation schedules and drawal schedules issued / revised by the SLDC shall become effective from the designated time block.

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

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

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

45. Demonstration of Declared Capability

(1)The integrated utility/generating company shall demonstrate the declared capability of its generating station as and when asked by the SLDC. In the event of the generating company failing to do so, the capacity charges due to the integrated utility/generating company shall be reduced as a measure of penalty.

(2)The quantum of penalty for the first mis-declaration for any duration / block in a day shall be the charges corresponding to two days fixed charges.

For the second mis-declaration, the penalty shall be equivalent to fixed charges for four days and for subsequent mis-declarations, the penalty shall be multiplied in geometrical progression.

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

46. Metering and Accounting

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

The SLDC shall in turn forward necessary data / schedules to the regional level in line with the regulations framed by Central Electricity Regulatory

Commission. UI accounting procedures within the state shall be governed by the orders of the Commission.

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

47. Billing and payment of capacity charges

The billing and payment of capacity charges shall be done on a monthly basis as under:

(i) Each beneficiary shall pay the capacity charges in proportion to its percentage share in installed capacity of the generating station.

(1) The beneficiaries could be the various distribution licensees or the Trading Companies.

(2) If the capacity remains unutilised during day-to-day operation, the SLDC shall advise all beneficiaries in the region or other SLDCs so that such capacity may be utilized through bilateral arrangements either with or the concerned generating company or beneficiary(ies) under intimation to the SLDC.

(3) The information regarding un-requisitioned capacity shall be made available by the SLDC through their respective websites.

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

(a)Total capacity charges payable to the generating company for

1st Month	(1XACC 1) ÷12
2nd Month	(2XACC 2 - 1XACC 1) ÷12
3rd Month	(3XACC 3 - 2XACC 2) ÷12
4th Month	(4XACC 4 -3XACC 3) ÷12
5th Month	(5XACC 5 - 4XACC 4) ÷12
6th Month	(6XACC 6 - 5XACC 5) ÷12
7th Month	(7XACC 7 - 6XACC 6) ÷12
8th Month	(8XACC 8 - 7XACC 7) ÷12

9th Month	(9XACC 9 - 8XACC 8) ÷12
10th Month	(10XACC 10 - 9XACC 9) ÷12
11th Month	(11XACC 11 - 10XACC 10) ÷12
12th Month	(12XACC 12 - 11XACC 11) ÷12

Note: ACC1 to ACC 12 are the amounts of Annual capacity charges corresponding to availability for the cumulative period upto the end of 1st to 12th Months each respectively.

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

1st Month	[ACC 1X WB 1] ÷1200
2nd Month	[2 ACC 2 X WB 2 – 1 XACC 1 X WB 1] ÷ 1200
3rd Month	[3 ACC 3 X WB 3 – 2 XACC 2 X WB 2] ÷ 1200
4th Month	[4 ACC 4 X WB 4 – 3 XACC 3 X WB 3]÷ 1200
5th Month	[5 ACC 5 X WB 5 – 4 XACC 4 X WB 4] ÷1200
6th Month	[6 ACC 6 X WB 6 – 5 XACC 5 X WB 5]÷]1200
7th Month	[7 ACC 7 X WB 7 – 6 XACC 6 X WB 6] ÷ 1200
8th Month	[8 ACC 8 X WB 8 – 7 XACC 7 X WB 7]÷ 1200
9th Month	[9 ACC 9 X WB 9 – 8 XACC 8 X WB 8]÷ 1200
10th Month	[10 ACC 10 X WB 10 – 1 ACC 9 X WB 9] ÷ 1200
11th Month	[11 ACC 11 X WB 11– 10 ACC 10 X WB 10] ÷ 1200
12th Month	12 [ACC 12 X WB 12 – 11 ACC 1 X WB 11] ÷ 1200

Note: WB1 to WB12 are the weighted average of percentage allocated capacity share of the beneficiary during the cumulative period upto 1st to 12 months each respectively.

Chapter 3
Hydro Power Generating Station

48. Definitions

Unless the context otherwise requires for the purpose of this chapter:

(i) **'Additional Capitalisation'** means the capital expenditure actually incurred after the date of commercial operation of the station and admitted by the Commission after prudent check subject to provisions of Regulation 51'.

(ii) **'Auxiliary Energy Consumption'** in relation to a period means the quantum of energy consumed by auxiliary equipment of the generating station and shall be expressed at the integrated utility's or generating company's terminals of all units of the generation station;

(iii) **'Beneficiary'** in relation to generating station means the person buying power generated at such generating station on payment of Annual Fixed Charges.

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

(v) **'Cut off date'** means the date of first financial year closing after one year of the date of commercial operation of the generating station.

(vi) '**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 here-under:

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

Daily Capacity Index shall be limited to 100%.

(vii) **'Date of commercial operation'** or 'COD' in relation to a unit means the date declared by the integrated utility / generating station after demonstrating the 'Maximum Continuous Rating (MCR) or installed capacity through a successful trial run after notice to the beneficiaries and in relation to the generating station, the date of commercial operation of the last unit or block of the generating station.

(viii) **'Declared Capacity or DC' means :**

(a) for run-of – river power station with pondage and storage type power stations, the declared capacity means the ex-bus capacity

in MW expected to be available from the generating station during the peak hours of the next day, as declared by the integrated utility / generating company, taking into account the availability of water, optimum use of water and the availability of machines.

For this purpose, the peak hours shall not be less than 3 hours within a 24 hour period; and

(b) In the case of purely run-of-river power stations, the 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;

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

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

(xi) **'Existing generating station'** means a generating station declared under commercial operation from the date prior to the notified date of tariff Regulations by the Commission as per regulation 1(2).

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

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

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

(a) Run–of–river power stations with pondage and storage type power stations; The maximum capacity in MW, the generating station can generate with all generating units running, under the prevailing conditions of water levels and flows, over the peak hours of the next day.

Explanation: The peak hours for the purpose shall not be less than 3 hours within a 24 hour period.

(b) Purely run-of-river power stations: The generating station can generate maximum capacity in MW, with all units running, under the prevailing conditions of water levels and flows over the next day.

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

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

(xviii)**'Operation and Maintenance Expenses'** or 'O&M Expenses' means the expenditure incurred on operation and maintenance of the generating station and includes expenditure on man-power, repairs, spares, consumables, utility expenses, insurance and overheads.

(xix) **'Original Project Cost'** means the actual expenditure incurred by the integrated utility or generating company as per original scope of the project upto the first financial closing after one year from the date of commercial operation of the last unit as admitted by the Commission for the determination of tariff.

(xx) **'Run-of-river power station with pondage'** means a hydro electric power station with sufficient pondage for meeting the diurnal variation of power demand;

(xxi) **'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;

(xxii)**Saleable Primary Energy** means the quantum of primary energy available for sale (ex-bus);

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

(xxiv)**'Saleable Secondary Energy '** means the quantum of secondary energy available for sale (ex-bus);

(xxv)'Scheduled Energy' means the quantum of energy to be generated at the generating station over a 24 hour period, as scheduled by the SLDC; **49. Norms of operation**

(1)Normative capacity index for recovery of full capacity charges:

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

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

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

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

(c)There shall be prorata recovery of capacity charges in case the generation station achieves capacity index below the prescribed normative levels. At zero capacity index, no capacity charges shall be payable to the generating station.

(2)Auxiliary Energy Consumption

(a)	Surface hydroelectric power generating station with rotating exciters mounted on generator shaft	0.2% of energy generated
(b)	Surface hydroelectric power generating station with static excitation system	0.5% of energy generated
(c)	Under ground hydro electric power generating station with rotating exciters mounted on the generator shaft	0.4% of energy generated
(d)	Under ground hydro electric power generating station with static excitation system	0.7% of energy generated

(3)Transmission losses

	From generation voltage to Transmission Voltage	0.5% of energy generated

50. Capital Cost

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

Provided :

(i)

where the Power Purchase Agreement (PPA) entered into between integrated utility / the generating company and the beneficiaries provides a ceiling of actual expenditure, the capital expenditure shall not exceed such a ceiling for determination of tariff.

(ii) in case of existing generating station, the capital cost admitted by the Commission prior to the notified date of tariff regulations by the Commission as per Regulation 1(2) shall form the basis for determination of tariff.

Note: The Commission shall scrutiny the project cost estimates limited to the reasonableness of the capital cost, financial plan, interest during construction, use of efficient technology and such other matters for the purpose of determination of tariffs.

51. Additional Capitalisation

(1)The following actual capital expenditure incurred within the original scope of work **afterthe date of commercial operation and upto the cut off** date may be admitted by the commission subject to prudent check:

(i) deferred liabilities;

(ii) works deferred for execution; (iii) procurement of initial capital spares within the original scope of work subject to the ceiling specified under Regulation 50

(iv) liabilities to meet award of arbitration or for compliance of the order or decree of a court of law and

(v) on account of change in law.

Provided that:

(i) the original scope of work along with the estimates of expenditure shall be submitted to the Commission along with the application for provisional tariff.

(ii) a list of deferred liabilities and works deferred for execution shall be submitted to the Commission along with the application for final tariff after the date of commercial operation of the generating station.

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

(i) deferred liabilities relating to works /services within the original scope of work

(ii) liabilities to meet award of arbitration or compliance of the order or decree of a court.

(iii) on account of change of law

(iv) any additional works/services which have become necessary for efficient and successful operation of the plant but not included in the original capital cost.

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

Note: The above list is illustrative but not exhaustive.

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

Note: (1) Any expenditure admitted on account of committed liabilities within the original scope of work and expenditure deferred on techno – economic grounds but falling within the scope of original work shall be serviced in the normative debt-equity ratio specified in Regulation 53.

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

(3) Any expenditure admitted by the Commission for determination of tariffs on renovation and modernisation and life extension shall be serviced on normative debt – equity ratio specified in Regulation 53.

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

52. Sale of Infirm Power

Any revenue earned by the integrated utility / 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 the primary energy rate of the generating station.

53. Debt equity ratio

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

Provided that

(i) in case of a generating station, the actual equity employed is less than 30%, the actual debt and equity employed shall be taken for determination of tariff

(ii) in case of existing projects the actual debt: equity ratio shall be used for tariff determination. However any expansion shall be governed by clause (1) above.

(2)The debt and equity amount arrived at in accordance with clause (1) shall be used for calculation of interest on loan, return on equity, Advance Against Depreciation and foreign exchange rate variation.

54. Computation of Annual Charges

The two-part tariff for sale of electricity from a hydro power generating station shall comprise of recovery of capacity charges and primary energy charges: (i) Capacity charges: The capacity charges shall be computed in accordance with the following formula:

Capacity charges = (Annual fixed charge – Primary Energy charge)

Note: Recovery through primary energy charge shall not be more than Annual Fixed Charge.

(ii) Annual Fixed Charges: Annual Fixed charges shall consist of;

(a)Interest on capital

(b)Depreciation, including Advance Against Depreciation

(c)Return on equity

(d)Operation and Maintenance expenses; and

(e)Interest on working capital

55. Computation of annual fixed charges

The annual fixed charges shall be computed on the following basis:

(1)Interest on capital

(i) Interest on loan capital shall be computed loanwise on the loans arrived at in manner indicated in Regulation 53.

(ii) In the case of existing projects, the actual debt equity ratio shall be used for tariff determination. However, any expansion shall be governed by Regulation 53.

(iii) The generating company / integrated utility shall make every effort to refinance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such refinancing shall be borne by the beneficiaries.

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

(v) In case of any dispute, any of the parties may approach the Commission with proper application. The beneficiaries shall not, however, withhold payment to the generating company / integrated utility during pendancy of the dispute, unless the Commission specifically directs such non-payment, relating to swapping of the loan.

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

(vii) The integrated utility or the generating company shall not make any profit on account of swapping of loan and interest thereon.

(viii) The integrated utility or the generating company, may at its descretion, swap loans having floating rate of interest with loans having fixed rate of interest or vice – versa at its own cost and gains or losses as a result of such swapping shall accrue to the utility / generating company.

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted whether on floating or fixed rate of interest.

(2)Depreciation including Advance Against Depreciation

(a)Depreciation

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

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

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

(iii)The residual value of the asset shall be considered as 10% and the depreciation shall be allowed upto a maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost for purposes of depreciation while computing 90% of the historical cost of the asset.

The historical capital cost for purposes of depreciation of the asset shall include Additional Capitalisation on account of Foreign Exchange Rate Variation as allowed by the Central Government / Central Electricity Regulatory Commission

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

(v)Depreciation shall be chargeable from the first year of operation of the asset. For part of the year, depreciation shall be charged on pro rata basis.

(b)Advance Against Depreciation (AAD)

In addition to allowable depreciation, the integrated utility / generating company shall be entitled to Advance Against Depreciation, computed in the manner detailed below:

AAD= Loan repayment amount as per Regulation 53 subject to a ceiling of $1/10^{th}$ of the loan amount as per Regulation 51 minus depreciation as per schedule.

Provided that:

(i) Advance Against Depreciation shall be allowed only if the cumulative repayment upto a particular year exceeds the cumulative depreciation upto that year.

(ii) Advance Against Depreciation in a year shall be restricted to the extent of depreciation between the cumulative repayment and cumulative depreciation upto that year.

All efforts shall be made for aligning the tenure of the long term debt with permissible rate of depreciation to reduce front loading of tariff through various mechanisms including resort to take out finances to elongate debt repayment period. In such a case there will be no need for any Advance Against Depreciation.

(3) Return on Equity

(a)The return on equity shall be computed on the equity base determined in accordance with Regulation 53 @ 14% per annum.

(b)In the case of existing projects, the actual debt equity shall be used for tariff determination. However, any expansion shall be governed by Regulation 53.

(c)Equity invested in foreign currency shall be allowed a return upto the prescribed limit in the same currency and the repayment on this account shall be made in Indian Rupee based on the exchange rate prevailing on the due date of billing.

(d)The premium raised by the integrated utility / generating company while issuing share capital and investment of internal resources created out of its free reserve, if any, for funding the project, shall also be reckoned as a paid up capital for the purpose of computing

return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station and forms part of approved financial package.

The definition of equity thus would involve all net worth deployed in the capital of the unit.

(4) Operation and Maintenance Expenses

(a) The operation and maintenance expenses, including insurance, for the existing Hydro electric generating stations which have been in operation for 5 years or more taking the base year as 2007-08, shall be arrived at on the basis of actual operation and maintenance expenses, for the year 2002-03 to 2006-07, based on the audited balance sheets, excluding the abnormal operation and maintenance expenses if any, after prudent check by the Commission.

The average of such normalized O&M expenses after prudent check, for the years 2001-02 to 2006-07 shall be escalated at the rate of 4% per annum to arrive at operation and maintenance expenses for the base year 2005-2006.

(b) In case of hydro electric stations, which have not been in existence for a period of 5 years, the O&M expenses shall be fixed at 1.5% of the capital cost as admitted by the Commission and shall be escalated at the rate of 4% per annum from the subsequent years to arrive at the O&M expenses for the base year. The base O&M expenses shall be further escalated at the rate of 4% per annum to arrive at the permissible O&M expenses for the relevant year(s).

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

(d) Operation & Maintenance costs include employee cost, R&M and A&G costs.

(5)Interest on Working Capital

(a) The working capital shall cover the following:-

(i) Operation and Maintenance expenses for one month;

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

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

(b) Rate of interest on working capital shall be the short-term prime lending rate of State Bank of India as on 1st April of the year in which the generation unit/station is declared under commercial operation. The interest on working capital shall be payable on normative basis notwithstanding that the integrated utility / generating company has not taken working capital loan from any outside agency.

56. Primary and Secondary Energy Charges

(1) Primary energy charge shall be worked out on the basis of paise per kWh/ rate on ex-bus energy scheduled to be sent out from the hydroelectric power generating station.

