



COMPENDIUM OF REGULATIONS 2021

VOLUME-I



**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI
DECEMBER 2021**



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केन्द्रीय विद्युत विनियामक आयोग
CENTRAL ELECTRICITY REGULATORY COMMISSION



Shri P. K. Pujari
Chairperson

Preface

The Electricity Act, 2003 mandates the Central Electricity Regulatory Commission with a host of responsibilities, which inter alia include, framing regulations, determination of tariff, adjudication of disputes, market development etc. In pursuance of the mandate, the Commission, over the period, has notified Regulations in different areas of operation of the electricity sector.

In furtherance of its efforts, the Commission takes note of changing sectoral dynamics and notifies Amendments to the Regulations. The Principal Regulations as well as the Amendments to the Regulations are essentially aimed at bringing in regulatory certainty and providing clarity to the stakeholders.

The Commission, has recognised that stakeholder need a comprehensive compendium comprising of all Principal Regulations as well as Amendments to the Regulations, which can act as a useful source for reference. Accordingly, it brought out Compendium of Regulations in two volumes during 2015. This publication was well received by the Stakeholders.

Since then, in excess of 40 Regulations/Amendments to Regulations have been notified by the Commission. The Commission, therefore, decided to publish a fresh set of Compendium of Regulations consisting of new Regulations and Amendments to the existing Regulations notified since 2015.

The Commission hopes that the updated Compendium will continue to remain a valuable resource for reference for the stakeholders.

New Delhi
27.12.2021


(Shri P. K. Pujari)

VOLUME-I

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CENTRAL ELECTRICITY REGULATORY COMMISSION

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Dated 7th March, 2019

NOTIFICATION

In exercise of powers conferred under section 178 of the Electricity Act, 2003 (36 of 2003) read with Section 61 thereof and all other powers enabling it in this behalf, and after previous publication, the Central Electricity Regulatory Commission hereby makes the following regulations, namely:

CHAPTER – 1
PRELIMINARY

1. **Short title and commencement.** (1) These regulations may be called the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- (2) These regulations shall come into force on 1.4.2019, and unless reviewed earlier or extended by the Commission, shall remain in force for a period of five years from 1.4.2019 to 31.3.2024:

Provided that where a generating station or unit thereof and transmission system or an element thereof, has been declared under commercial operation before the date of commencement of these regulations and whose tariff has not been finally determined by the Commission till that date, tariff in respect of such generating station or unit thereof and transmission system or an element thereof for the period ending 31.3.2019 shall be determined in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 as amended from time to time.

2. Scope and extent of application. (1) These regulations shall apply in all cases where tariff for a generating station or a unit thereof and a transmission system or an element thereof is required to be determined by the Commission under section 62 of the Act read with section 79 thereof:

Provided that any generating station for which agreement(s) have been executed for supply of electricity to the beneficiaries on or before 5.12.2011 and the financial closure for the said generating station has not been achieved by 31.3.2019, such projects shall not be eligible for determination of tariff under these regulations unless fresh consent of the beneficiaries is obtained and furnished.

[(1a) These regulations shall apply in all cases where a generating company has the arrangement for supply of coal or lignite from the integrated mine(s) allocated to it, for one or more of its specified end use generating stations, whose tariff is required to be determined by the Commission under section 62 of the Act read with section 79

thereof.]¹

(2) These regulations shall not apply to the following cases:-

- (a) Generating stations or transmission systems whose tariff has been discovered through tariff based competitive bidding in accordance with the guidelines issued by the Central Government and adopted by the Commission under section 63 of the Act;
- (b) Generating stations based on renewable sources of energy whose tariff is determined in accordance with the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2017.

3. Definitions. - In these regulations, unless the context otherwise requires:-

- (1) 'Act' means the Electricity Act, 2003 (36 of 2003);
- (2) 'Additional Capital expenditure' means the capital expenditure incurred, or projected to be incurred after the date of commercial operation of the project by the generating company or the transmission licensee, as the case may be, in accordance with the provisions of these regulations;
- (3) 'Additional Capitalisation' means the additional capital expenditure admitted by the Commission after prudence check, in accordance with these regulations;

¹ Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

(4) **‘Admitted capital cost’** means the capital cost which has been allowed by the Commission for servicing through tariff after due prudence check in accordance with the relevant tariff regulations;

[(4a) **‘Annual Target Quantity’** or **‘ATQ’** in respect of an integrated mine(s) means the quantity of coal or lignite to be extracted during a year from such integrated mine(s) as specified in the Mining Plan:

Provided that in case the integrated mine(s) of coal or lignite is ready for supply of coal or lignite as per the Mining Plan but is prevented due to reasons not attributable to the generating company, the Commission may relax the Annual Target Quantity up to a maximum of 15% of the quantity of coal or lignite to be extracted during a year as specified in the Mining Plan.]²

(5) **‘Auxiliary Energy Consumption’** or **‘AUX’** in relation to a period in case of a generating station means the quantum of energy consumed by auxiliary equipment of the generating station, such as the equipment being used for the purpose of operating plant and machinery including switchyard of the generating station and the transformer losses within the generating station, expressed as a percentage of the sum of gross energy generated at the generator terminals of all the units of the generating station;

Provided that auxiliary energy consumption shall not include energy consumed

² Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

for supply of power to housing colony and other facilities at the generating station and the power consumed for construction works at the generating station and [integrated mine(s)]³;

Provided further that auxiliary energy consumption for compliance of revised emission standards, sewage treatment plant and external coal handling plant (jetty and associated infrastructure) shall be considered separately.