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

In case the primary energy charge recoverable by applying the above primary energy rate exceeds the annual fixed charge of a generating station, the primary energy rate for such generating station shall be calculated as follows:-

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

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

Secondary Energy Rate shall be equal to primary energy rate

Secondary Energy Charge = Saleable Secondary Energy X Secondary Energy Rate.

57. Incentive

(1) Incentive shall be payable in case of all generating stations including new generating stations in the first year of operation, when the capacity index (C1) exceeds 90% for purely run-of river power generating stations and 85% for run-of-river power station with pondage or storage type power generating stations and incentive shall accrue upto a maximum capacity index of 100%.

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

Incentive = 0.65 X Annual Fixed Charge X (CI_A –CI_N) / 100

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

Where CI_A is the capacity index achieved and CI_N is the normative capacity index whose values are 90% for purely rum-of-river hydro stations and 85% for pondage/storage type hydro generating stations.

(3) The incentives on account of capacity index and payment for secondary energy shall be payable on monthly basis, subject to cumulative adjustment in each month of the financial year, separately in respect of each item, and final adjustment shall be met at end of the financial year. (4) The total incentive payment calculated on annual basis shall be shared by the beneficiaries based on allocated capacity.

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

In case of Commissioning of hydro electric power generating station or part there-of ahead of schedule as set out in the first approval of the Central Government or the techno-

economic clearance of the Authority, as the case may be, the generating station shall become eligible for incentive for an amount equal to pro rata reduction in interest during construction, achieved on commissioning ahead of schedule. The incentive shall be recovered through tariff in twelve equal monthly instalments during the first year of operation of the generating station.

In case of delay in Commissioning, as set out in the first approval of the Central Government or the techno-economic clearance of the authority, as the case may be, interest during construction for the period of delay shall not be allowed to be capitalized for determination of tariff, unless the delay is an account of Force Majeure Event (s).

58. Deemed Generation

(1) In case of reduced generation due to reasons beyond the control of the integrated utility / generating company or on account of non-availability of transmission licensee's transmission lines or on receipt of backing down instructions from the SLDC resulting in spillage of water, the energy charges on account of such spillage among the beneficiaries shall be in proportion of their shares in saleable capacity of the generating station.

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

59. Unscheduled Interchange (UI)

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

Average frequency of time block (HZ)

Below	Not below	UI Rate (Paise / kWh)
-	50.50	0.0
50.50	50.48	6.0
50.48	50.46	12.0
49.84	49.82	204.0
49.82	49.80	210.0
49.80	49.78	219.0
49.78	49.76	228.0
49.04	49.02	561.0
49.02		570.0

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

Note: The above frequency range and UI rates are subject to change through a separate order by the Commission.

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

(ii) For any generation beyond the prescribed limits, the State Load Despatch Centre shall investigate so as to ensure that there is no gaming; and if gaming is observed by the SLDC, the corresponding

UI charges due to the generating station on account of such extra generation shall be reduced to zero and the amount shall be adjusted in UI account of the beneficiaries in the ratio of their capacity share in the generation station.

60. Rebate

(i) For payment of bills of capacity charges and energy charges

through a letter of credit on presentation, a rebate of 2% shall be allowed. If the payments are made by a mode other than through a letter of credit but within a period of one month of presentation of bills by the integrated utility / generating company, a rebate of 1% shall be allowed.

61. Late Payment Surcharge

In the case of payment of bills of capacity charges and energy charges by the beneficiary or beneficiaries is delayed beyond a period of one month from the date of billing, late payment surcharge at the rate of 1.25% per month or part thereof shall be levied by the generating company / integrated utility.

62. Scheduling

The methodology of scheduling and calculating capacity index shall be as follows:-

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

(2) Integrated utility or the generating company shall intimate the declared capacity (MW) for the next day, either as one figure for the whole or different figures for different periods of the day along with maximum available capacity (MW) and total energy (MWh) ex-bus to the SLDC.

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

(3) While making or revising its declaration of capability the integrate utility / generating company shall ensure that the declared capacity during peak hours is not less than that during non-peak hours. Exception to this rule shall be allowed in case of tripping/re-synchronization of units as a result of forced outage of units.

(4) Generation scheduling shall be done in accordance with the operating procedure as stipulated in the State grid code,

(5) Based on the declaration of the integrated utility / generating company, the SLDC shall communicate their shares to the beneficiaries out of which they shall give their requirements.

(6) Based on the requirements given by the beneficiaries and taking into account technical limitations on varying the generation and also taking into account transmission system constraints, if any, the SLDC shall prepare the economically optimal generation schedules and drawl schedules and communicate the same to the integrated utility / generating company and the beneficiaries.

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

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

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

(9) In the case of a forced outage of a unit, the State Load Despatch Centre shall revise the schedules on the basis of revised declared capability. The revised declared capability and the revised schedules shall be effective from the fourth time block, counting the time block in which revision is advised by the integrated utility / generating company to be the first one.

(10) In the case of any bottleneck in evacuation of power due to any constraint, outage, failure or limitation of transmission system, associated switchyard and sub – stations owned by the State Transmission Utility or any other transmission licensee involved in inter – state transmission (as certified by the State Load despatch Centre) necessitating reduced generation, the SLDC shall revise the schedules which shall become effective from the 4th time block, counting the time block in which the bottleneck in evacuation of power has taken place to be the first one. During the first, second and third time blocks of such an event, the scheduled generation of the integrated utility/generating station shall be deemed to have been revised to be equal to actual

generation and the scheduled drawls of beneficiaries shall be deemed to have been revised to be equal to their actual drawls.

(11) In the case of grid disturbance, the scheduled generation of all the generating stations and scheduled drawls of all the beneficiaries shall be

deemed to have been revised to be equal to their actual generation/drawal for all the time blocks affected by the grid disturbance. Certification of grid disturbance and its duration shall be done by the SLDC.

(12) Revision of declared capability by the integrated utility/generating company/companies and requisition by beneficiary(ies) for the remaining period of the day shall be permitted with advance notice. Revised schedules / declared capability in such cases shall become effective from the 6th block, counting the time block in which request for revision has been received in the SLDC to be the first one.

(13) If, at any point of time, the SLDC observes that there is need for revision of the schedules in the interest of better system operation, it may do so on its own and in such cases, the revised schedules shall come into effect from the fourth time block, counting the time block in which the revised schedule is issued by the SLDC to be the first one.

(14) Generation schedules and drawal schedules issued / revised by the SLDC shall become effective from the designated time block irrespective of communication delay.

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

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

(17) Purely run-of-river power station: Since variations of generation in such stations may lead to slippage, these shall be treated as must run stations. The maximum available

capacity, duly taking into account the overload capability, must be equal to or greater than that required to make full use of the available water.

(18) Run – of – river power station with pondage and storage type power stations: These hydro stations are designed to operate during peak hours to meet system peak demand. Maximum available capacity of the station

declared for the day shall be equal to the installed capacity, including overload capacity, minus auxiliary consumption and transmission losses, corrected for the reservoir level. The State Load Despatch centre shall ensure that generation schedules of such type of stations are prepared and despatched to the stations for optimum utilisation of available hydro energy except in the event of specific system requirements/constraints.

63. Demonstration of Declared capability

(1) The integrated utility / generating company may be required to demonstrate the declared capacity of its generating station as and when asked by the SLDC of the State in which the generating station is situated. In the event of the integrated utility / generating company failing to demonstrate the declared capacity, within the tolerance as specified by the State Transmission Utility, the capability charges due to the generating station shall be reduced as a measure of penalty.

(2) The quantum of penalty for the first mis-declaration for any duration or block in a day shall be the charges corresponding for two days fixed charges. For the second mis-declaration the penalty shall be fixed charges for four days and for subsequent mis-declarations, the penalty shall be multuplied in geometrical progression.

(3) The operating log books of the generating station shall be made available for review by the SLDC. These books shall contain record of machine operation and maintenance, reservoir level and spillway gate operation etc.

64. Metering and Accounting

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

The SLDC shall also in turn forward necessary data / schedules to the regional level in line with the regulations framed by Central Electricity Regulatory Commission. UI accounting procedures shall be in accordance with the orders of the Commission.

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

65. Billing and payment of capacity charges

Billing and payment of capacity charges shall be done on a monthly basis as follows:

(1) (i) Each beneficiary shall pay the capacity charges in proportion to its percentage share in total saleable capacity of the generating station.

The beneficiaries could be various distribution licensees or trading companies.

(ii) If any capacity remains un-requisitioned during day to day operation, the SLDC shall advise all the beneficiaries in the region and other SLDCs so that such capacity may be requisitioned through bilateral arrangements either with the concerned integrated utility / generating company or the concerned beneficiary(ies) under intimation to SLDC.

The information regarding un-requisitioned capacity shall also be made available by the SLDCs through their respective websites.

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

ACC 1	=	= AFC – (SPE1+DE 2nd to 12 months) X Primary Energy Rate
ACC 2	=	= AFC – (SPE2+DE 3rd to 12 months) X Primary Energy Rate
ACC 3	=	= AFC – (SPE3+DE 4thto 12 months) X Primary Energy Rate
ACC 4	=	= AFC – (SPE4+DE 5thto 12 months) X Primary Energy Rate
ACC 5	=	= AFC – (SPE5+DE 6thto 12 months) X Primary Energy Rate
ACC 6	=	= AFC – (SPE6+DE 7thto 12 months) X Primary Energy Rate
ACC 7	=	= AFC – (SPE7+DE 8thto 12 months) X Primary Energy Rate
ACC 8	=	= AFC – (SPE8+DE 9thto 12 months) X Primary Energy Rate
ACC 9	=	AFC – (SPE9+DE 10th to 12 months) X Primary Energy Rate
ACC 10	=	AFC – (SPE10+DE 11th to 12 months)X Primary Energy Rate
ACC 11	=	= AFC – (SPE11+DE 12th month) X Primary Energy Rate
ACC 12	=	= (AFC – SPE 12) X Primary Energy Rate

Where (1) AFC = Annual Fixed Charge

(ii) ACC1, ACC2, ACC3, ACC4, ACC 5, ACC 6, ACC 7, ACC 8, ACC 9, ACC 10, ACC 11 and ACC 12 are the amount of Annual Capacity Charge for the cumulative period upto end of 1st, 2nd, 3rd, …….. to 12th months of the year respectively.

(iii) SPE, SPE2, SPE3 …… SPE12 are the ex-bus primary energy values upto 1st, 2nd, 3rd ……12th months of the years respectively.

$$CC1 = ACC1 \times \frac{DE1}{DE}$$

$$CC2 = ACC2 \times \frac{DE2}{DE}$$

$$CC3 = ACC3 \times \frac{DE3}{DE}$$

$$CC4 = ACC4 \times \frac{DE4}{DE}$$

$$CC5 = ACC5 \times \frac{DE5}{DE}$$

$$CC6 = ACC6 \times \frac{DE6}{DE}$$

$$CC7 = ACC7 \times \frac{DE7}{DE}$$

$$CC8 = ACC8 \times \frac{DE8}{DE}$$

$$CC9 = ACC9 \times \frac{DE9}{DE}$$

$$CC10 = ACC10 \times \frac{DE10}{DE}$$

$$CC11 = ACC11 \times \frac{DE11}{DE}$$

$$CC12 = ACC12 \times \frac{DE12}{DE}$$

Where,

(i) CC1, CC2, CC3 …… CC12 is the monthly capacity charge upto 1st, 2nd, 3rd …… 12th months of the year respectively.

(ii) DE = Annual Design Energy

(iii) DE1, DE2, DE3 ….. DE12 are the ex-bus design energy values upto 1st, 2nd, 3rd ….. 12th month of the year respectively.

(3) Total capacity charges payable to the integrated utility / generating company for the:

1st Month	=	(CC1)
2nd Month	=	(CC 2 – CC 1)
3rd Month	=	(CC 3 – CC 2)
4th Month	=	(CC 4 – CC 3)
5th Month	=	(CC 5 – CC 4)
6th Month	=	(CC 6 – CC 5)
7th Month	=	(CC 7 – CC 6)
8th Month	=	(CC 8 – CC 7)
9th Month	=	(CC 9 – CC 8)
10th Month	=	(CC 10 – CC 9)
11th Month	=	(CC 11 – CC 10)
12th Month	=	(CC 12 – CC 11)

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

1st Month	=	(CC1 X WB 1) ÷100
2nd Month	=	(CC 2 X WB 2 – CC 1X WB 1) ÷100
3rd Month	=	(CC 3 X WB 3 – CC 2X WB 2) ÷100
4th Month	=	(CC 4 X WB 4 – CC 3X WB 3) ÷100
5th Month	=	(CC 5 X WB 5 – CC 4X WB 4) ÷100
6th Month	=	(CC 6 X WB 6 – CC 5X WB 5) ÷100
7th Month	=	(CC 7 X WB 7 – CC 6X WB 6) ÷100
8th Month	=	(CC 8 X WB 8 – CC 7X WB 7) ÷100
9th Month	=	(CC 9 X WB 9 – CC 8X WB 8) ÷100
10th Month	=	(CC 10 X WB 10 – CC 9X WB 9) ÷100
11th Month	=	(CC 11 X WB 11 – CC 10X WB 10) ÷100
12th Month	=	(CC 12 X WB 12 – CC 11X WB 11) ÷100

Where WB1, WB 2, WB 3, …… WB 12 are the weighted average of percentage allocated capacity share of the beneficiary during the cumulative period upto 1st, 2nd, 3rd …….. and 12th month respectively.

Chapter 4
Intra State Transmission

66. Definitions

Unless context otherwise requires, for the purpose of this chapter

(i) **'Additional Capitalisation'** means the capital expenditure actually incurred after the date of commercial operation of the transmission system and admitted by the Commission after prudent check subject to Regulation 70 provided herein after.

(ii) **'Allotted Transmission Capacity'** means the transmission of power in MW between specified point(s) of injection and point (s) of drawal allowed to a long – term customer on the intra – state transmission system under normal circumstances and the expression "allotment of transmission capacity" shall be construed accordingly.

Allotted Transmission capacity to long – term transmission customer shall be the sum of the generating capacities allocated from generating station and the contracted power, if any.

(iii) **Availability** in relation to a transmission system for a given period means the time in hours during which period the transmission system is capable to transmit electricity at its rated voltage and shall be expressed in percentage of total hours in the given period and shall be calculated as per the procedure prescribed by the Central Electricity Regulatory Commission.

(iv) **'Contracted Power'** means the power in MW which the transmission licensee has agreed to carry or is required to carry as per allocation from the generating stations or the long-term agreement between the importing and exporting utility.

(v) **'Cut off date**' means the date of first financial year closing after one year of the date of commercial operation of the Transmission System(Lines / Sub Stations)

(vi) **'Date of Commercial operation' or 'COD'** means the date of charging the project or part there-of to its rated voltage level or seven days after the date on which it is declared ready for charging by the transmission licensee but could not be charged for reasons not attributed to the transmission licensee, its suppliers or contractors.

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

(vii) **'Existing Project'** means transmission project declared under commercial operation from a date prior to notified date of these tariff regulations by the Commission as per Regulation 1(2).

(viii) **'Implementation Agreement'** means an agreement, contract or memorandum of understanding or any such covenant, entered into between the transmission licensee and the long – term transmission customer(s) for construction of the project.

(ix) **'Long term Transmission Customer'** means a person availing or intending to avail access to intra – state transmission system for a period of twenty – five years or more.

(x) **'Operation and Maintenance expenses' or 'O&M expenses'** means the expenditure incurred on operation and maintenance of the transmission system including part thereof, and includes the expenditure on man- power, repairs, spares, consumables, insurance and overheads.

(xi) **'Original Project Cost'** means the actual expenditure incurred by the transmission licensee, as per the original scope of project upto first financial year closing after one year from the date of commercial operation of the last element, as admitted by the Commission, for the purpose of tariff. In the case of existing stations of bundled / integrated utilities, it will mean the asset value as specified in the opening balance sheet of the successor entity.

(xii) **Project'** includes transmission system comprising of specified transmission lines, sub - stations and associated equipment.

(xiii) **'Rated Voltage'** means the manufacturer's design voltage at which the transmission system is designed to operate or such lower voltage at which the line is charged, for the time being, in consultation with the long – term transmission customer(s).

(xiv) **'Short – term Transmission Customer'** means a transmission customer other than the long – term transmission customer.

(xv) **'Transmission Service Agreement'** means an agreement, contract, memorandum of understanding or any such covenant, entered into between the transmission licensee and the long – term transmission customer for the operational phase of the project.

(xvi) **'Transmission Licensee'** means a person who has been granted licence for intra state transmission of electricity and includes any person deemed to be a transmission licensee for intra – state transmission of electricity.

(xvii)**Transmission System** means a line with associated sub stations or a group of lines inter – connected together along with associated sub -stations and the term includes equipment associated with transmission lines and sub-stations.

67. Charges for Auxiliary Energy Consumption in the Sub - Station

The charges for auxiliary energy consumption in the Air conditioned Sub Stations for the purpose of air – conditioning, lighting, technical consumption etc shall be borne by the transmission licensee as part of normative operation and maintenance expenses.

68. Target Availability for recovery of full transmission charges

(i)	AC System	98%
(ii)	HVDC System	95%

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

69. Capital Cost:

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

(2) Where the implementation agreement or the transmission service agreement entered into between the transmission licensee and the long – term transmission customer provides a ceiling on actual capital expenditure,

the capital expenditure for the purpose of determination of tariff shall be limited to such ceiling.

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

Note: The Commission shall scrutinise the project cost estimates. Such scrutiny shall be limited to the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology and such other matters as the Commission may deem necessary for determination of tariff.

70. Additional Capitalisation:

(1)The following capital expenditure which is within the original scope of work and actually incurred after the date of commercial operation and upto the cut-off date may be admitted by the Commission, subject to prudent check: (i) deferred liabilities

(ii)

works deferred for execution (iii) procurement of initial capital spares covered in the original scope of works subject to the ceiling norm specified under regulation 69

(iv) liabilities in connection with implementation of award of arbitration

or compliance of the order or decree of a court, and

(v)

on account of change in law **Note**: (a) original scope of work along with estimates of expenditure shall be submitted to the Commission along with application for provisional tariff.

(b) a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for determination of final tariff after the date of commercial operation of the transmission system.

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

(i) deferred liabilities relating to work / services within the original scope of work

(ii) liabilities in connection with implementation of award of arbitration or compliance of an order or decree of a court

(iii) on account of a change in law, and

(iv) any additional works / services which have become necessary for efficient and successful operation of the project, but not included in the original project cost.

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

Note: The list of items is illustrative but not exhaustive.

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

Note:

(1)Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt equity ratio specified in Regulation 71.

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

(3)Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced on normative debt – equity ratio specified in Regulation 71.

(4)Any expenditure admitted by the Commission for determination of tariff on renovation and modernisation or life extension shall be serviced on normative debt - equity ratio specified in Regulation 71 after writing off the original amount of the replaced asset from the original capital cost.

71. Debt – Equity Ratio

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

Provided that

(i) in case of a project, if the actual equity employed is less than 30%, the actual debt and equity employed shall be taken for determination of tariff

(ii) in case of existing projects the actual debt: equity ratio shall be used for tariff determination. However any expansion shall be governed by clause (1) above.

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

72. Transmission Charges:

Annual Transmission charges shall consist the following:

(a)Interest on loan capital

(b)Depreciation, including Advance Against Depreciation

(c)Return on equity

(d)Operation and Maintenance expenses(inclusive of Employee cost and Administration and General expenses), and

(e)Interest on working capital

73. Computation of annual transmission charges

The annual transmission charges shall be computed on the following basis: **(1)Interest on loan capital**

(a)Interest on loan capital shall be computed loan – wise, on the loans arrived at in the manner indicated in Regulation 71.

(b)In the case of existing projects, the actual debt-equity shall be used for tariff determination and any expansion thereto shall be governed as per Regulation 71.

(c)The transmission licensee shall make every effort to refinance the loan as long as it results in net benefit to the long-term transmission customers.

The costs associated with such refinancing shall be borne by the long-term transmission customers.

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

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

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

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

(h)The Transmission licensee, at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest or vice – versa at its own cost and gains or losses as a result of such swapping shall accrue to the utility / generating company.

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted whether on floating or fixed rate of interest.

(2)Depreciation including Advance Against Depreciation

(a) Depreciation

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

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

(ii) depreciation shall be calculated annually, based on the straight-line method over the useful life of the asset and at rates prescribed by the Central Electricity Regulatory Commission, from time to time as given in Annexure – 'A'.

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

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

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

(b) Advance Against Depreciation

(i) In addition to permissible depreciation, the transmission licensee shall be eligible to Advance Against Depreciation computed in a manner as indicated below:

AAD= Loan repayment amount as per Regulation 73(1) subject to a ceiling of 1/10th of the loan amount as per Regulation 71 minus depreciation as per schedule.

(ii) The Advance Against Depreciation shall be allowed only if the cumulative repayment upto a particular year exceeds the cumulative depreciation upto that year.

(iii) The Advance Against Depreciation in a year shall be restricted to the extent of the difference between cumulative payment and cumulative depreciation upto that year.

(iv) All efforts shall be made for aligning the tenure of the long term debit with permissible rate of depreciation to reduce front loading of tariff through various mechanisms including resort to take out finance to elongate debt repayment period so that there will not be any need for advance against depreciation.

(c) Return on equity

3[(i) Return on equity shall be computed on the equity base determined in accordance with Regulation 71 and shall be @15.5% for the projects which are commissioned on and after 01.04.2015.

Extra 0.5% return on equity for timely completion and commercial operation at projects commissioned within the time schedule as per the Appendix-C(1). In case the project is not completed and does not start commercial operation within the schedule time frame any extra cost incurred on account of the delay will be borne by the petitioner and will not be passed on in the tariff.]

(ii)Equity invested in foreign currency shall be allowed a return upto a prescribed limit in the same currency and the payment on this account shall be made in Indian Rupee based on the exchange rate prevailing on the due date of billing.

3. Substituted Regulation 73(2)(c)(i) by the BERC (Terms and Conditions for Determination of Tariff) [2nd Amendment] Regulations, 2014 vide Bihar Gazette No. 324 dated 27th March, 2014 (w.e.f. 27.03.2014)

Explanation:

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

(3)Operation and Maintenance Expenses

Norms for operation and maintenance expenses per ckt.km and per bay shall be as under:

(a)The Commission shall, for the purpose of fixing normative rates for operation & maintenance expenses, study the O&M expenses incurred over the last 4 to 5 years and fix appropriate rates per CKt - km of transmission line and per bay. The norms so fixed for 2008-09 shall be escalated at 4% per annum.

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

4[(c)**Reimbursement of Application fee, Publication expenses and Annual License fee:**

The application fee, publication expenses and license fee shall be reimbursed after prudence check and examination at the time of determination of tariff.]

(4)Interest on working capital

(i)

Working capital shall cover the following: (a)Operation and maintenance expenses for one month

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

(c)Receivables equivalent to two months of transmission charges calculated on target availability level.

4. Added at the end of Regulation 73(3)(b) by the BERC (Terms and Conditions for Determination of Tariff) [2nd Amendment] Regulations, 2014 vide Bihar Gazette No. 324 dated 27th March, 2014 (w.e.f. 27.03.2014)

6[(ii) Rate of interest on working capital will be computed at 350 basis point over and above the base rate. The interest on working capital shall be payable on normative basis notwithstanding that the transmission licensee may not have taken working capital loan from any outside agency or taken at different rates and amounts.]

74.

Payment of Transmission Charges Full annual transmission charges shall be recoverable at the target availability stipulated in Regulation 68. Payment of transmission charges below the target availability level shall be on pro rata basis. The transmission charges shall be calculated on monthly basis.

75. Sharing of charges for intra – state assets

In case of more than one long-term transmission customer of the State Transmission System, the monthly transmission charges leviable on each long- term transmission customer shall be computed as per the following formula:

$$\sum_{i=1}^{12} (Tci) - TRSC \times \frac{CL}{SCL}$$

where TCi = Annual Transmission charges for the i th project in the State computed in accordance with Regulation 73.

n = Number of projects in the region

TRSC = Total recovery of transmission charges for the month from short – term transmission customers for the regional transmission system in accordance with the directions of the Central Electricity Regulatory Commission (Open Access inter-state Transmission Regulations, 2004).

CL = Allotted Transmission capacity to long-term transmission customer.

SCL= Sum of Allotted Transmission Capacities to all the long – term transmission customers of the State Transmission System.

76. Incentive

(1)The transmission licensee shall be entitled to incentive @ 1% of equity for each

percentage point of increase in annual availability beyond the target availability prescribed under Regulation 68 in accordance with the following formula:

Incentive = Equity X (Annual availability achieved – target availability)÷ 100

5. Substituted Regulation 73(4)(ii) by the BERC (Terms and Conditions for Determination of Tariff) [2nd Amendment] Regulations, 2014 vide Bihar Gazette No. 324 dated 27th March, 2014 (w.e.f. 27.03.2014)

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

77. Rebate

For payment of bills of transmission charges through letter of credit on presentation, a rebate of 2% shall be allowed. Where payments are made subsequently, through opening of letter of credit or otherwise, but within a period of one month of presentation of bills by the transmission licensee, a rebate of 1% shall be allowed.

78. Late payment surcharge

In case the payment of bills of capacity charges and energy charges by beneficiary (ies) is delayed beyond a period of one month from the date of billing, late payment surcharge at the rate of 1.25% per month shall be levied.

****[**79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92 & 93 **] :-** repealed.

By order of the Bihar Electricity Regulatory Commission
Sd/-
Secretary

**** Regulations 79 to 93 of Chapter 5 have been repealed and a new Regulations BERC (Multi Year Distribution Tariff) 2015 have been notified separately and published in Bihar Gazette vide No. 1046 dated 15th September, 2015 (w.e.f. 15.09.2015)**

6[Schedule

(under Regulation 21(1)

FUEL AND POWER PURCHASE COST ADJUSTMENT (FPPCA) FORMULA

The amount of Fuel and Power Purchase Cost Adjustment (FPPCA) charges shall be computed as under:-

$$\text{FPPCA (Paise / kWh)} = \frac{Qc(Rc_2 - Rc_1) + Qo(Ro_2 - Ro_1) + Qpp(Rpp_2 - Rpp_1) + Vz + A}{(Qpg_1 + Qpp_1 + Qpp_2) \times \left(\frac{L\ 1}{} - 100\right)} \times 100$$

Where,

Qc	=	Quantity of coal consumed during the adjustment period in Metric Tons (MT)
	=	(SHR x QPg) (1+TSL)x1000 / GCV, or actual whichever is less
Rc_1	=	Weighted average base rate of coal supplied ex-power station coal yard as approved by the Commission for the adjustment period in Rs. / MT
Rc_2	=	Weighted average actual rate of the coal supplied ex-power station coal yard for the adjustment period in Rs. / MT
Qo	=	Actual Quantity of oil (in KL) consumed during the adjustment period or normative oil consumption as per Tariff order whichever is less.
Ro_1	=	Weighted average base rate of oil ex-power station (Rs./KL) approved by the Commission for the adjustment period.
Ro_2	=	Weighted average actual rate of oil ex-power station supplied (Rs. / KL) during the adjustment period.

Qpp = Total power purchased from different sources (kWh) = Qpp_2+Qpp_3 Qpp_3 in kWh

Qpp_1 = $\frac{}{1- TL}$

TL = Transmission loss (CTU) (in percentage terms).

Qpp_2 = Power purchase from sources with delivery point within the state transmission or distribution system (in kWh)

Qpp_3 = Power purchase from sources on which CTU transmission loss is applicable (in kWh)

Rpp_1 = Average rate of power purchase as approved by the Commission (Rs. / kWh)

Rpp_2 = Average rate of power purchased during the adjustment period (Rs. / kWh)

Qpg = Own power generation (kWh)

6. Appended under Regulation 21(1) by the BERC (Terms and Conditions for Determination of (w.e.f. 03.09.2012)

Qpg_1 = Own power generation (kWh) at generator terminal – approved auxiliary consumption

L = Percentage T&D loss as approved by the Commission or actual, whichever is lower.

SHR = Station Heat Rate as approved by the Commission (Kcal / kWh)

TSL = Percentage Transit and Stacking Loss as approved by the Commission. GCV = Weighted average gross calorific value of coal as fired basis during the adjustment period (Kcal / Kg).

VZ = Amount of variable charges on account of change of cost of unknown factors like water charges, taxes or any other unpredictable and unknown factors not envisaged at the time of tariff fixation subject to prior approval of the Commission (Rs.)

A = Adjustment, if any, to be made in the current period to account for any excess / shortfall in recovery of fuel or power purchase cost in the past adjustment period, subject to the approval of the Commission (Rs.)

If there are more than one power stations owned by the Licensee Qc, Rc_1, Rc_2, Qo, Ro_1, Ro_2, Qpg and Qpg_1 will be computed separately for each power station and sum of the increase/decrease of cost of all power stations shall be taken into consideration.

Terms and conditions for application of the FPPCA formula

1) The basic nature of FPPCA is 'adjustment' i.e. passing on the increase or decrease, as the case may be.

2) The operational parameters / norms fixed by the Commission in the Tariff Regulations / Tariff Order shall be the basis of calculating FPPCA charges.

3) The FPPCA will be recovered in every month in the form of an incremental energy charge (Rs/kwh) in proportion to the energy consumption and shall not exceed 10% of the approved avg. cost of supply in the Tariff order and balance amount, if any, in the FPPCA over and above ceiling shall be carried forward to be billed in subsequent month.

4) Incremental cost of power purchase due to deviation in respect of generation mix or power purchase at higher rate shall be allowed only if it is justified to the satisfaction of the Commission.

5) Any cost increase by the Licensee by way of penalty, interest due to delayed payments, etc. and due to operational inefficiencies shall not be allowed.

6) FPPCA charges shall be levied on all categories of consumers.

7) Distribution Licensee shall file detailed computation of actual fuel cost in Rs./kWh for each month for each of power stations of the state generators as

well as cost of power purchase (Fixed and Variable) from each source/station and a separate set of calculations with reference to permitted level of parameters.

8) The data in support of the FPPCA claims shall be duly authenticated by an officer of the licensee, not below the rank of Chief Engineer on an affidavit supported with the certified copy of energy bills of power purchase, transmission and RLDC charges, coal and its transportation cost, oil purchase bill and the quantity of coal and oil consumed during the month.

9) Levy of FPPCA charge will be allowed only when it is ten (10) paise or more per unit.

10) The incremental cost per kWh due to this FPPCA arrived for a month shall be recovered in the energy bill of the month subsequent to the order of the commission approving FPPCA with full details of rate and unit(s) on which FPPCA charges have been billed. The BSEB shall provide along with the proposal of FPPCA of a month, a compliance report of the previous order of the commission in respect of FPPCA.]