[(5a) '**Auxiliary energy consumption for emission control system**' or '**AUX_e**' in relation to a period in case of coal or lignite based thermal generating station means the quantum of energy consumed by auxiliary equipment of the emission control system of the coal or lignite based thermal generating station in addition to the auxiliary energy consumption under clause (5) of this Regulation;]⁴

(6) '**Auditor**' means an auditor appointed by a generating company or a transmission licensee, as the case may be, in accordance with the provisions of sections 224, 233B and 619 of the Companies Act, 1956 (1 of 1956), as amended from time to time or Chapter X of the Companies Act, 2013 (18 of 2013) or any other law for the time being in force;

(7) '**Bank Rate**' means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;

(8) '**Beneficiary**' in relation to a generating station covered under clauses (a) or (b) of

³ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

⁴ Inserted *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

sub-section 1 of section 79 of the Act, means a distribution licensee who is purchasing electricity generated at such generating station by entering into a Power Purchase Agreement either directly or through a trading licensee on payment of capacity charges and energy charges;

Provided that where the distribution licensee is procuring power through a trading licensee, the arrangement shall be secured by the trading licensee through back to back power purchase agreement and power sale agreement.

Provided further that beneficiary shall also include any person who has been allocated capacity in any inter-State generating station by Government of India.

[(9) '**Capital Cost**' means the capital cost as determined in Regulation 19 of these regulations in respect of generating station or transmission system, as the case may be, and Regulation 36D of these regulations in respect of integrated mine(s).]⁵;

(10) '**Change in Law**' means occurrence of any of the following events:

- (a) enactment, bringing into effect or promulgation of any new Indian law; or
- (b) adoption, amendment, modification, repeal or re-enactment of any existing Indian law; or
- (c) change in interpretation or application of any Indian law by a competent court, Tribunal or Indian Governmental Instrumentality which is the final authority under law for such interpretation or application; or

⁵ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

- (d) change by any competent statutory authority in any condition or covenant of any consent or clearances or approval or licence available or obtained for the project; or
- (e) coming into force or change in any bilateral or multilateral agreement or treaty between the Government of India and any other Sovereign Government having implication for the generating station or the transmission system regulated under these regulations.

(11) '**Commission**' means the Central Electricity Regulatory Commission referred to in sub-section (1) of section 76 of the Act;

(12) '**Communication System**' means communication system as defined in sub clause (h) of clause (i) of Regulation 2 of the Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity) Regulations, 2017;

(13) '**Competitive Bidding**' means a transparent process for procurement of equipment, services and works in which bids are invited by the project developer by open advertisement covering the scope and specifications of the equipment, services and works required for the project, and the terms and conditions of the proposed contract as well as the criteria by which bids shall be evaluated, and shall include domestic competitive bidding and international competitive bidding;

(14) '**Cut-off Date**' means the last day of the calendar month after thirty six months from the date of commercial operation of the project [except in case of integrated

mine(s)]⁶;

[(15) '**Date of Commercial Operation**' or **COD**' in respect of a thermal generating station or hydro generating station or transmission system or communication system shall have the same meaning as defined in the Grid Code, as amended from time to time:

Provided that Date of Commercial Operation of integrated mine(s) shall have the same meaning as specified in Regulation 5 of these regulations;]⁷

[(15a) '**Date of Operation**' or '**ODe**' in respect of an emission control system means the date of putting the emission control system into use after meeting all applicable technical and environmental standards, certified through the Management Certificate duly signed by an authorised person, not below the level of Director of the generating company;]⁸

[(15b) '**Date of Commencement of Production**' in respect of integrated mine(s) means the date of touching of coal or lignite, as the case may be, as declared by the generating company;]⁹

⁶ Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

⁷ Substituted *vide* Second Amendment Regulations, 2020 *w.e.f* 01.04.2019

⁸ Inserted *vide* First Amendment Regulations, 2021 *w.e.f* 03.02.2021

⁹ Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

(16) **'Declared Capacity' or 'DC'** in relation to a generating station means, the capability to deliver ex-bus electricity in MW declared by such generating station in relation to any time-block of the day as defined in the Grid Code or whole of the day, duly taking into account the availability of fuel or water, and subject to further qualification in these regulations;

(17) **'De-capitalisation'** for the purpose of the tariff under these regulations, means reduction in Gross Fixed Assets of the project as admitted by the Commission corresponding to inter-unit transfer of assets or the assets taken out from service;

(18) **'De-commissioning'** means removal from service of a generating station or a unit thereof or transmission system including communication system or element thereof, after it is certified by the Central Electricity Authority or any other authorized agency, either on its own or on an application made by the project developer or the beneficiaries or both, that the project cannot be operated due to non-performance of the assets on account of technological obsolescence or uneconomic operation or a combination of these factors;

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

(20) **'Element'** means an asset which has been distinctively defined under the scope of the transmission project in the Investment Approval such as transmission lines including line bays and line reactors, substations, bays, compensation device,

Interconnecting Transformers;

[(20a) '**emission control system**' means a set of equipment or devices required to be installed in coal or lignite based thermal generating station or unit thereof to meet the revised emission standards;]¹⁰

[(20b) '**Escrow account**' means the account for deposit and withdrawal of mine closure expenses of integrated mine(s), maintained in accordance with the guidelines issued by the Coal Controller, Ministry of Coal, Government of India;]¹¹

[(21) '**Existing Project**' means the generating station and the transmission system which has been declared under commercial operation on a date prior to 1.4.2019;]¹²

(22) '**Expansion project**' shall include any addition of new capacity to the existing generating station or augmentation of the transmission system, as the case may be;