69

Appendix-A

Application form to be filled by _____

Thermal Power Generating Station for the year _____

70

Checklist of Forms and other information / documents for tariff filing for _____ Thermal Station

Name of Utility / Company

Form No.	Title of Tariff Filing Forms (Thermal)	Tick

FORM-5A	Abstract of Capital Cost Estimates and Schedule dates of Commissioning for the New projects	

FORM 17	Information to be submitted in respect of Fuel for Computation of Energy Charges	

FORM 18	Details of operation and maintenance expenses	
Other Information/ Documents		
Sl. No.	**Information/Document**	**Tick**
1	Certificate of incorporation, Certificate for Commencment of Business, Memorandum of Association, & Articles of Association (For New Station setup by a company making tariff application for the first time to BERC)	
2	Stationwise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on COD of the Station or the new station for the relevant years.	
3	Copies of relevant loan Agreements	
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	
7	Copies of the BPSA/PPA with the beneficiaries, if any	
8	Detailed note giving reasons for time and cost over run, if applicable.	
9	Any other relevant information, in any to be specified	

Note: Electronic copy in the form of CD/Floppy disc shall also be furnished.

FORM- 1

Summary of Tariff Proposal

Name of the Utility / Company: _____ Name of the Thermal Power Station : _____

Region **State** **District**

(Rs. in lakhs)

S.No.	Particulars		Existing 2005-06	2006-07	2007-08	2008-09	2009-10
1	2		3	4	5	6	7
1.1	Depreciation	FORM- 11					
1.2	Interest on Loan	FORM- 13A					
1.3	Return on Equity[1]						
1.4	Advance against Depreciation	FORM- 14					
1.5	Interest on Working Capital	FORM- 15					
1.6	O & M Expenses						
	Total						
2.Calculation of Rate of Energy Charge(Rs./kWh)[1]							
			During Stablisation		**After Stablisation**		
2.1	Rate of Energy Charge from Primary Fuel (REC)p[2]						
2.2	Rate of Energy Charge from Secondary Fuel (REC)						
2.3	Rate of Energy Charge ex-bus(REC)[3A,3B,3C]						

[1] Details of calculations to be furnished.

[2] If multifuel is used simultaneously, give 2.1 in respect of every fuel individually.

[3A] The rate of energy charge shall be computed for open cycle operation and combined cycle operation separatly in case of gas/liquid fuel fired plants.

[3B] The total energy charge shall be worked out based on ex-bus energy scheduled to be sent out in case of plants covered by ABT, and ex-bus energy sent out in case of plants not covered by ABT, as the case may be.

[3C] Any escalation in fuel cost to be considered for subsequent years or FPA to take care of the escalation.

Applicant

FORM-2 Plant Characteristics

Name of the Utility / Company: _____

Name of the Thermal Power Station: _____

Basic characteristics of the plant[1]

Special Features of the Plant

m

Site Specific Features[2] _____

Special Technological Features[3] _____

Environmental Regulation related features[4]

Any other special features: _____

Fuel Details[5]	Primary Fuel			Secondary Fuel		Alternate Fuels	
Details	**Module number or Unit number**						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	& so on
Installed Capacity (IC)							
Date of Commercial Operation (COD)							
Type of cooling system[6]							
Type of Boiler Feed Pump[7]							

[1] Describe the basic characteristics of the plant e.g. in the case of a coal based plant whehter it is a conventional steam generator or circulating fludized bed combustion generator or sub-critical one 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] Any Special Technological feature like Advanced class FA technology in Gas Turbines, etc. [4] Environmental regulation related features like FGD, ESP etc.

[5] Coal or natural gas or naptha or lignite etc.

[6] Closed circuit cooling, once through cooling, sea cooling etc.

[7] Motor driven, Steam turbine driven etc.

Applicant

Normative paramete rs to be con sidered for tariff c omputations **FORM-3**

Name of the Utility / Company : _____ _____ _____

Name of the Thermal Power Station:___ _____ _____

Particulars	Unit	Year Ending March				
		As Existing	As Notified by CERC			
		2005-06	2006-07	2007-08	2008-09	2009-10
(1)		(2)	(3)	(4)	(5)	(6)
Rate of Return on Equity	%					
Target Availability	%					
Target PLF	%					
Auxiliary Energy Consumption	%					
Gross Station Heat Rate	kCal/kWh					
Specific Fuel Oil Consumption	ml/kWh					
O&M Cost	Rs.Lakh/MW					
Cost of Fuel for WC	in Months					
Primary Fuel Stock for WC	in Months					
Secondary Fuel Oil or Secondary / Alternate liquid fuel stock for WC	in Months					
Spare stock as % of Plant & Equipment Cost on 1.4_____ for WC	%					
Recievables for WC	in Months					
Prime lending Rate of SBI as on _____.	%					
Incentive Rate	Paise / kWh					

Applicant

FORM- 4

Details of Foreign loans

(Details in respect of loans applicable to the project under consideration)

Name of the Utility / Company _____

Name of the Thermal Power Station _____

Exchange Rate at COD _____

Exchange Rate as on 31.03. _____

(Amount in lakhs)

Financial Year (Starting from COD)	**Year 1**				**Year 2**			
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs.)	Date	Amount (Foreign Currency)	Exchange Rate	
Currency1[1]								
At the date of Drawl[2]								

Scheduled payment date of interest							
At the end of Financial year							
Currency2[1]							
At the date of Drawl[2]							

Scheduled payment date of interest							
At the end of Financial year							
Currency3[1] & so on							
At the date of Drawl[2]							

Scheduled payment date of interest							
At the end of Financial year							

1 Name of the currency to be mentioned e.g. US $, DM, etc. etc.

2 In case of more than one drawl during the year, Exchange rate and the date of each drawl to be given.

Applicant

FORM-5

Abstract of Admitted Capital Cost for the existing Project

Name of the Utility / Company : _____

Name of the Thermal Power Station : _____

Capital cost as admitted by BERC as on_____	
(Give reference to the relevant BERC Order with Petition No. & Date)	
Foreign Component, if any (In Million US $ or the relevant Currency)	
Domestic Component (Rs. Cr.)	
Foreign Exchange rate considered for the admitted Capital cost	
Total Capital cost to be admitted (Rs. Cr)	

Appli

FORM-5

Abstract of Capital Cost Estimates Name of the Utility / and Schedule dates of Commissioni ng for the New projects

Company : _____ ____

Name of the Thermal Power Station : _____ _____

New Projects

Capital Cost Estimates

Name of Authority approving the Capital cost estimates:		
Date of approval of the Capital cost estimates:		
	Estimated Cost	**Completed Cost**
Price level of approved estimates	As of End of _____Qtr. Of the year _____	As on Scheduled COD of the Station
Foreign Exchange rate considered for theCapital cost estimates		
Capital Cost excluding IDC & FC		
Foreign Component, if any (In Million US $ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
Total Capital cost excluding IDC & FC (Rs. Cr)		

IDC & FC		
Foreign Component, if any (In Million US $ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
Total IDC & FC (Rs.Cr.)		
Rate of taxes & duties considered		
Capital cost Including IDC & FC		
Foreign Component, if any (In Million US $ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
Capital cost Including IDC & FC (Rs. Cr)		

Schedule date of Commissioning	
COD of Unit-I/Block-I	
COD of Unit-II/Block-II	

COD of last Unit/Block	

Note:
1. Copy of approval letter should be enclosed.
2. Details of Capital cost are to be furnished as per FORM-5B or 5C as applicable.
3. Details of IDC & Financing Charges are to be furnished as per FORM-16.

Applicant

FORM-5B Break-up of Capital

Cost for Coal/Lignite based projects

Name of the utility / Company : _____

Name of the Thermal Power Station : _____

Sl.No.	Break Down	Cost in Rs. Crores		Variation (Rs. Cr.)	Reasons for Variation	Admitted Cost (Rs. Cr.)
		As per original Estimates	As on COD			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.0	**Cost of Land & Site Development**					
1.1	Land					
1.2	Rehabilitation & Resettlement (R&R)					
1.3	Preliminary Investigation & Site development					
	Total Land & Site Development					
2.0	**Plant & Equipment**					
2.1	**Steam Generator Island**					
2.2	**Turbine Generator Island**					
2.3	**BOP Mechanical**					
2.3.1	External water supply system					
2.3.2	CW system					
2.3.3	DM water Plant					
2.3.4	Clarification plant					
2.3.5	Chlorination Plant					
2.3.6	Fuel Handiling & Storage system					
2.3.7	Ash Handling System					
2.3.8	Coal Handling Plant					
2.3.9	Rolling Stock and Locomotives					
2.3.10	MGR					
2.3.11	Air Compressor System					
2.3.12	Air Condition & Ventilation System					
2.3.13	Fire fighting System					
2.3.14	HP/LP Piping					
	Total BOP Mechanical					
2.4	**BOP Electrical**					
2.4.1	Switch Yard Package					
2.4.2	Transformers Package					
2.4.3	Switch gear Package					
2.4.4	Cables , Cable facilities & grounding					
2.4.5	Lighting					
2.4.6	Emergency D.G. set					
	Total BOP Electrical					
2.5	**C & I Package**					
	Total Plant & Equipment excluding taxes & Duties					
2.6	**Taxes and Duties**					
2.6.1	Custom Duty					
2.6.2	Other Taxes & Duties					
	Total Taxes & Duties					
	Total Plant & Equipment					
3.0	**Initial spares**					
4.0	**Civil Works**					
4.1	Main plant/Adm. Building					
4.2	CW system					
4.3	Cooling Towers					
4.4	DM water Plant					
4.5	Clarification plant					
4.6	chlorination plant					
4.7	Fuel Handiling & Storage system					
4.8	Coal Handling Plant					
4.9	MGR & Marshalling Yard					
4.10	Ash Handling System					
4.11	Ash disposal area development					
4.12	Fire fighting System					
4.13	Township & Colony					
4.14	Temp. construction & enabling works					
4.15	Road & Drainage					
	Total Civil works					
5.0	**Construction & Pre- Commissioning Expences**					
5.1	Erection Testing and commissioning					
5.2	Site supervision					
5.3	Operator's Training					
5.4	Construction Insurance					
5.5	Tools & Plant					
5.6	Start up fuel					
	Total Construction & Pre- Commissioning Expences					
6.0	**Overheads**					
6.1	Establishment					
6.2	Design & Engineering					
6.3	Audit & Accounts					
6.4	Contingency					
	Total Overheads					
7.0	**Capital cost excluding IDC & FC**					
7.1	Interest During Construction (IDC)					
7.2	Financing Charges (FC)					
8.0	**Capital cost including IDC & FC**					

Note:
1. In case of time & Cost over run, a detailed note giving reasons for such time and cost over run should be submitted clearly bring out the agency responsible and whether such time & cost over run was beyond the control of the generating company.

Applicant

FORM-5C Break-up of Capital

Cost for Gas/Liquid fuel based Project

Name of the Utility / Company : _____

Name of the Thermal Power Station : _____

Sl.No.	Item	Cost in Rs. Crores		Variation(Rs. Cr.)	Reasons for Variation	Admitted Cost (Cr.)
		As per original Estimates	As on COD			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.0	**Cost of Land & Site Development**					
1.1	Land					
1.2	Rehabilitation & Resettlement (R&R)					
1.3	Preliminary Investigation & Site development					
	Total Land & Site Development					
2.0	**Plant & Equipment**					
2.1	**Steam Turbine generator Island**					
2.2	**Turbine Generator Island**					
2.3	**WHRB Island**					
2.4	**BOP Mechanical**					
2.4.1	2.4.1 Fuel Handling & Storage system					
2.4.2	2.4.2 External water supply system					
2.4.3	CW system					
2.4.4	Cooling Towers					
2.4.5	DM water Plant					
2.4.6	Clarification plant					
2.4.7	Chlorination Plant					
2.4.8	2.4.8 Air condition & Ventilation System					
2.4.9	2.4.9 Fire Fighting system					
2.4.10	HP/LP Piping					
	Total BOP Mechanical					
2.5	**BOP Electrical**					
2.5.1	2.5.1 Switch Yard Package					
2.5.2	2.5.2 Transformers package					
2.5.3	2.5.3 Switch gear Package					
2.5.4	2.5.4 Cable , Cable Facilities & grounding					
2.5.5	Lighting					
2.5.6	2.5.6 Emergency D.G. set					
	Total BOP Electrical					
2.6	**C & I Package**					
	Total Plant & Equipment excluding taxes & Duties					
2.7	**Taxes and Duties**					
2.7.1	Custom Duty					
2.7.2	2.7.2 Other Taxes & Duties					
	Total Taxes & Duties					
	Total Plant & Equipment					
3.0	**Initial spares**					
4.0	**Civil Works**					
4.1	Main plant/Adm. Building					
4.2	External water supply system					
4.3	CW system					
4.4	Cooling Towers					
4.5	DM water Plant					
4.6	Clarification plant					
4.7	Fuel Handling & Storage system					
4.8	Township & Colony					
4.9	Temp. construction & enabling works					
4.10	Road & Drainage					
4.11	4.11 Fire Fighting system					
	Total Civil works					
5.0	**Construction & Pre- Commissioning Expences**					
5.1	Erection Testing and commissioning					
5.2	Site supervision					
5.3	Operator's Training					
5.4	Construction Insurance					
5.5	Tools & Plant					
5.6	Start up fuel					
	Total Construction & Pre- Commissioning Expences					
6.0	**Overheads**					
6.1	Establishment					
6.2	Design & Engineering					
6.3	Audit & Accounts					
6.4	Contingency					
	Total Overheads					
7.0	**Capital cost excluding IDC & FC**					
7.1	Interest During Construction (IDC)					
7.2	Financing Charges (FC)					
8.0	**Capital cost including IDC & FC**					

Note:

1. In case of time & Cost over run, a detailed note giving reasons of such time and cost over run should be submitted and clearly bring out the agency responsible and whether suc time & cost over run was beyond the control of the generating company.

Applic

FORM-5D **Br**

Construction/Supply/Service packages

Name of the Utility / Company : _____

Name of the Thermal Power Station :

_____

Sl.No.		Scope of works[1] (in line with cost break-ups as applicable under various heads)	Whether awarded through Depatmentally/ Deposit Work	No. of bids received	Date of Award	Date of Start of work	Date of Completion of Work	Value of Award[2] in (Rs. Cr.)	Firm or With Escalation in prices	expe ti com u whi earl
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	

1 The scope of work in any package should be indicated in conformity with Capital cost break-up for the coal/lignite based plants in the FORM-5B to the extent possible. In case of Gas/Liquid fuel based projects, break down in the similar manner in the relevent heads as per FORM-5C.

2 If there is any package, which need to be shown in Indian Rupee and foreign currency(ies), the same should be shown separatly alongwith the currency, the exchange e.g. Rs.80 Cr+US$ at US$=Rs40 as on

Applicant

Name of the Utility /Company:

_____

Name of the Thermal Power Station:

_____

Project Cost as on COD[1]_____

Date of Commercial Operation of the Station[2]

_____

(Amount in lakhs)

	Financial Package as Approved		**Financial Package as on COD**	
	Currency and Amount[3]		**Currency and Amount[3]**	
1	**2**	**3**	**4**	**5**
Loan-I	US $	200m		
Loan-II				
Loan-III				
and so on				
Equity-				
Foreign				
Domestic				
Total Equity				
Debt : Equity Ratio				

[1] Say US $ 200m + Rs.400 Cr or Rs.1200 Cr including US $200m at an exchange rate of 1US $=Rs.40/-

[2] Date of Commercial Operation means date of Commercial Operation of the last unit [3] For example : US $, 200M etc.etc

Applicant

FORM- 7

Details of Project Specific Loans

Name of the Utility / Company: _____

Name of the Thermal Power Station: _____

(Amount in lakhs)

Particulars	Package1	Package2	Package3	Package4	Package5	Package6
1	2	3	4	5	6	7
Source of Loan[1]						
Currency[2]						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.___/COD [3,4,5,13,15]						
Interest Type[6]						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest[7]						
Margin, if Floating Interest[8]	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Are there any Caps/Floor[9]						
If above is yes,specify caps/floor						
Moratorium Period[10]						
Moratorium effective from						
Repayment Period[11]						
Repayment effective from						
Repayment Frequency[12]						
Repayment Instalment[13,14]						
Base Exchange Rate[16]						

1 Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.

2 Currency refers to currency of loan such as US$, DM, Yen,Indian Rupee etc.

3 Details are to be submitted as on 31.03.___ for existing assets and as on COD for the remaining assets.

4 Where the loan has been refinanced, details in the Form are to be given for the loan refinaced. However, the details of the original loan are to be given seperately in the same form.

5 If the Tariff in the petition is claimed seperately for various units, details in the Form are to be given seperately for all the units in the same form.

6 Interest type means whether the interest is fixed or floating.

7 Base rate means the base as PLR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

8 Margin means the points over and above the floating rate.

9 At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.

10 Moratorium period refers to the period during which loan servicing liability is not required.

11 Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

12 Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.

13 Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayement may also be given seperately

14 If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment schedule to be furnished seperately.

15 In case of Foreign loan,date of each drawal & repayment alongwith exchange rate as on that date may be given.

16 Base exchange rate means the exchange rate prevailing as on 31.03.____ for existing assets and as on COD for the remaining assets.

Applicant

FORM- 8

Details of Allocation of corporate loans to various projects

Name of the Utility / Company: _____
Name of the Thermal Power Station: _____

(Amount in lakhs)

Particulars	Package1	Package2	Package3	Package4	Package5	Remarks
1	2	3	4	5	6	7
Source of Loan[1]						
Currency[2]						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.___/COD [3,4,5,13,15]						
Interest Type[6]						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest[7]						
Margin, if Floating Interest[8]						
Are there any Caps/Floor[9]	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	
If above is yes,specify caps/floor						
Moratorium Period[10]						
Moratorium effective from						
Repayment Period[11]						
Repayment effective from						
Repayment Frequency[12]						
Repayment Instalment[13,14]						
Base Exchange Rate[16]						
	Distribution of loan packag ges to variou s projects					
Name of the Projects						Total
Project 1						
Project 2						
Project 3 and so on						

1 Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.

2 Currency refers to currency of loan such as US$, DM, Yen,Indian Rupee etc.

3 Details are to be submitted as on 31.03.____ for existing assets and as on COD for the remaining assets. 4 Where the loan has been refinanced, details in the Form are to be given for the loan refinaced. However, the details of the original loan are to be given seperately in the same form.

5 If the Tariff in the petition is claimed seperately for various units, details in the Form are to be given seperately for all the units in the same form.

6 Interest type means whether the interest is fixed or floating.

7 Base rate means the base as PLR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

8 Margin means the points over and above the floating rate.

9 At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits. 10 Moratorium period refers to the period during which loan servicing liability is not required.

11 Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

12 Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.

13 Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayement and its allocation may also be given seperately

14 If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment schedule to be furnished seperately.

15 In case of Foreign loan,date of each drawal & repayment alongwith exchange rate as on that date may be given. 16 Base exchange rate means the exchange rate prevailing as on 31.03.____ for existing assets and as on COD for the remaining assets.

Applicant

FORM-9

Statement of Additional Capitalisation after COD

Name of the Utility / Company _____

Name of the Thermal Power Station _____

COD _____

Sl.No.	Year	Work/Equipment added after COD up to Cut off Date / Beyond Cut off Date[1]		Justification	Admitted Cost[2]
(1)	(2)	(3)	(4)	(5)	(6)
	Total				

1. Separate Statement of Additional capitalisation for (1) after COD and upto Cut off Date; and (2) beyond Cut off Date are to be funished.

2. In case the project has been completed and any tariff notification(s) has / have already been issued in the past by GOI or any other authority, fill column 6 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order)

Note:

1 Fill the form in chronological order year wise along with detailed justification and clearly bring out the necessity and the benefits accrued to the benficiaries.

2 In case initial spares are purchased alongwith any equipment, then the cost of such spares should be indicated separately. e.g. Rotor - 50 Crs. Initial spares- 5 Crs.etc.

Applicant

FORM - 10 Financing of Additional Capitalisation

Name of the Utility / Company: _____
Name of the Thermal Power Station: _____
Date of Commercial Operation: _____

	Actual				
Financial Year (Starting from COD)	**Year1[1]**	**Year2**	**Year3**	**Year4**	**Year 5**
1	**2**	**3**	**4**	**5**	**6**
Amount capitalised in Work/Equipment					
Financing Details					
Loan-1					
Loan-2					
Loan-3 and so on					
Total Loan[2]					
Equity					
Internal Resources					
Others					
Total					

[1] Year 1 refers to Financial Year of COD and Year 2, Year 3 etc. are the subsequent financial years respectively.

FORM-7 or 8 whichever is relevant.

APPLICANT

FORM- 11 Statement of Depreciation

Name of the Utility / Company:

_____

_____

Name of the Thermal Power Station:

_____

_____

(Amount in lakhs)

Financial Year	**Upto 2005-06[1]**	**Upto 2006 - 07**	**2007-08**	**2008-0**
1	**2**	**3**	**4**	**5**
Depreciation on Capital Cost				
Depreciation on Additional Capitalisation				
Amount of Additional Capitalisation				
Depreciation Amount				
Detail of FERV				
Amount of FERV on which depreciation charged				
Depreciation amount				
Depreciation recovered during the Year				
Advance against Depreciation recovered during the Year				
Total depreciation and advance against depreciation recovered during the year				
Cumulative Depreciation & Advance against Depreciation recovered upto the year				

[1] Depreciation recovered in Tariff upto _____ to be furnished with yaerwise details in the same form seperately with supporting details..

Applicant

FORM-

12 Calculation of Depreciation Rate

Name of the Utility / Company:

Name of the Thermal Power Station:

(Amount in lakhs)

Sl. no.	Name of the Assets[1]	Cost of asset as on 31.03.___ or as on COD, whichever is later	Depreciation Rates as per Schedule approved by CERC	Depreciation Amount
	1	2	3	4(Col.2 X Col.3)
1	Land			
2	Building			
3	and so on			
4				
5				
6				
7				
8				
9				
10				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
	TOTAL			
	Weighted Average Depreciation Rate (%)			

[1] Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule approved by the CERC.

Applicant

FORM-

13 Calculation of Interest on Loans

Name of the Utility / Company: _____

Name of the Thermal Power Station: _____

(Amount in lakhs)

Sl. no.	Particulars	Existing 2005-06	2006-07	2007-08	2008-09	2009-10
1	2	3	4	5	6	7
	Loan-1					
	Gross loan - Opening					
	Cumulative repayments of Loans upto previous year					
	Net loan - Opening					
	Increase / decrease due to FERV					
	Increase / decrease due to ACE					
	Total					
	Repayment (s) of Loans during the year					
	Net loan - Closing					
	Average Net Loan					
	Rate of Interest on Loan					
	Interest on loan					
	Loan-2					
	Gross loan - Opening					
	Cumulative repayments of Loans upto previous year					

	Net loan - Opening					
	Increase / decrease due to FERV					
	Increase / decrease due to ACE					
	Total					
	Repayment (s) of Loans during the year					
	Net loan - Closing					
	Average Net Loan					
	Rate of Interest on Loan					
	Interest on loan					
	Loan-3 and so on					
	Gross loan - Opening					
	Cumulative repayments of Loans upto previous year					
	Net loan - Opening					
	Increase / decrease due to FERV					
	Increase / decrease due to ACE					
	Total					
	Repayment (s) of Loans during the year					
	Net loan - Closing					
	Average Net Loan					
	Rate of Interest on Loan					
	Interest on loan					
	Total Loan					
	Gross loan - Opening					
	Cumulative repayments of Loans upto previous year					
	Net loan - Opening					
	Increase / decrease due to FERV					
	Increase / decrease due to ACE					
	Total					
	Repayment (s) of Loans during the year					
	Net loan - Closing					
	Average Net Loan					
	Interest on loan					
	Weighted average Rate of Interest on Loans					

1 In case of Foreign Loans, the calculations in Indian Rupees is to be furnished. However, the calculations in Orginal currency is also to be furnished seperately in the same form.

Applicant

FORM- 14

Calculation of Advance Against Depreciation (AAD)

Name of the Utility / Company:

_____

Name of the Thermal Power Station:

_____

(Amount in lakhs)

Particulars	Existing 2005-06	2006-07	2007-08	2008-09	
1	2	3	4	5	
1/10th of the Loan(s)					
Repayment of the Loan(s) as considered for working out Interest on Loan					
Minimum of the Above					
Less:Depreciation during the year					
(A_1)					
Cumulative Repayment of the Loan(s) as considered for working out Interest on Loan					
Less: Cumulative Depreciation					
(B_1)					
Advance Against Depreciation (Minimum of A & B)					

1 If the amount is negative, it will be shown as zero.

Applicant

FORM- 15

Calculation of Interest on Working Capital

Name of the Utility / Company
Name of the Thermal Power Station

Sl. No.	Particulars
1	2
1	Cost of Coal/Lignite[1]
2	Cost of Secondary Fuel Oil[1]
3	Fuel Cost[2]
4	Liquid Fuel cost[2]
5	O & M expenses
6	Maintenance Spares
7	Others
	Total Working Capital
	Rate of Interest
	Interest on Working Capital

(Amount in lakhs)

Existing 2005-06	2006-07	2007-08	2008-09	2009-10
3	4	5	6	7

[1]For Coal bsaed/Lignite based generating stations

[2]For Gas Turbine/Combined Cycle generating stations duly taking into account the mode of operation on gas fuel and liquid fuel

Applicant

FORM- 16 Name of the Utility / Company

Name of the Thermal Power Station

Draw Down Schedule for Calculation of IDC & Financing Charges

(Amount in Lakhs)

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee
1	**Loans**									
1.1	**Foreign Loans**									
1.1.1	**Foreign Loan 1**									
	Draw down Amount									
	IDC									
	Financing charges									
1.1.2	**Foreign Loan 2**									
	Draw down Amount									
	IDC									
	Financing charges									
1.1.3	**Foreign Loan 3**									
	Draw down Amount									
	IDC									
	Financing charges									
1.1.4	- -									
	- -									
	- -									
1.1	**Total Foreign Loans**									
	Draw down Amount									
	IDC									
	Financing charges									
1.2	**Indian Loans**									
1.2.1	**Indian Loan 1**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1.2.2	**Indian Loan 2**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1.2.3	**Indian Loan 3**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1.2.4	- -	--	--		--	--		--	--	
	- -	--	--		--	--		--	--	
	- -	--	--		--	--		--	--	
1.2	**Total Indian Loans**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1	**Total of Loans drawn**									
	IDC									
	Financing charges									
2	**Equity**									
2.1	**Foreign equity drawn**									
2.2	**Indian equity drawn**	--	--		--	--		--	--	
	Total equity deployed									

Note: Drawal of debt and equity shall be on paripassu basis to meet the commissioning schedule.

Applicant

FORM-17 **Information to be Submitted in respect of Fuel for Computation of Energy Charges[1]**

Name of the Utility / Company_____

Name of the ThermalPower Station_____

Sl. No.	Month	Unit	For preceeding 3rd Month	For preceeding 2nd Month	For preceeding 1st Month
1	Quantity of Coal/Lignite supplied by Coal/Lignite Company	(MMT)			
2	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)			
3	Coal supplied by Coal/Lignite Company (1+2)	(MMT)			
4	Normative Transit & Handling Losses (For coal/Lignit based Projects)	(MMT)			
5	Net coal / Lignite Supplied (3-4)	(MMT)			
6	Amount charged by the Coal /Lignite Company	(Rs.)			
7	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)			
8	Total amount Charged (6+7)	(Rs.)			
9	Transportation charges by rail/ship/road transport	(Rs.)			
10	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)			
11	Demurrage Charges, if any	(Rs.)			
12	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)			
13	Total Transportation Charges (9+/-10-11+12)	(Rs.)			
14	Total amount Charged for coal/lignite supplied including Transportation (8+13)	(Rs.)			
15	Weighted average GCV of coal/ Lignite as fired	(kCal/Kg)			

Note:

[1] Similar details to be furnished for natural gas/liquid fuel for CCGT station and secondary fuel oil for coal/lignite based thermal plants

Applicant

FORM – 18

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Name of the Company / Utility :_____

Name of the Power Station : _____

(Rs. In Lakhs)

	ITEMS	2002-03	2003-04 3	2004-05 4	2005-06 5	2006-07
	1	2				6
(A)	Breakup of O&M expenses					
1	1 Consumption of Stores and Spares					
2	2 Repair and Maintenance					
3	3 Insurance					
4	4 Security					
5	5 Administrarive Expenses					
	- Rent					
	- Electricity Charges					
	- Travelling and conveyance					
	- Telephone, telex and postage					
	- Advertising					
	- Entertainment					
	- Others (Specify items)					
	Sub-Total (Administrative Expenses)					

6	6 Employee Cost					
	a) Salaries, wages and allowances					
	b) Staff welfare expenses					
	c) Productivity linked incentive					
7	7 Corporate office expenses allocation					
8	8 Total (1 to 8)					
	LESS: Recovered , if any					
	Net Expenses					
(B)	Breakup of corporate expenses (Aggregate)					
	- Employee expenses					
	- Repair and maintenance					
	- Training and Recruitment					
	- Communication					
	- Travelling					
	- Security					
	- Rent					
	- Others					
	Total					
(C)	Details of number of Employees					
	I) Executives					
	ii) Non-Executives					
	iii) Skilled					
	iv) Non-Skilled					
	Total					

Notes:

I. The process of allocation of corporate expenses to generating stations should be specified II. An annual increase in O&M expenses under a given head in excess of 20 percent should be explained III. The data should be based on audited balance sheets

(APPLICANT)

Appendix-B

Name of Utitlity / Company _____

Application form to be filled by _____

Hydro Power Generating Station

For the year_____

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Appendix-B

Checklist of Forms and other information/ documents for tariff filing for _____Hydro Power Generating Station

Form No.	Title of Tariff Filing Forms (Hydro)	Tick

FORM-5A	Abstract of Capital Cost Estimates and Schedule dates of Commissioning for the New projects	

FORM-17	Details of Operation & Maintenance Expenses	
Other Information/ Documents		
Sl. No.	**Information/Document**	**Tick**
1	Certificate of incorporation, Certificate for Commencing Business, Memorandum of Association & Article of Association (for new station set up by a company making tariff application for the first time to CERC)	
2	Stationwise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on COD of the station and for the relevant years.	
3	Copies of relevant loan agreements	
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	
5	Copies of the Equity participation agreements and necessary approval for the foreign equity	
6	Copies of the BPSA/PPA with the beneficiaries, if any	
7	Detailed note giving reasons of time and cost over run, if applicable.	
8	Any other relevant information (if any, to be specified)	

Note: Electronic copy in the form of CD/Floppy disc shall also be furnished.

Name of the Company / Utility: _____

Name of the Hydro Power Station :_____

Region **State** **District**

(Rs. in lakhs)

S.No.	Particulars		Existing 2005-06	2006-07	2007-0
1	2		3	4	5
1	1 Depreciation	FORM- 11			
2	2 Interest on Loan	FORM- 13A			
3	3 Return on Equity[1]				
4	4 Advance against Depreciation	FORM- 14			
5	5 Interest on Working Capital	FORM- 15			
6	6 O & M Expenses				
	Total				

[1] Details of calculations to be furnished.

Applicant

FORM-2

Details of COD, Type of hydro station, Capacity Index, Primary energy rate etc.