(23) '**Expenditure Incurred**' means the fund, whether the equity or debt or both, actually deployed and paid in cash or cash equivalent, for creation or acquisition of a useful asset and does not include commitments or liabilities for which no payment has been released;

(24) '**Extended Life**' means the life of a generating station or unit thereof or transmission system or element thereof beyond the period of useful life, as may be

¹⁰ Inserted *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

¹¹ Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

¹² Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

determined by the Commission on case to case basis;

(25) '**Force Majeure**' for the purpose of these regulations means the events or circumstances or combination of events or circumstances including those stated below which partly or fully prevents the generating company or transmission licensee to complete the project within the time specified in the Investment Approval, and only if such events or circumstances are not within the control of the generating company or transmission licensee and could not have been avoided, had the generating company or transmission licensee taken reasonable care or complied with prudent utility practices:

- (a) Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years; or
- (b) Any act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action; or
- (c) Industry wide strikes and labour disturbances having a nationwide impact in India; or
- (d) Delay in obtaining statutory approval for the project except where the delay is attributable to project developer;

(26) '**Fuel Supply Agreement**' means the agreement executed between the generating company and the fuel supplier for generation and supply of electricity to the

beneficiaries;

(27) **‘Generating Station’** shall have the same meaning as defined under sub-Section 30 of Section 2 of the Act and for the purpose of these regulations shall also include stages or blocks or units of a generating station;

(28) **‘Generating Unit’ or ‘Unit’** in relation to a thermal generating station (other than combined cycle thermal generating station) means steam generator, turbine-generator and auxiliaries, or in relation to a combined cycle thermal generating station, means turbine-generator and auxiliaries or combustion turbine-generator, associated waste heat recovery boiler, connected steam turbine- generator and auxiliaries, and in relation to a hydro generating station means turbine-generator and its auxiliaries;

(29) **‘Grid Code’** means the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010;

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

(31) **‘GCV as Received’** means the GCV of coal as measured at the unloading point of the thermal generating station through collection, preparation and testing of samples from the loaded wagons, trucks, ropeways, Merry Go-Round (MGR), belt conveyors and ships in accordance with the IS 436 (Part-1/ Section 1)- 1964:

Provided that the measurement of coal shall be carried out through sampling by third party to be appointed by the generating companies in accordance with the guidelines, if any, issued by Central Government:

Provided further that samples of coal shall be collected either manually or through hydraulic augur or through any other method considered suitable keeping in view the safety of personnel and equipment:

Provided also that the generating companies may adopt any advance technology for collection, preparation and testing of samples for measurement of GCV in a fair and transparent manner;

(32) '**Gross Station Heat Rate**' or '**SHR**' means the heat energy input in kCal required to generate one kWh of electrical energy at generator terminals of a thermal generating station;

(33) '**Implementation Agreement**' means any agreement or covenant entered into (i) between the transmission licensee and the generating company or (ii) between transmission licensee and developer of the interconnected transmission system for the execution of generation and transmission projects in a coordinated manner, laying down the project implementation schedule and mechanism for monitoring the progress of the projects;

(34) '**Indian Governmental Instrumentality**' means the Government of India, Governments of State (where the project is located) and any ministry or department or

board or agency controlled by Government of India or Government of State where the project is located, or quasi-judicial authority constituted under the relevant statutes in India;

(35) '**Infirm Power**' means electricity injected into the grid prior to the date of commercial operation of a unit of the generating station in accordance with Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009;

(36) '**Input Price**' means the price of coal or [the price of lignite (including transfer price of lignite in respect of existing lignite mines)]¹³ sourced from the integrated mines at which the coal or lignite is transferred to the generating station for the purpose of computing the energy charges for generation and supply of electricity to the beneficiaries and determined in accordance with Chapter 9 of these regulations;

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

(38) '**Integrated Mine**' means the captive mine (allocated for use in one or more identified generating station) or basket mine (allocated to a generating company for use in any of its generating stations) or both being developed by the generating company

¹³ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

for supply of coal or lignite to one or more specified end use generating stations for generation and sale of electricity to the beneficiaries;

(39) '**Inter-State Generating Station**' or **ISGS** ' has the meaning as assigned in the Grid Code;

(40) '**Investment Approval**' means approval by the Board of the generating company or the transmission licensee or Cabinet Committee on Economic Affairs (CCEA) or any other competent authority conveying administrative sanction for the project including funding of the project and the timeline for the implementation of the project:

Provided that the date of Investment Approval shall reckon from the date of the resolution of the Board of the generating company or the transmission licensee where the Board is competent to accord such approval and from the date of sanction letter of competent authority in other cases;

[Provided further that in respect of the integrated mine(s), funding and timeline for implementation shall be indicated separately and distinctly in the Investment Approval;

Provided further that where investment approval includes both the generating station and the integrated mine(s), the funding and timeline for implementation of the integrated mine(s) shall be worked out and indicated separately and distinctly in the

Investment Approval.]¹⁴

(41) '**Landed Fuel Cost**' means the total cost of coal (including biomass in case of co-firing), lignite or the gas delivered at the unloading point of the generating station and shall include the base price or input price, washery charges wherever applicable, transportation cost (overseas or inland or both) and handling cost, charges for third party sampling and applicable statutory charges;

[(41A) '**Loading Point**' in respect of integrated mine(s) means the location of railway siding or silo or the coal handling plant or such other arrangements like conveyor belt, whichever is nearest to the mine, for despatch of coal or lignite, as the case may be;]¹⁵

(42) '**Long-Term Customer**' shall have the same meaning as 'Long Term Customer' as defined in the Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009;

(43) '**Maximum Continuous Rating**' or '**MCR**' in relation to a generating unit of the thermal generating station means the maximum continuous output at the generator terminals, guaranteed by the manufacturer at rated parameters, and in relation to a block of a combined cycle thermal generating station means the maximum continuous output at the generator terminals, guaranteed by the manufacturer with water or steam

¹⁴ Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

¹⁵ Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

injection (if applicable) and corrected to 50 Hz grid frequency and specified site conditions;

[(43a) **'Mine Infrastructure'** shall include assets of the integrated mine(s) such as tangible assets used for mining operations, being civil works, workshops, immovable winning equipment, foundations, embankments, pavements, electrical systems, communication systems, relief centres, site administrative offices, fixed installations, handling arrangements, crushing and conveying systems, railway sidings, pits, shafts, inclines, underground transport systems, hauling systems (except movable equipment unless the same is embedded in land for permanent beneficial enjoyment thereof), land demarcated for afforestation and land for rehabilitation and resettlement of persons affected by mining operations under the relevant law;

(43b) **'Mining Plan' or 'Mine Plan'** in respect of integrated mine(s) means a plan prepared in accordance with the provisions of the Mineral Concession Rules, 1960, as amended from time to time and approved under clause (b) of sub-section (2) of section 5 of the Mines and Minerals (Development and Rehabilitation) Act, 1957 by the Central Government or by the State Government, as the case may be;]¹⁶

(44) **'New Project'** means the generating station or unit thereof and the transmission system or element thereof achieving its commercial operation on or after 1.4.2019;

(45) **'Operation and Maintenance Expenses' or 'O&M expenses'** means the

¹⁶ Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

expenditure incurred for operation and maintenance of the project, or part thereof, and includes the expenditure on manpower, maintenance, repairs and maintenance spares, consumables, insurance and overheads and fuel other than used for generation of electricity[:]¹⁷

[Provided that for integrated mine(s), the Operation & Maintenance Expenses shall not include the mining charge paid to the Mine Developer and Operator, if any, engaged by the generating company and the mine closure expenses.]¹⁸

(46) '**Original Project Cost**' means the capital expenditure incurred by the generating company or the transmission licensee, as the case may be, within the original scope of the project up to the cut-off date, and as admitted by the Commission;

[46(a) '**Peak Rated Capacity**' in respect of integrated mine(s) means the peak rated capacity of the mine, as specified in the Mining Plan;]¹⁹

(47) '**Plant Availability Factor**' or '**(PAF)**' 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 in MW less the [auxiliary energy consumption and auxiliary energy consumption for emission control system as per these regulations]²⁰;

¹⁷ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

¹⁸ Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

¹⁹ Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

²⁰ Substituted *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

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

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

Where,

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

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

N = Number of time blocks during the period,

AUX_n = Normative auxiliary energy consumption as a percentage of gross energy generation; and

AUX_{en} = Normative auxiliary energy consumption for emission control system as a percentage of gross energy generation, wherever applicable.]²¹

(49) '**Procedure Regulations**' means the Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004;

(50) '**Project**' means:

i) in case of thermal generating station, all components of the thermal

²¹ Substituted *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

generating station and includes integrated coal mine, biomass pellet handling system, pollution control system, effluent treatment plan, as may be required;

- ii) in case of hydro generating station, all components of the hydro generating station and includes dam, intake water conductor system, power generating station, as apportioned to power generation; and
- iii) in case of transmission, all components of the transmission system including communication system;

(51) '**Prudence Check**' means scrutiny of reasonableness of any cost or expenditure incurred or proposed to be incurred in accordance with these regulations by the generating company or the transmission licensee, as the case may be;

(52) '**Pumped Storage Hydro Generating Station**' means a hydro generating station which generates power through energy stored in the form of water energy, pumped from a lower elevation reservoir to a higher elevation reservoir;

(53) '**Rated Voltage**' means the manufacturer's design voltage at which the transmission system is designed to operate and includes such lower voltage at which any transmission line is charged or for the time being charged, in consultation with long-term customers;

(54) '**Revised Emission Standards**' in respect of thermal generating station means the revised norms notified as per Environment (Protection) Amendment Rules, 2015 or any other Rules as may be notified from time to time;

(55) **‘Run-of-River Generating Station’** means a hydro generating station which does not have upstream pondage;

(56) **‘Run-of-River Generating Station with Pondage’** means a hydro generating station with sufficient pondage for meeting the diurnal variation of power demand;

(57) **‘Scheduled Commercial Operation Date or ‘SCOD’** shall mean the date(s) of commercial operation of a generating station or generating unit thereof or transmission system or element thereof and associated communication system as indicated in the Investment Approval or as agreed in power purchase agreement or transmission service agreement as the case may be, whichever is earlier;

(58) **‘Scheduled Energy’** means the quantum of energy scheduled by the concerned Load Despatch Centre to be injected into the grid by a generating station for a given time period;

(59) **‘Scheduled Generation’ or ‘SG’** at any time or for any period or time block means schedule of ex-bus generation in MW or MWh, given by the concerned Load Despatch Centre;

Note:

For open cycle 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. In such an event of reduction of scheduled generation of gas turbine generating station, the corresponding drawl schedule of beneficiaries shall be corrected in proportion to their scheduled drawl with adjustment of transmission losses on post facto basis.