NAME OF Utility / COMPANY:_____
NAME OF Hydro POWER STATION : _____

Sl. No.	Description		As per CERC norms for tariff period 2004-05 to 2008-09
1	1 Installed Capacity	MW	
2	2 Free power to home state	%	
3	3 Date of commercial operation		
	Unit-1		
	Unit-2		
	Unit-3		
4	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	5 Type of excitation		
	a) Rotaing exciters on generator		
	b) Static excitation		
6	6 Design Energy (Annual)[1]	Gwh	
7	7 Auxiliary Consumption	%	
8	8 Transformation losses	%	
9	9 Saleable Primary Energy	Gwh	
10	10 Primary Energy Rate	paise/Kwh	
11	11 Primary Energy Charge	Rs. in crore	
12	12 Capacity Index		
	Normative value		

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

APPLICANT

FORM-3

SALIENT FEATURES OF HYDROELECTRIC PROJECT

NAME OF Utility / COMPANY: _____

NAME OF Hydro POWER STATION: _____

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)	
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.

APPLICANT

FORM- 4

Details of Foreign loans

(Details only in respect of loans applicable to the project under consideration)

Name of the Utility / Company _____

Name of the Hydro Power Station _____

Exchange Rate at COD _____

Exchange Rate as on 31.03.____ _____

(Amount in lakhs)

Financial Year (Starting from COD)	**Year 1**				**Year 2**		
1	**2**	**3**	**4**	**5**	**6**	**7**	
	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs.)	Date	Amount (Foreign Currency)	Ex
Currency1[1]							
At the date of Drawl[2]							

Scheduled payment date of interest							
At the end of Financial year							
Currency2[1]							
At the date of Drawl[2]							

Scheduled payment date of interest							
At the end of Financial year							
Currency3[1] & so on							
At the date of Drawl[2]							

Scheduled payment date of interest							
At the end of Financial year							

1 Name of the currency to be mentioned e.g. US $, DM, etc. etc.

2 In case of more than one drawl during the year, Exchange rate at the date of each drawl to be given.

Applicant

FORM-5

Abstract of Admitted Capital Cost for the existing Project

Name of the Utility / Company : _____

Name of the Hydro Power Station : _____

Capital cost admitted as on ---------	
(Give reference to the order of the relevant BERC / relevant authority along with application No. & Date)	
Foreign Component, if any (In Million US $ or the relevant Currency)	
Domestic Component (Rs. Cr.)	
Foreign Exchange rate considered for the admitted cost	
Total Capital cost to be admitted (Rs. Cr)	

APPLICANT

FORM-5A

Abstract of Capital Cost Estimates and Schedule dates of Commissioning for the New projects **Name of the Utility / Company :** _____

Name of the Hydro Power Station : _____

New Projects

Capital Cost Estimates

Name of the Authority approving the project cost estimates:		
Date of approval of the Capital cost estimates:		
	Estimated Cost	**Completed Cost**
Price level of approved estimates	As of End of _____Qtr. Of the year _____	As on Scheduled COD of the Station
Foreign Exchange rate considered for the capital cost estimates		
Capital Cost excluding IDC & FC		
Foreign Component, if any (In Million US $ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
Capital cost excluding IDC & FC (Rs. Cr)		
IDC & FC		
Foreign Component, if any (In Million US $ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
IDC & FC (Rs.Cr.)		
Rate of taxes & duties considered		

Schedule dates of Commissioning	
COD of Unit-I	
COD of Unit-II	

COD of last Unit	

Note:
1. Copy of approval letter should be enclosed.
2. Details of capital cost are to be furnished as per FORM-5B or 5C as applicable.
3. Details of IDC & Financing Charges are to be furnished as per FORM-16.

Applicant

FORM-5B

Break up of Cap ital cost (fo r hydro pow er generat ing statio

(Rs. in crore)

NAME OF Utility / COMPANY: _____ _____

NAME OF Hydro POWER STATION: ____ _____

Sl. No.	Head of works	Original cost as approved by Authority	Cost on COD	Variation	Reasons for variation	Admitted cost
1	2	3	4	5	6	7
1.0	1.0 **Infrastructure Works**					
1.1	1.1 Preliminary including Development					
1.2	Land					
1.3	1.3 Buildings					
1.4	1.4 Township					
1.5	1.5 Maintenance					
1.6	1.6 Tools & Plants					
1.7	1.7 Communication					
1.8	1.8 Environment & Ecology					
1.9	1.9 Losses on stock					
1.10	1.10 Receipt & Recoveries					
1.11	1.11 Total (Infrastructure works)					
2.0	2.0 **Major Civil Works**					
2.1	2.1 Dam, Intake & Desilting Chambers					
2.2	HRT, TRT, Surge Shaft & Pressure shafts 2.3					
2.3	Power Plant civil works					
2.4	2.4 Other civil works (to be specified)					
2.5	2.5 Total (Major Civil Works)					
3.0	3.0 **Hydro Mechanical equipments**					
4.0	4.0 **Plant & Equipment**					
4.1	4.1 Initial spares of Plant & Equipment					
4.2	4.2 Total (Plant & Equipment)					
5.0	5.0 **Taxes and Duties**					
5.1	5.1 Custom Duty					
5.2	5.2 Other taxes & Duties					
5.3	5.3 Total Taxes & Duties					
6.0	6.0 **Construction & Pre-commissioning expenses**					
6.1	6.1 Erection, testing & commissioning					
6.2	6.2 Construction Insurance					
6.3	6.3 Site supervision					
6.4	6.4 Total (Const. & Pre-commissioning)					
7.0	7.0 **Overheads**					
7.1	7.1 Establishment					
7.2	7.2 Design & Engineering					
7.3	7.3 Audit & Accounts					
7.4	7.4 Contingency					
7.5	7.5 Rehabilitation & Resettlement					
7.6	7.6 Total (Overheads)					
8.0	8.0 **Capital Cost without IDC & FC**					
9.0	9.0 Financing charges (FC)					
10.0	10.0 Interest during construction (IDC)					
11.0	11.0 **Capital Cost with IDC & FC**					

Note:

1. In case of time and cost over-run of the project, a detailed note giving reasons of such time and cost over run should be submitted, duly bringing out the agency responsible and whether such time and cost over run was beyond the control of the generating company.

APPLICANT

FORM- 5C

Break up of Capital Cost for Plant & Equipment

NAME OF Utility / COMPANY:_____

NAME OF Hydro POWER STATION: _____

(Rs. in crore)

Sl. No.	Head of works	Original Cost as approved by Authority	Cost on COD	Variation	Reasons for variation	Admitted cost
1	2	3	4	5	6	7
1.0	1.0 **Generator, turbine & Acessories**					
1.1	1.1 Generator package					
1.2	1.2 Turbine package					
1.3	1.3 Unit control Board					
1.4	1.4 C&I package					
1.5	1.5 Bus Duct of GT connection					
1.6	Total (Generator, turbine & Acessories)					
2.0	2.0 **Auxiliary Electrical Equipment**					
2.1	2.1 Step up transformer					
2.2	2.2 Unit Auxiliary Transformer					
2.3	2.3 Local supply transformer					
2.4	2.4 Station transformer					
2.5	SCADA					
2.6	Switchgear, Batteries, DC dist. Board					
2.7	2.7 Telecommunication equipment					
2.8	Illumination of Dam, PH and Switchyard					
2.9	2.9 Cables & cable facilities, grounding					
2.10	2.10 Diesel generating sets					
2.11	2.11 Total (Auxiliary Elect. Equipment)					
3.0	**Auxiliary equipment & services for power station**					
3.1	3.1 EOT crane					
3.2	3.2 Other cranes					
3.3	3.3 Electric lifts & elevators					
3.4	3.4 Cooling water system					
3.5	3.5 Drainage & dewatering system					
3.6	3.6 Fire fighting equipment					
3.7	Air conditioning, ventilation and heating					
3.8	3.8 Water supply system					
3.9	3.9 Oil handling equipment					
3.10	3.10 Workshop machines & equipment					
3.11	Total (Auxiliary equipt. & services for PS)					
4.0	4.0 Switchyard package					
5.0	Initial spares for all above equipments					
6.0	6.0 **Total (Plant & Equipment)**					

APPLICANT

FORM-5D Break-up of Construction/Supply/Service packages

Name of the Utility / Company : _____

Name of the Hydro Power Station : _____

Sl.No.	Name/No. of Construction / Supply / Service Package	Scope of works(in line with head of cost break-ups as applicable)	Whether awarded through ICB/DCB/ Depatmentally/ Deposit Work	No. of bids received	Date of Award	Date of Start of work	Date of Completion of Work	Value of Awardıin (Rs. Cr.)	Firm or With Escalation in prices	Actual expenditure till the completion or up to COD whichever is earlier(Rs.Cr.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

FORM- 6

Financial Package upto COD

Name of the Utility / Company
Name of the Hydro Power Station
Project Cost as on COD[1]
Date of Commercial Operation of the Station[2]

_____
_____
_____
_____

(Amount in lakhs)

	Financial Package as Approved		Financial Package as on COD	
	Currency and Amount[3]		Currency and Amount[3]	
1	2	3	4	5
Loan-I	US $	200m		
Loan-II				
Loan-III				
and so on				
Equity-				
Foreign				
Domestic				
Total Equity				
Debt : Equity Ratio				

[1] Say US $ 200m + Rs.400 Cr or Rs.1200 Cr including US $200m at an exchange rate of 1US $=Rs.40/- [2] Date of Commercial Operation means Commercial Operation of the last unit

[3] For example : US $, 200M etc.etc

APPLICANT

FORM- 7

Details of Project Specific Loans

Name of the Utility / Company: _____

Name of the Hydro Power Station: _____

(Amount in lakhs)

Particulars	Package1	Package2	Package3	Package4	Package5	Package6
1	2	3	4	5	6	7
Source of Loan[1]						
Currency[2]						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.____/COD [3,4,5,13,15]						
Interest Type[6]						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest[7]						
Margin, if Floating Interest[8]	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Are there any Caps/Floor[9]						
If above is yes,specify caps/floor						
Moratorium Period[10]						
Moratorium effective from						
Repayment Period[11]						
Repayment effective from						
Repayment Frequency[12]						
Repayment Instalment[13,14]						
Base Exchange Rate[16]						

[1] Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.

[2] Currency refers to currency of loan such as US$, DM, Yen,Indian Rupee etc.

[3] Details are to be submitted as on 31.03.____ for existing assets and as on COD for the remaining assets. [4] Where the loan has been refinanced, details in the Form are to be given for the loan refinaced. However, the details of the original loan are to be given seperately in the same form.

[5] If the Tariff in the petition is claimed seperately for various units, details in the Form are to be given seperately for all the units in the same form.

[6] Interest type means whether the interest is fixed or floating.

[7] Base rate means the base as PLR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

[8] Margin means the points over and above the floating rate.

[9] At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.

[10] Moratorium period refers to the period during which loan servicing liability is not required.

[11] Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

[12] Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.

[13] Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayement may also be given seperately

[14] If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment schedule to be furnished seperately.

[15] In case of Foreign loan,date of each drawal & repayment alongwith exchange rate as on that date may be given.

[16] Base exchange rate means the exchange rate prevailing as on 31.03._____ for existing assets and as on COD for the remaining assets.

APPLICANT

FORM- 8

Details of Allocation of corporate loans to various projects

Name of the Utility / Company: _____

Name of the Hydro Power Station: _____

(Amount in lacs)

Particulars	Package1	Package2	Package3	Package4	Package5	Remarks
1	2	3	4	5	6	7
Source of Loan[1]						
Currency[2]						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.___/COD [3,4,5,13,15]						
Interest Type[6]						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest[7]						
Margin, if Floating Interest[8]						
Are there any Caps/Floor[9]	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	
If above is yes,specify caps/floor						
Moratorium Period[10]						
Moratorium effective from						
Repayment Period[11]						
Repayment effective from						
Repayment Frequency[12]						
Repayment Instalment[13,14]						
Base Exchange Rate[16]						
	Distribution of loan packages to various projects					
Name of the Projects						Total
Project 1						
Project 2						
Project 3 and so on						

[1] Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.

[2] Currency refers to currency of loan such as US$, DM, Yen,Indian Rupee etc.

[3] Details are to be submitted as on 31.03.____ for existing assets and as on COD for the remaining assets. [4] Where the loan has been refinanced, details in the Form are to be given for the loan refinaced. However, the details of the original loan are to be given seperately in the same form.

[5] If the Tariff in the petition is claimed seperately for various units, details in the Form are to be given seperately for all the units in the same form.

[6] Interest type means whether the interest is fixed or floating.

[7] Base rate means the base as PLR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

[8] Margin means the points over and above the floating rate.

[9] At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits. [10] Moratorium period refers to the period during which loan servicing liability is not required.

[11] Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

[12] Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.

[13] Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayement and its allocation may also be given seperately

[14] If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment schedule to be furnished seperately.

[15] In case of Foreign loan,date of each drawal & repayment alongwith exchange rate as on that date may be given.

[16] Base exchange rate means the exchange rate prevailing as on _____ for existing assets and as on COD for the remaining assets.

Applicant

FORM-9

Statement of Additional Capitalisation after COD

Name of the Utility / Company :_____

Name of Hydro Power Station: _____

COD :

Sl.No	Year	Work/Equipment added after COD up to Cut off Date/ Beyond Cut off Date [1]	Amount Capitalised/ Proposed to be Capitalised	Justification	Admitted Cost
1	2	3	4	5	6
	Total				

1. Separate statements of Additional Capitalisation for (1) after COD and upto Cut off date; and (2) beyond cut off date are to be furnished.

2. In case of the project has been completed and any tariff notification(s) has / have already been issued in the past by Govt. of India or any other authority, fill column 6 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order)

Note:

1. Fill the form in chronological order year wise along with detailed justification and clearly bringing out the necessity and the benefits accrued to the beneficiaries.

2. In case initial spares purcahsed alongwith any equipment , then the cost of such spares should be indicated separately,e.g. Rotor- 50 Crs. Initial spares - 5 Crs.etc.

APPLICANT

FORM

- 10 Financing of Additional Capitalisation

Name of the Utility / Company: _____
Name of the Hydro Power Station: _____
Date of Commercial Operation: _____

(Amount in lakhs)

Financial Year (Starting from COD)	
1	
Amount capitalised in Work/Equipment	
Financing Details	
Loan-1	
Loan-2	
Loan-3 and so on	
Total Loan[2]	
Equity	
Internal Resources	
Others	
Total	

Actual				
Year1[1]	**Year2**	**Year3**	**Year4**	**Year 5**
2	**3**	**4**	**5**	**6**

[1] Year 1 refers to Financial Year of COD and Year 2, Year 3 etc. are the subsequent financial years respectively.

FORM-7 or 8 whichever is relevant.

APPLICANT

FORM- 11 Statement of Depreciation

Name of the Utility / Company:

_____

_____

Name of the Hydro Power Station:

_____

_____

(Amount in lacs)

Financial Year	**Upto 2005-06[1]**	**2006 - 07**	**2007-08**	**2008-0**
1	**2**	**3**	**4**	**5**
Depreciation on Capital Cost				
Depreciation on Additional Capitalisation				
Amount of Additional Capitalisation				
Depreciation Amount				
Detail of FERV				
Amount of FERV on which depreciation charged				
Depreciation amount				
Depreciation recovered during the Year				
Advance against Depreciation recovered during the Year				
Total depreciation and advance against depreciation recovered during the year				
Cumulative Depreciation & Advance against Depreciation recovered upto the year				

[1] Depreciation recovered in Tariff upto _____ to be furnished with yaerwise details in the same form seperately with supporting details..