(60) '**Sharing Regulations**' means Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses in inter-State Transmission System) Regulations, 2010;

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

(62) '**Start Date or Zero Date**' means the date indicated in the Investment Approval for commencement of implementation of the project and where no such date has been indicated, the date of Investment Approval shall be deemed to be Start Date or Zero Date;

(63) '**Statutory Charges**' comprises taxes, cess, duties, royalties and other charges levied through Acts of the Parliament or State Legislatures or by Indian Government Instrumentality under relevant statutes;

(64) '**Storage Type Generating Station**' means a hydro generating station associated with storage capacity to enable variation of generation of electricity according to demand;

(65) '**Thermal Generating Station**' means a generating station or a unit thereof that generates electricity using fossil fuels such as coal, lignite, gas, liquid fuel or combination of these as its primary source of energy or co-firing of biomass with coal;

(66) '**Transmission Line**' shall have the same meaning as defined in sub-section (72) of Section 2 of the Act;

(67) '**Transmission Service Agreement**' means the agreement entered into between the transmission licensee and the Designated ISTS Customers in accordance with the Sharing Regulations and shall include the Bulk Power Transmission Agreement and Long Term Access Agreement;

(68) '**Transmission System**' means a line or a group of lines with or without associated sub-station, equipment associated with transmission lines and sub-stations identified under the scheme as per the Investment Approval(s) and shall include associated communication system;

(69) '**Trial Operation**' in relation to transmission system shall have the same meaning as specified in Clause (5) of Regulation 6.3A of Grid Code;

(70) '**Trial Run**' in relation to generating station shall have the same meaning as

specified in Clause (3) of Regulation 6.3A of Grid Code;

(71) ‘**Sub-Station**’ shall have the same meaning as defined in sub-section (69) of section 2 of the Act;

(72) ‘**Unloading Point**’ means the point within the premises of the coal or lignite based thermal generating station where the coal or lignite is unloaded from the rake or truck or any other mode of transport;

(73) ‘**Useful Life**’ in relation to a unit of a generating station, integrated mines, transmission system and communication system from the date of commercial operation shall mean the following:

(a)	Coal/Lignite based thermal generating station	25 years
(b)	Gas/Liquid fuel based thermal generating station	25 years
(c)	AC and DC sub-station	25 years
(d)	Gas Insulated Substation (GIS)	25 years
(e)	Hydro generating station including pumped storage hydro generating stations	40 years
(f)	Transmission line (including HVAC & HVDC)	35 years
(g)	Communication system	15 years
[(h)	Integrated mine(s)	As per the Mining Plan] ²²

Provided that the extension of life of the projects beyond the completion of their

²² Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

useful life shall be decided by the Commission on case to case basis;

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

4. Interpretations:- In these regulations, unless the context otherwise requires:

(1) **‘Day’** means a calendar day consisting of 24 hours period starting at 0000 hours;

(2) **‘kCal’** means a unit of heat energy contents in mineral, measured in one kilo calories or one thousand calories of heat produced at any instantaneous period;

(3) **‘Kilowatt-Hour’ or ‘kWh’** means a unit of electrical energy, measured in one kilowatt or one thousand watts of power produced or consumed over a period of one hour;

(4) **‘Quarter’** means the period of three months commencing on the first day of April, July, October and January of each financial year in case of existing project, and in case of a new project, in respect of the first quarter, from the date of commercial operation to the last day of June, September, December or March, as the case may be;

[(4a) **‘tonne’** means a metric tonne of coal or lignite in respect of integrated mine(s);]²³

[(5) **‘Year’** means a financial year beginning from 1st April and ending on 31st March:

²³ Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

Provided that the first year in case of new project or integrated mine(s) shall commence from the date of commercial operation and end on the immediately following 31st March.]²⁴

(6) Reference to any Act, Rules and Regulations shall include amendment or consolidation or re-enactment thereof.

²⁴ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

CHAPTER – 2

DATE OF COMMERCIAL OPERATION

5. Date of Commercial Operation: (1) The date of commercial operation of a generating station or unit thereof or a transmission system or element thereof and associated communication system shall be determined in accordance with the provisions of the Grid Code.

(2) In case the transmission system or element thereof executed by a transmission licensee is ready for commercial operation but the interconnected generating station or the transmission system of other transmission licensee as per the agreed project implementation schedule is not ready for commercial operation, the transmission licensee may file petition before the Commission for approval of the date of commercial operation of such transmission system or element thereof:

Provided that the transmission licensee seeking the approval of the date of commercial operation under this clause shall give prior notice of at least one month, to the generating company or the other transmission licensee and the long term customers of its transmission system, as the case may be, regarding the date of commercial operation:

Provided further that the transmission licensee seeking the approval of the date of commercial operation of the transmission system under this clause shall be required to submit the following documents along with the petition:

- (a) Energisation certificate issued by the Regional Electrical Inspector under Central Electricity Authority;
- (b) Trial operation certificate issued by the concerned RLDC for charging element with or without electrical load;
- (c) Implementation Agreement, if any, executed by the parties;
- (d) Minutes of the coordination meetings or related correspondences regarding the monitoring of the progress of the generating station and transmission systems;
- (e) Notice issued by the transmission licensee as per the first proviso under this clause and the response;
- (f) Certificate of the CEO or MD of the company regarding the completion of the transmission system including associated communication system in all respects.

[(3) The date of commercial operation in case of integrated mine(s), shall mean the earliest of —

- a) the first date of the year succeeding the year in which 25% of the Peak Rated Capacity as per the Mining Plan is achieved; or
- b) the first date of the year succeeding the year in which the value of production estimated in accordance with Regulation 7A of these regulations, exceeds total expenditure in that year; or

- c) the date of two years from the date of commencement of production:

Provided that on earliest occurrence of any of the events under sub-clauses (a) to (c) of Clause (3) of this Regulation, the generating company shall declare the date of commercial operation of the integrated mine(s) under the relevant sub-clause with one week prior intimation to the beneficiaries of the end-use or associated generating station(s);

Provided further that in case the integrated mine(s) is ready for commercial operation but is prevented from declaration of the date of commercial operation for reasons not attributable to the generating company or its suppliers or contractors or the Mine Developer and Operator, the Commission, on an application made by the generating company, may approve such other date as the date of commercial operation as may be considered appropriate after considering the relevant reasons that prevented the declaration of the date of commercial operation under any of the sub-clauses of Clause (3) of this Regulation;

Provided also that the generating company seeking the approval of the date of commercial operation under the preceding proviso shall give prior notice of one month to the beneficiaries of the end-use or associated generating station(s) of the integrated mine(s) regarding the date of commercial operation.²⁵

²⁵ Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

[Deleted]²⁶

7. Sale of Infirm Power: Supply of infirm power shall be accounted as deviation and shall be paid for from the regional deviation settlement fund accounts in accordance with the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related matters) Regulations, 2014:

Provided that any revenue earned by the generating company from supply of infirm power after accounting for the fuel expenses shall be applied in adjusting the capital cost accordingly.

[7A. Supply of Coal or Lignite prior to the Date of Commercial Operation of Integrated Mine: The input price for supply of coal or lignite from the integrated mine(s) prior to their date of commercial operation shall be:

- (a) in case of coal, the estimated price available in the investment approval, or the notified price of Coal India Limited for the corresponding grade of coal supplied to the power sector, whichever is lower; and
- (b) in case of lignite, the estimated price available in the investment approval or the last available pooled lignite price as determined by the Commission for transfer price of lignite, whichever is lower:

²⁶ Deleted *vide* Second Amendment Regulations, 2021 *w.e.f* 13.09.2021

Provided that any revenue earned from supply of coal or lignite prior to the date of commercial operation of the integrated mine(s) shall be applied in adjusting the capital cost of the said integrated mine(s)]²⁷

²⁷ Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

CHAPTER - 3

PROCEDURE FOR TARIFF DETERMINATION

8. Tariff determination

(1) Tariff in respect of a generating station [and emission control system, wherever applicable,]²⁸ may be determined for the whole of the generating station or unit thereof, and tariff in respect of a transmission system may be determined for the whole of the transmission system or element thereof or associated communication system:

Provided that:

- (i) In case of commercial operation of all the units of a generating station or all elements of a transmission system prior to 1.4.2019, the generating company or the transmission licensee, as the case may be, shall file consolidated petition in respect of the entire generating station or transmission system for the purpose of determination of tariff for the period 1.4.2019 to 31.3.2024:
- (ii) In case of commercial operation of units of generating station or elements of the transmission system on or after 1.4.2019, the generating company or the transmission licensee shall file a consolidated petition, in accordance with the provisions of the Procedure Regulations, combining all the units of the generating station or all elements of the transmission system which are anticipated to achieve commercial operation during the next two months from the date of application:
- (iii) Tariff of the associated communication system forming part of transmission

²⁸ Inserted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

system which has achieved commercial operation prior to 1.4.2014 shall be as per the methodology approved by the Commission prior to 1.4.2014.

(2) Where only a part of the generation capacity of a generating station is tied up for supplying power to the beneficiaries through long term power purchase agreement, the units for such part capacity shall be clearly identified and in such cases, the tariff shall be determined for such identified capacity. Where the unit(s) corresponding to such part capacity cannot be identified, the tariff of the generating station may be determined with reference to the capital cost of the entire project, but tariff so determined shall be applicable corresponding to the part capacity contracted for supply to the beneficiaries.

(3) In case of expansion of existing generating station, the tariff shall be determined for the expanded capacity in accordance with these regulations:

Provided that the common infrastructure of existing generating station, shall be utilized for the expanded capacity and the benefit of new technology in the expanded capacity, as determined by the Commission, shall be extended to the existing capacity.

(4) Assets installed for implementation of the revised emission standards shall form part of the existing generation project and tariff thereof shall be determined separately [in accordance with the application filed under 4th proviso to clause (1) of Regulation 9 of these regulations.]²⁹

(5) Energy charge component of tariff of the generating station sourcing coal or lignite

²⁹ Substituted *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

from the integrated mine shall be determined based on the input price of coal or lignite, as the case may be, from such integrated mines:

Provided that the generating company shall maintain the account of the integrated mine separately and submit the cost of integrated mine, in accordance with these regulations, duly certified by the Auditor.

(6) Tariff of generating station using coal washery rejects developed by Central or State PSUs or Joint Venture between a Government Company and company other than Government Company shall be determined in accordance with these regulations:

Provided that in case of Joint Venture between a Government Company and a Company other than Government Company, the shareholding of the company other than Government Company either directly or through any of its subsidiary company or associate company shall not exceed 26% of the paid up share capital:

Provided further that the energy charge component of the tariff of such generating station or unit thereof shall be determined based on the fixed cost and the variable cost of the coal washery project:

Provided also that the Gross Calorific Value of coal rejects shall be as measured jointly by the generating company and the beneficiaries.

(7) In case of multi-purpose hydro schemes, with irrigation, flood control and power components, the capital cost chargeable to the power component of the scheme only shall be considered for determination of tariff.

(8) If an existing transmission project is granted licence under section 14 of the Act read with clause (c) of Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of grant of Transmission Licence for inter-State Transmission of electricity and related matters) Regulations, 2009, the tariff of such project shall be applicable from the date of grant of transmission licence or from the date as indicated in the transmission licence, as the case may be. In such cases, the applicant shall file petition as per **Annexure -I (Part III)** to these regulations, clearly demarcating the assets which form part of the business of generation and transmission, the value of such assets, source of funding and other relevant details after adjusting the cumulative depreciation and loan repayment, duly certified by the Auditor.