APPLICANT

FORM-

12 Calculation of Depreciation Rate

Name of the Utility / Company:

Name of the Hydro Power Station:

(Amount in lakhs)

Sl. no.	Name of the Assets1	Cost of asset as on 31.03.___ or as on COD, whichever is later	Depreciation Rates as per Schedule approved by CERC	Depreciation Amount
	1	2	3	4(Col.2 X Col.3)
1	Land			
2	Building			
3	and so on			
4				
5				
6				
7				
8				
9				
10				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
	TOTAL			
	Weighted Average Depreciation Rate (%)			

1 Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule approved by the CERC.

APPLICANT

FORM- 13

Calculation of Interest on Actual Loans1

Name of the Utility / Company: _____

Name of the Power Station: _____

(Amount in lakhs)

Sl. no.	Particulars	Existing 2005-06	2006-07	2007-08	2008-09	2009-10
1	2	3	4	5	6	7
	Loan-1					
	Gross loan - Opening					
	Cumulative repayments of Loans upto previous year					
	Net loan - Opening					
	Increase / decrease due to FERV					
	Increase / decrease due to ACE					
	Total					
	Repayment (s) of Loans during the year					
	Net loan - Closing					
	Average Net Loan					
	Rate of Interest on Loan					
	Interest on loan					
	Loan-2					
	Gross loan - Opening					
	Cumulative repayments of Loans upto previous year					
	Net loan - Opening					

	Increase / decrease due to FERV					
	Increase / decrease due to ACE					
	Total					
	Repayment (s) of Loans during the year					
	Net loan - Closing					
	Average Net Loan					
	Rate of Interest on Loan					
	Interest on loan					
	Loan-3 and so on					
	Gross loan - Opening					
	Cumulative repayments of Loans upto previous year					
	Net loan - Opening					
	Increase / decrease due to FERV					
	Increase / decrease due to ACE					
	Total					
	Repayment (s) of Loans during the year					
	Net loan - Closing					
	Average Net Loan					
	Rate of Interest on Loan					
	Interest on loan					
	Total Loan					
	Gross loan - Opening					
	Cumulative repayments of Loans upto previous year					
	Net loan - Opening					
	Increase / decrease due to FERV					
	Increase / decrease due to ACE					
	Total					
	Repayment (s) of Loans during the year					
	Net loan - Closing					
	Average Net Loan					
	Interest on loan					
	Weighted average Rate of Interest on Loans					

1 In case of Foreign Loans, the calculations in Indian Rupees is to be furnished. However, the calculations in Orginal currency is also to be furnished seperately in the same form.

APPLICANT

FORM- 14

Calculation of Advance Against Depreciation (AAD)

Name of the Utility / Company:

_____

Name of the Hydro Power Station:

_____

(Amount in lakhs)

Particulars	Existing 2005-06	2006-07	2007-08	2008-09	
1	2	3	4	5	
1/10th of the Loan(s)					
Repayment of the Loan(s) as considered for working out Interest on Loan					
Minimum of the Above					
Less:Depreciation during the year					
(A_1)					
Cumulative Repayment of the Loan(s) as considered for working out Interest on Loan					
Less: Cumulative Depreciation					
(B_1)					
Advance Against Depreciation (Minimum of A & B)					

1 If the amount is negative, it will be shown as zero.

APPLICANT

FORM- 15

Calculation of Interest on Working Capital

Name of the Utility / Company
Name of the Hydro Power Station

_____
_____

Sl. No.	Particulars	Existing 2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6
1	O & M expenses				
2	Maintenance Spares				
3	Recievables				
	Total Working Capital				
	Rate of Interest				
	Interest on Working Capital				

Applicant

FORM- 16 Name of the Utility / Company

Name of the Hydro Power Station

Draw Down Schedule for Calculation of IDC & Financing Charges

(Amount in Lakhs)

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee
1	**Loans**									
1.1	**Foreign Loans**									
1.1.1	**Foreign Loan 1**									
	Draw down Amount									
	IDC									
	Financing charges									
1.1.2	**Foreign Loan 2**									
	Draw down Amount									
	IDC									
	Financing charges									
1.1.3	**Foreign Loan 3**									
	Draw down Amount									
	IDC									
	Financing charges									
1.1.4	- -									
	- -									
	- -									
1.1	**Total Foreign Loans**									
	Draw down Amount									
	IDC									
	Financing charges									
1.2	**Indian Loans**									
1.2.1	**Indian Loan 1**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1.2.2	**Indian Loan 2**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1.2.3	**Indian Loan 3**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1.2.4	- -	--	--		--	--		--	--	
	- -	--	--		--	--		--	--	
	- -	--	--		--	--		--	--	
1.2	**Total Indian Loans**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1	**Total of Loans drawn**									
	IDC									
	Financing charges									
2	**Equity**									
2.1	**Foreign equity drawn**									
2.2	**Indian equity drawn**	--	--		--	--		--	--	
	Total equity deployed									

Note: Drawal of debt and equity shall be on paripassu basis to meet the commissioning schedule.

APPLICANT

FORM – 17

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Name of the Company / Utility :_____

Name of the Power Station : _____

(Rs. In Lakhs)

	ITEMS	2002-03	2003-04 3	2004-05 4	2005-06 5	2006-07
	1	2				6
(A)	Breakup of O&M expenses					
1	1 Consumption of Stores and Spares					
2	2 Repair and Maintenance					
3	3 Insurance					
4	4 Security					
5	5 Administrarive Expenses					
	- Rent					
	- Electricity Charges					
	- Travelling and conveyance					
	- Telephone, telex and postage					
	- Advertising					
	- Entertainment					
	- Others (Specify items)					
	Sub-Total (Administrative Expenses)					
6	6 Employee Cost					
	a) Salaries, wages and allowances					
	b) Staff welfare expenses					
	c) Productivity linked incentive					
7	7 Corporate office expenses allocation					
8	8 Total (1 to 8)					
	LESS: Recovered , if any					
	Net Expenses					
	Notes: I. The process of allocation of corporate expenses to generating stations should be specified II. An annual increase in O&M expenses under a given head in excess of 20 percent should be explained III. The data should be based on audited balance sheets					
(B)	Breakup of corporate expenses (Aggregate)					
	- Employee expenses					
	- Repair and maintenance					
	- Training and Recruitment					
	- Communication					
	- Travelling					
	- Security					
	- Rent					
	- Others					
	Total					
(C)	Details of number of Employees					
	I) Executives					
	ii) Non-Executives					
	iii) Skilled					
	iv) Non-Skilled					
	Total					

(APPLICANT)

Appendix-C

Application form to be filled by _____

TRANSMISSION LICENSEE

For the year_____

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Checklist of Forms and other information/ documents for tariff filing for Transmission System

Name of Utility / Transmission Licensee

Form No.	Tariff Filing Formats (Transmission)	Tick

FORM- 8	Details of Allocation of corporate loans to various transmission elements	

FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	
#REF!	Calculation of Interest on Loans	

FORM- 16	Draw Down Schedule for Calculation of IDC & Financing Charges	

FORM - 17	Details of operation and maintenance expenses	
Other Information/ Documents		
Sl. No.	**Information/Document**	**Tick**
1	Certificate of incorporation, Certificate for Commencment of Business, Memorandum of Association, & Articles of Association (For New Station setup by a company making tariff application for the first time to CERC)	
2	Regionwise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new Transmission System & for the relevant years.	
3	Copies of relevant loan Agreements	
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	
6	Copies of the BPTA/TSA with the beneficiaries, if any	
7	Detailed note giving reasons of time and cost over run, if applicable.	
8	Any other relevant information, (Please specify)	

Note: Electronic copy in the form of CD/Floppy disc shall also be furnished.

Name of the Company / Utility:
_____
_____
_____

Name of the Project :
_____
_____
_____
_____

Name of the Transmission Element :_____
_____
_

Region **State** **Distr**

(Rs. in lakhs)

S.No.	Particulars		Existing 2005-06	2006-07	2007-0
1	2		3	4	5
1	1 Depreciation	FORM- 11			
2	2 Interest on Loan	FORM- 13A			
3	3 Return on Equity[1]				
4	4 Advance against Depreciation	FORM- 14			
5	5 Interest on Working Capital	FORM- 15			
6	6 O & M Expenses				
	Total				

[1] Details of calculations to be furnished.

APPLICANT

Form

2 DETAILS OF TRANSMISSION LINES & SUBSTATIONS

Name of theTransmission Licensee : _____

Name of the Project : _____

Name of Region: _____

Transmission lines

S.NO.	Name of line	Type of line AC/HVDC	S/C or D/C	Voltage level kV	Line length Ckt.-Km.	Date of Commercial operation	Covered in this petition (Yes/No)
1							
2							
3							
4							
-							
-							
-							

Substations

S.NO.	Name of Sub-station	Type of Substation Conventional/ GIS	Voltage level kV		No. of Bays	Date of Commercial operation	Covered in this petition (Yes/No)
1							
2							
3							
4							
-							
-							

APPLICANT

FORM-3

Normative Parameters to be considered for tariff calculations

Name of theTransmission Licensee :

Name of the Project :

Name of Region:

Particulars	**Unit**	**As Existing**				
		2005-06	**2006-07**	**2007-08**	**2008-09**	**2009-10**
1	**2**	**3**	**4**	**5**	**6**	**7**
Target Availability	%					
Normative O&M per ckt.km	Rs. lakhs					
Normative O&M per bay	Rs. lakhs					
Spares for WC as % of O&M	%					
Recievables in Months for WC	months					
Rate of Return on Equity (%)	%					

APPLICANT

FORM- 4

Details of Foreign loans

(Details in respect of loans applicable to the project under consideration)

Name of the Company _____

Name of the Project _____

Name of the Transmission Element : _____

Exchange Rate at COD _____

Exchange Rate as on 31.03. _____

(Amount in lakhs)

Financial Year (Starting from COD)	**Year 1**				**Year 2**			
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs.)	Date	Amount (Foreign Currency)	Exchange Rate	
Currency1[1]								
At the date of Drawl[2]								

Scheduled payment date of interest							
At the end of Financial year							
Currency2[1]							
At the date of Drawl[2]							

Scheduled payment date of interest							
At the end of Financial year							
Currency3[1] & so on							
At the date of Drawl[2]							

Scheduled payment date of interest							
At the end of Financial year							

1 Name of the currency to be mentioned e.g. US $, DM, etc. etc.

2 In case of more than one drawl during the year, Exchange rate and the date of each drawl to be given.

APPLICANT

FORM-5

Abstract of Admitted Capital Cost for the existing Project

Name of the Transmission Licensee : _____

Name of the Project :

Name of Region : _____

Capital cost admitted as on ---------	
(Give reference of the BERC relevant authority Order with application No. & Date)	
Foreign Component, if any (In Million US $ or the relevant Currency)	
Domestic Component (Rs. Cr.)	
Foreign Exchange rate considered for the admitted cost	
Total Project cost to be admitted (Rs. Cr)	

APPLICANT

FORM-5A

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects **Name of the**

Transmission Licensee : _____

Name of the Project : _____

Name of Region:

Capital Cost Estimates for new projects

Name of Authority approving the Capital cost estimates:		
Date of approval of the Capital cost estimates:		
	Estimated Day Cost	**Completed Cost**
Price level of approved estimates	As of End of _____Qtr. Of the year _____	As on Scheduled COD of the System
Foreign Exchange rate considered for the Capital cost estimates		
Capital Cost excluding IDC & FC		
Foreign Component, if any (In Million US $ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
Capital cost excluding IDC & FC (Rs. Cr) - Total		
IDC & FC		
Foreign Component, if any (In Million US $ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
Total IDC & FC (Rs.Cr.)		
Rate of taxes & duties to be considered		
Capital cost Including IDC & FC		
Foreign Component, if any (In Million US $ or the relevant Currency)		
Domestic Component (Rs. Cr.)		
Total Capital cost Including IDC & FC (Rs. Cr)		
Schedule of Commissioning		
(Scheduled DOC elementwise)		

Note:
1. Copy of approval letter should be enclosed.
2. Details of Capital cost are to be furnished as per FORM-5B or 5C as applicable.
3. Details of IDC & Financing Charges are to be furnished as per FORM-16.

APPLICANT

Form 5B

Break-up of Project Capital Cost for Transmission System Name

of theTransmission Licensee :_____

Name of the Project : _____

Name of Region: _____

Sl.No.	Break Down	Capital Cost in Rs. Crores		Variation	Reasons for Variation	Admitted Cost
		As per original Estimates	As on COD			
1	2	3	4	5	6	7
A	**TRANSMISSION LINE**					
1.0	**Preliminary works**					
1.1	Design & Engineering					
1.2	Priliminary investigation,Right of way, forest clearance, PTCC , general civil works etc.					
1.3	**Total Preliminary works**					
2.0	**Transmission Lines material**					
2.1	Towers Steel					
2.2	Conductor					
2.3	Earth Wire					
2.4	Insulators					
2.5	Hardware Fittings					
2.6	Conductor & Earthwire accessories					
	Total Transmission Lines material					
2.8	Spares					
2.9	Erection, Stringing & Civil works including foundation					
3.0	**Taxes and Duties**					
3.1	Custom Duty					
3.2	Other Taxes & Duties					
	Total Taxes & Duties					
	Total -Transmission lines					
B.	**SUBSTATIONS**					
4.0	**Preliminary works & land**					
4.1	Design & Engineering					
4.2	Land					
4.3	Site preparation					
	Total Preliminary works & land					
5.0	**Civil Works**					
5.1	Control Room & Office Building including HVAC					
5.2	Township & Colony					
5.3	Roads and Drainage					
5.4	Foundation for structures					
5.5	Misc. civil works					
	Total Civil Works					
6.0	**Substation Equipments**					
6.1	Switchgear (CT,PT, Circuit Breaker, Isolator etc)					
6.2	Transformers					
6.3	Compensating Equipment(Reactor, SVCs etc)					
6.4	Control , Relay & Protection Panel					
6.5	PLCC					
6.6	HVDC package					
6.7	Bus Bars/ conductors/Insulators					
6.8	Outdoor lighting					
6.9	Emergency D.G. Set					
6.10	Grounding System					
6.11	Structure for switchyard					
	Total Substation Equipments					
7.00	Spares					
8.0	**Taxes and Duties**					
8.1	Custom Duty					
8.2	Other Taxes & Duties					
8.3	**Total Taxes & Duties**					
	Total (Sub-station)					

9.0	**Construction and pre-commissioning expenses**					
9.1	Site supervision & site admn.etc.					
9.2	Tools and Plants					
9.3	construction Insurance					
	Total Construction and pre - commissioning expenses					
10.0	**Overheads**					
10.1	Establishment					
10.2	Audit & Accounts					
10.3	Contingency					
	Total Overheads					
11.0	**Project Capital cost without IDC & FC**					
12.0	**IDC & FC**					
13.0	**Project Capital cost including IDC & FC**					

APPLICANT

Form 5C Break-up of Construction/Supply/Sevice packages

Name of theTransmission Licensee :

_____

Name of the Project : _____

Name of Region: _____

S.No.	Name/No. of Construction/supply/service package	Scope of works[1] (in line with head of cost break-ups as applicable)	Whether awarded through ICB/DCB/ Depatmentally/ Deposit Work etc & No. of bids received	No. of bids received	Date of Award	Date of Start of work	Date of Comple-tion of Work	Value of Award[2] in (Rs. Cr.)	Firm or With Escalation in prices	Actual expenditure till the completion or up to COD whichever is earlier

form-5B to the extent possible.

2 If there is any package, which need to be shown in Indian Rupee and foreign currency(ies), the same should be shown separatly alongwith the currency, the exchange rate e.g. Rs.80 Cr+US$50m=Rs.280Cr at US$=Rs40 as on say _____.