9. Application for determination of tariff

(1) The generating company or the transmission licensee may make an application for determination of tariff for new generating station or unit thereof or transmission system or element thereof in accordance with the Procedure Regulations within 60 days of the anticipated date of commercial operation:

Provided that where the transmission system comprises various elements, the transmission licensee shall file an application for determination of tariff for a group of elements on incurring of expenditure of not less than 70% of the cost envisaged in the Investment Approval or Rs. 200 Crore, whichever is lower, as on the anticipated date of commercial operation:

Provided further that the generating company or the transmission licensee, as the

case may be, shall submit Auditor Certificate and in case of non-availability of Auditor Certificate, a Management Certificate duly signed by an authorised person, not below the level of Director of the company, indicating the capital cost incurred as on the date of commercial operation and the projected additional capital expenditure for respective years of the tariff period 2019-24:

Provided also that where interim tariff of the generating station or unit thereof and the transmission system or element thereof including communication system has been determined based on Management Certificate, the generating company or the transmission licensee shall submit the Auditor Certificate not later than 60 days from date of granting interim tariff.

[Provided also that the generating company shall file an application for determination of supplementary tariff for the emission control system installed in coal or lignite based thermal generating station in accordance with these regulations not later than 60 days from the date of operation of such emission control system.]³⁰

(2) In case of an existing generating station or unit thereof, or transmission system or element thereof, the application shall be made by the generating company or the transmission licensee, as the case may be, by 31.10.2019, based on admitted capital cost including additional capital expenditure already admitted and incurred up to 31.3.2019 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2019-24 along

³⁰ Added *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

with the true up petition for the period 2014-19 in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014.

(3) In case of emission control system required to be installed in existing generating station or unit thereof to meet the revised emission standards, an application shall be made for determination of supplementary tariff (capacity charges or energy charge or both) based on the actual capital expenditure duly certified by the Auditor.

(4) Where the generating company has the arrangement for supply of coal or lignite from an integrated mine(s) to one or more of its generating stations, the generating company shall file a petition for determination of the input price for determining the energy charge along with the tariff petitions for one or more generating stations in accordance with the provision of Chapter 9 of these regulations[:]³¹

[Provided that a generating company with integrated mine(s) shall file a petition for determination of input price of coal or lignite from the integrated mine(s) not later than 60 days from the date of commercial operation of the integrated mine(s) or from the date of notification of these regulations, whichever is later and may also seek determination or revision of tariff of the concerned generating station(s) in accordance with these regulations.]³²

10. Determination of tariff

³¹ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

³² Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

(1) The generating company or the transmission licensee, as the case may be, shall file petition before the Commission as per **Annexure-I** to these regulations containing the details of underlying assumptions for the capital expenditure and additional capital expenditure incurred and projected to be incurred, wherever applicable.

[(1a) The generating company having integrated mine(s) shall file petition before the Commission as per **Annexure -I (Part IV)** to these regulations for determination of the input price of coal or lignite from the integrated mine(s) containing the details of expenditure incurred and projected to be incurred duly certified by the Auditor.]³³

(2) If the petition is inadequate in any respect as required under **Annexure-I** to these regulations, the application shall be returned to the generating company or transmission licensee, as the case may be, for resubmission of the petition within one month after rectifying the deficiencies as may be pointed out by the staff of the Commission.

(3) If the information furnished in the petition is in accordance with these regulations and is adequate for carrying out prudence check of the claims made, the Commission may consider granting interim tariff in case of new projects.

(4) In case of the existing projects, the generating company or the transmission licensee, as the case may be, shall continue to bill the beneficiaries or the long term customers at the capacity charges or the transmission charges respectively as approved

³³ Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

by the Commission and applicable as on 31.3.2019 for the period starting from 1.4.2019 till approval of final capacity charges or transmission charges by the Commission in accordance with these regulations:

Provided that the billing for energy charges w.e.f. 1.4.2019 shall be as per the operational norms specified in these regulations.

(5) The Commission shall grant final tariff in case of existing and new projects, after considering the replies received from the respondents, and suggestions and objections, if any, received from the general public and any other person permitted by the Commission including the consumers or consumer associations.

(6) The Commission may hear the petitioner, the respondents and any other person permitted including the consumers or consumer associations while granting interim or final tariff.

(7) The difference between the tariff determined in accordance with clauses (3) and (5) above and clauses (4) and (5) above, shall be recovered from or refunded to, the beneficiaries or the long term customers, as the case may be, with simple interest at the rate equal to the bank rate prevailing as on 1st April of the respective year of the tariff period, in six equal monthly instalments.

(8) Where the capital cost considered by the Commission on the basis of projected additional capital expenditure exceeds the actual additional capital expenditure

incurred on year to year basis by more than 10%, the generating company or the transmission licensee shall refund to the beneficiaries or the long term customers as the case may be, the tariff recovered corresponding to the additional capital expenditure not incurred, as approved by the Commission, along with interest at 1.20 times of the bank rate as prevalent on 1st April of the respective year.

(9) Where the capital cost considered by the Commission on the basis of projected additional capital expenditure falls short of the actual additional capital expenditure incurred by more than 10% on year to year basis, the generating company or the transmission licensee shall recover from the beneficiaries or the long term customers as the case may be, the shortfall in tariff corresponding to difference in additional capital expenditure, as approved by the Commission, along with interest at the bank rate as prevalent on 1st April of the respective year.