APPLICANT

For

m 5D DETAILS OF ELEMENTWISE COST

Name of theTransmission Licensee : _____

Name of the Project : _____

Name of Region: _____

Transmission lines

S.NO.	Name of line	Apportioned approved Cost (Rs. Lakhs)	Completed Cost (Rs. Lakhs)
1			
2			
3			
4			
-			
-			
-			

Substations

S.NO.	Name of Substation	Apportioned Capital approved Cost (Rs. Lakhs)	Completed Cost (Rs. Lakhs)
1			
2			
3			
4			
-			
-			

Applicant

FORM- 6

Financial Package upto COD

Name of the Utility / Company

_____

_____

Name of the Project :

_____

_____

Name of the Transmission Element :

Project Cost as on COD[1]

Date of Commercial Operation of the Transmission element[2]

_____

_____

_____

(Amount in lakhs)

	Financial Package as Approved		Financial Package as on COD	
	Currency and Amount[3]		Currency and Amount[3]	
1	2	3	4	5
Loan-I	US $	200m		
Loan-II				
Loan-III				
and so on				
Equity-				
Foreign				
Domestic				
Total Equity				
Debt : Equity Ratio				

[1] Say US $ 200m + Rs.400 Cr or Rs.1200 Cr including US $200m at an exchange rate of 1US $=Rs.40/- [2] Date of Commercial Operation means Commercial Operation of the transmission element

[3] For example : US $, 200M etc.etc

APPLICANT

FORM- 7 Details of Project Specific Loans

Name of the Company _____ **Name of the Project :** _____

Name of the Transmission Element :

_____

(Amount in lakhs)

Particulars	Package1	Package2	Package3	Package4	Package5	Package6
1	2	3	4	5	6	7
Source of Loan[1]						
Currency[2]						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.____/COD [3,4,5,13,15]						
Interest Type[6]						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest[7]						
Margin, if Floating Interest[8]	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Are there any Caps/Floor[9]						
If above is yes,specify caps/floor						
Moratorium Period[10]						
Moratorium effective from						
Repayment Period[11]						
Repayment effective from						
Repayment Frequency[12]						
Repayment Instalment[13,14]						
Base Exchange Rate[16]						

1 Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.

2 Currency refers to currency of loan such as US$, DM, Yen,Indian Rupee etc.

3 Details are to be submitted as on 31.03.____for existing assets and as on COD for the remaining assets.

4 Where the loan has been refinanced, details in the Form are to be given for the loan refinaced. However, the details of the original loan are to be given seperately in the same form.

5 If the Tariff in the petition is claimed seperately for various transmission elements, details in the Form are to be given seperately for all the transmission elements in the same form.

6 Interest type means whether the interest is fixed or floating.

7 Base rate means the base as PLR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

8 Margin means the points over and above the floating rate.

9 At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits. 10 Moratorium period refers to the period during which loan servicing liability is not required.

11 Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

12 Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.

13 Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayement may also be given seperately

14 If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment schedule to be furnished seperately.

15 In case of Foreign loan,date of each drawal & repayment alongwith exchange rate as on that date may be given. 16 Base exchange rate means the exchange rate prevailing as on 31.03.____for existing assets and as on COD for the remaining assets.

APPLICANT

FORM- 8 Details of Allocation of corporate loans to various transmission elements

Name of the Company _____

Name of the Project : _____

Name of the Transmission Element :

_____

Particulars	Package1	Package2	Package3	Package4	Package5	Remarks
1	2	3	4	5	6	7
Source of Loan[1]						
Currency[2]						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03. /COD [3,4,5,13,15]						
Interest Type[6]						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest[7]						
Margin, if Floating Interest[8]						
Are there any Caps/Floor[9]	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	
If above is yes,specify caps/floor						

Moratorium Period[10]						
Moratorium effective from						
Repayment Period[11]						
Repayment effective from						
Repayment Frequency[12]						
Repayment Instalment[13,14]						
Base Exchange Rate[16]						
Distribution of loan packages to various transmission elements						
Region 1						
Transmission element 1						
Transmission element 2 and so on						
Total						
Region 2						
Transmission element 1						
Transmission element 2 and so on						
Total						
Region 3						
Transmission element 1						
Transmission element 2 and so on						
etc.						
Total						
Total						
RLDC						
Total						

[1] Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc. [2] Currency refers to currency of loan such as US$, DM, Yen,Indian Rupee etc.

[3] Details are to be submitted as on 31.03._____ for existing assets and as on COD for the remaining assets.

[4] Where the loan has been refinanced, details in the Form are to be given for the loan refinaced. However, the details of the original loan are to be given seperately in the same form.

[5] If the Tariff in the petition is claimed seperately for various transmission elements, details in the Form are to be given seperately for all the transmission elements in the same form.

[6] Interest type means whether the interest is fixed or floating.

[7] Base rate means the base as PLR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

[8] Margin means the points over and above the floating rate.

[9] At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.

[10] Moratorium period refers to the period during which loan servicing liability is not required.

[11] Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

[12] Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc. [13] Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayement and its allocation may also be given seperately

[14] If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment

schedule to be furnished seperately.

15 In case of Foreign loan,date of each drawal & repayment alongwith exchange rate as on that date may be given.

16 Base exchange rate means the exchange rate prevailing as on 31.03._____ for existing assets and as on COD for the remaining assets.

APPLICANT

FORM-9
Statement of Additional Capitalisation after COD

Name of theTransmission Licensee : _____

Name of the Project :
Name of Region: _____

COD _____

Sl.No.	Year	Work/Equipment added after COD upto Cut off Date / Beyond Cut off Date	Amount Capitalised / Proposed to be capitalised	Justification	Admitted Costı
(1)	(2)	(3)	(4)	(5)	(6)
	Total				

1.Separate statements of Additional Capitalisation for (1) after COD and upto Cut off date; and (2) beyond Cut off date are to be furnished.

2. In case the project has been completed and any tariff notification(s) has / have already been issued in the past by GOI or any other authority, fill column 6 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order)

Note:

1 Fill the form in chronological order year wise along with detailed justification and clearly bring out the necessity and the benefits accruing to the benficiaries.

2 In case initial spares are purchased alongwith any equipment, then the cost of such spares should be indicated separately.

APPLICANT

FORM- 10

Financing of Additional Capitalisation

Name of the Company _____ **Name**
of the Project : _____ **Name**
of the Transmission Element : _____ **Date**
of Commercial Operation _____

(Amount in lakhs)

	Actual				
Financial Year (Starting from COD)	**Year1**	**Year2**	**Year3**	**Year4**	**Year 5**
1	**2**	**3**	**4**	**5**	**6**
Amount capitalised in Work/Equipment					
Financing Details					
Loan-1					
Loan-2					
Loan-3 and so on					
Total Loan[2]					
Equity					
Internal Resources					
Others					
Total					

[1] Year 1 refers to Financial Year of COD and Year 2, Year 3 etc. are the subsequent financial years respectively.

FORM- 11

Statement of Depreciation

Name of the Company
Name of the Project :
Name of the Transmission Element :

_____
_____
_____

(Amount in lakhs)

Financial Year	**Upto 2005-06[1]**	**2006-07**	**2007-08**	**2008-09**
1	**2**	**3**	**4**	**5**
Depreciation on Capital Cost				
Depreciation on Additional Capitalisation				
Amount of Additional Capitalisation				
Depreciation Amount				
Details of FERV				
Amount of FERV on which depreciation is charged				
Depreciation amount				
Depreciation recovered during the Year				
Advance against Depreciation recovered during the Year				
Total of Depreciation & Advance against Depreciation recovered during the year				
Cumulative Depreciation & Advance against Depreciation recovered upto the year				

Depreciation recovered in Tariff upto_____ to be furnished with yaerwise details in the same form seperately with supporting details..

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FORM-

12 Calculation of Depreciation Rate

Name of the Company
Name of the Project :
Name of the Transmission Element :

_____ _____ _____

(Amount in lakhs)

Sl. no.	**Name of the Assets[1]**	**Cost of asset as on 31.03.____ or as on COD, whichever is later**	**Depreciation Rates as per Schedule approved by CERC**	**Depreciation Amount**
	1	**2**	**3**	**4(Col.2 X Col.3)**
1	Land			
2	Building			
3	and so on			
4				
5				
6				
7				
8				
9				
10				
18				
19				
20				

21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
	TOTAL			
	Weighted Average Depreciation Rate (%)			

1 Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule approved by CERC.

APPLICANT

FORM- 13

Calculation of Weighted Average Rate of Interest on Actual Loans1

Name of the Company
Name of the Project :
Name of the Transmission Element :

(Amount in lacs)

Sl. no.	Particulars	2005-06	2006-07	2007-08	2008-09	2009 -10
1	2	3	4	5	6	7
	Loan-1					
	Gross loan - Opening					
	Cumulative repayments of Loans upto previous year					
	Net loan - Opening					
	Repayment (s) of Loans during the year					
	Interest on loan					
	Net loan - Closing					
	Average Net Loan					
	Rate of Interest on Loan					
	Interest on loan					
	Loan-2					
	Gross loan - Opening					
	Cumulative repayments of Loans upto previous year					
	Net loan - Opening					
	Increase / decrease due to FERV					
	Increase / decrease due to ACE					
	Total					
	Repayment (s) of Loans during the year					
	Net loan - Closing					
	Average Net Loan					
	Rate of Interest on Loan					
	Interest on loan					
	Loan-3 and so on					
	Gross loan - Opening					
	Cumulative repayments of Loans upto previous year					
	Net loan - Opening					
	Increase / decrease due to FERV					
	Increase / decrease due to ACE					
	Total					
	Repayment (s) of Loans during the year					
	Net loan - Closing					
	Average Net Loan					
	Rate of Interest on Loan					
	Interest on loan					
	Total Loan					
	Gross loan - Opening					

	Cumulative repayments of Loans upto previous year					
	Net loan - Opening					
	Increase / decrease due to FERV					
	Increase / decrease due to ACE					
	Total					
	Repayment (s) of Loans during the year					
	Net loan - Closing					
	Average Net Loan					
	Interest on loan					
	Weighted average Rate of Interest on Loans					

1 In case of Foreign Loans, the calculations in Indian Rupees is to be furnished. However, the calculations in Orginal currency is also to be furnished seperately in the same form.

APPLICANT

FORM- 14

Calculation of Advance Against Depreciation (AAD)

Name of the Company
Name of the Project :
Name of the Transmission Element :

_____
_____
_____

(Amount in lakhs)

Particulars	Existing 2005-06	2006-07	2007-08	2008-09	
1	2	3	4	5	
1/10th of the Loan(s)					
Repayment of the Loan(s) as considered for working out Interest on Loan					
Minimum of the Above					
Less:Depreciation during the year					
(A_1)					
Cumulative Repayment of the Loan(s) as considered for working out Interest on Loan					
Less: Cumulative Depreciation					
(B_1)					
Advance Against Depreciation (Minimum of A & B)					

1 If the amount is negative, it will be shown as zero.

APPLICANT

FORM- 15

Calculation of Interest on Working Capital

Name of the Company
Name of the Project :
Name of the Transmission Element :

_____
_____
_____

(Amount in lakhs)

Sl. No.	Particulars	Existing 2005-06	2006-07	2007-08	2008-09	
1	2	3	4	5	6	
1	1O & M expenses					
2	2Maintenance Spares					
3	3Recievables					
	Total Working Capital					
	Rate of Interest					
	Interest on Working Capital					

APPLICANT

FORM- 16

Name of theTransmission Licensee : _____
Name of the Project : _____
Name of Region: _____

Draw Down Schedule for Calculation of IDC & Financing Charges

(Amount in Lakhs)

Sl. No.	Draw Down Particulars	Quarter 1			Quarter 2			Quarter (COD)		
		Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee
1	**1Loans**									
1.1	**1.1Foreign Loans**									
1.1.1	1.1.1**Foreign Loan 1**									
	Draw down Amount									
	IDC									
	Financing charges									
1.1.2	1.1.2**Foreign Loan 2**									
	Draw down Amount									
	IDC									
	Financing charges									
1.1.3	1.1.3**Foreign Loan 3**									
	Draw down Amount									
	IDC									
	Financing charges									
1.1.4	- -									
	- -									
	- -									
1.1	1.1**Total Foreign Loans**									
	Draw down Amount									
	IDC									
	Financing charges									
1.2	**1.2Indian Loans**									
1.2.1	1.2.1**Indian Loan 1**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1.2.2	1.2.2**Indian Loan 2**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1.2.3	1.2.3**Indian Loan 3**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1.2.4	- -	--	--		--	--		--	--	
	- -	--	--		--	--		--	--	
	- -	--	--		--	--		--	--	
1.2	1.2**Total Indian Loans**									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1	1**Total of Loans drawn**									
	IDC									
	Financing charges									
2	2**Equity**									
2.1	**Foreign equity drawn**									
2.2	2.2**Indian equity drawn**	--	--		--	--		--	--	
	Total equity deployed									

Note: Drawal of debt and equity shall be on paripassu basis to meet the commissioning schedule.

APPLICANT

FORM – 17

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Name of the Company / Utility :_____

Name of the Power Station : _____

(Rs. In Lakhs)

		ITEMS	2002-03	2003-04 3	2004-05 4	2005-06 5	2006-07
		1	2				6
(A)		Breakup of O&M expenses					
	1	1 Consumption of Stores and Spares					
	2	2 Repair and Maintenance					
	3	3 Insurance					
	4	4 Security					
	5	5 Administrarive Expenses					
		- Rent					
		- Electricity Charges					
		- Travelling and conveyance					
		- Telephone, telex and postage					
		- Advertising					
		- Entertainment					
		- Others (Specify items)					
		Sub-Total (Administrative Expenses)					
	6	6 Employee Cost					
		a) Salaries, wages and allowances					
		b) Staff welfare expenses					
		c) Productivity linked incentive					
	7	7 Corporate office expenses allocation					
	8	8 Total (1 to 8)					
		LESS: Recovered , if any					
		Net Expenses					

Notes:
I. The process of allocation of corporate expenses to generating stations should be specified II. An annual increase in O&M expenses under a given head in excess of 20 percent should be explained
III. The data should be based on audited balance sheets

(B)	Breakup of corporate expenses (Aggregate)					
	- Employee expenses					
	- Repair and maintenance					
	- Training and Recruitment					
	- Communication					
	- Travelling					
	- Security					
	- Rent					
	- Others					
	Total					
(C)	Details of number of Employees					
	I) Executives					
	ii) Non-Executives					
	iii) Skilled					
	iv) Non-Skilled					
	Total					

(APPLICANT)

[7] Appendix – C (i)

Time schedule for completion of various transmission system

S. No.	Transmission Work	Plain Area (months)	Difficult Hilly Terrain / Forest Area (months)
a	765 kV S/C Transmission line	30	36

b	+/-500 KV HVDC Transmission line	24	30
c	400 KV D/C Quad Transmission line	32	38
d	400 KV D/C Triple Transmission line	30	36
e	400 KV D/C Twin Transmission line	28	34
f	400 KV S/C Twin Transmission line	24	30
g	220KV D/C Twin Transmission line	28	34
h	220 KV D/C Transmission line	24	30
i	220 KV S/C Transmission line	20	26
j	132 KV D/C Transmission line	20	26
i	132 KV S/C Transmission line	16	22
l	132 KV/33 KV AC Sub-Station	12	15
m	New 220 KV AC Sub-Station	18	21
n	New 400 KV AC Sub-Station	24	27
o	New 765 kV AC Sub-Station	30	34
p	HVDC bi-pole terminal	36	38
q	HVDC back-to-back	26	28

7. Appended under Regulation 73(2)(c)(i) by the BERC (Terms and Conditions for Determination of Tariff) [2nd Amendment] Regulations, 2014 vide Bihar Gazette No. 324 dated 27th March, 2014 (w.e.f. 27.03.2014)