11. In-principle approval in specific circumstances: The generating company or the transmission licensee undertaking any additional capitalization on account of change in law events or force majeure conditions may file petition for in-principle approval for incurring such expenditure after prior notice to the beneficiaries or the long term customers, as the case may be, along with underlying assumptions, estimates and justification for such expenditure if the estimated expenditure exceeds 10% of the admitted capital cost of the project or Rs.100 Crore, whichever is lower.

[(2) The generating company undertaking any additional capitalization in integrated mine(s) on account of change in law events or force majeure conditions may, after intimating the beneficiaries, file petition for in-principle approval for incurring such expenditure, along with underlying assumptions, estimates and justification for such expenditure, if the estimated expenditure exceeds 10% of the admitted capital cost of the integrated mine(s) or Rs.100 crore, whichever is lower;]³⁴

12. Truing up of tariff for the period 2014-19: The tariff of the generating stations and the transmission systems for the period 2014-19 shall be trued up in accordance with the provisions of Regulation 8 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 along with the tariff petition for the period 2019-24. The capital cost admitted as on 31.3.2019 based on the truing up shall form the basis of the opening capital cost as on 1.4.2019 for the tariff determination for the period 2019-24.

13. Truing up of tariff for the period 2019-24: (1) The Commission shall carry out truing up exercise for the period 2019-24 along with the tariff petition filed for the next tariff period, for the following:

- a) the capital expenditure including additional capital expenditure incurred up to 31.3.2024, as admitted by the Commission after prudence check at the time of

³⁴ Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

truing up:

- b) the capital expenditure including additional capital expenditure incurred up to 31.3.2024, on account of Force Majeure and Change in Law.

[(1a) The input price of coal or lignite from the integrated mine(s) of the generating station(s) for the tariff period 2019-24 shall be trued up for:

- a) the capital expenditure including additional capital expenditure incurred up to 31.3.2024, as allowed by the Commission;
- b) the capital expenditure including additional capital expenditure incurred up to 31.3.2024, on account of Force Majeure and Change in Law, as admitted by the Commission.
- c) The Operation and Maintenance expenses in accordance with provisions of Regulation 36I.]³⁵

(2) The generating company or the transmission licensee, as the case may be, shall make an application, as per **Annexure -I** to these regulations, for carrying out truing up exercise in respect of the generating station or a unit thereof or the transmission system or an element thereof by 30.11.2024.

(3) The generating company or the transmission licensee, as the case may be, may make an application for interim truing up of tariff in the year 2021-22, if the annual

³⁵ Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

fixed cost increases by more than 20% over the annual fixed cost as determined by the Commission for the respective years of the tariff period:

Provided that if the actual additional capital expenditure falls short of the projected additional capital expenditure allowed under provisions of Chapter 7 of these regulations, the generating company or the transmission licensee, as the case may be, shall not be required to file any interim true up petition for this purpose and shall refund to the beneficiaries or the long term customers, as the case may be, the excess tariff recovered corresponding to the projected additional capital expenditure not incurred at the bank rate as on 1st April of the respective years, under intimation to the Commission:

Provided further that the generating company or the transmission licensee shall submit the complete details along with the calculations of the refunds made to the beneficiaries or the long term customers, as the case may be, at the time of true up.

(4) After truing up, if the tariff already recovered exceeds or falls short of the tariff approved by the Commission under these regulations, the generating company or the transmission licensee, shall refund to or recover from, the beneficiaries or the long term customers, as the case may be, the excess or the shortfall amount along with simple interest at the rate equal to the bank rate as on 1st April of the respective years of the tariff period in six equal monthly instalments.

[(4a) After truing up, if the input price already recovered exceeds or falls short of the

input price approved by the Commission under these regulations, the excess or the shortfall amount shall be refunded or recovered, as the case may be, by the generating company along with simple interest at the rate equal to the bank rate as on 1st April of the respective years of the tariff period in six equal monthly instalments:

Provided that the generating company shall refund such excess amount or recover the shortfall amount from the beneficiaries based on scheduled energy.]³⁶

³⁶ Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

CHAPTER – 4**TARIFF STRUCTURE**

14. Components of Tariff: (1) The tariff for supply of electricity from a thermal generating station shall comprise two parts, namely, capacity charge (for recovery of annual fixed cost consisting of the components as specified in Regulation 15 of these regulations) and energy charge (for recovery of primary and secondary fuel cost and cost of limestone and any other reagent, where applicable as specified in Regulation 16 of these regulations).

(2) The [Supplementary tariff consisting of supplementary capacity charges]³⁷ and supplementary energy charges, on account of implementation of revised emission standards in existing generating station or new generating station, as the case may be, shall be determined by the Commission separately.

(3) The capacity charge and energy charge of a generating station shall be determined in accordance with the provisions of Chapter 11 of these regulations. The input price of coal or lignite from the integrated mine as determined in accordance with the provisions of Chapter 9 of these regulations shall form part of energy charge of the generating station.

(4) The tariff for supply of electricity from a hydro generating station shall comprise capacity charge and energy charge to be derived in the manner specified in Regulation 44 or 45 of these regulations, as may be applicable, for recovery of annual fixed cost

³⁷ Substituted *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

consisting of the components referred to in Regulation 15 of these regulations.

(5) The tariff for transmission of electricity on inter-State transmission system shall comprise transmission charges for recovery of annual fixed cost consisting of the components specified in Regulation 15 of these regulations.

15. Capacity Charges:[(1)] ³⁸The capacity charges shall be derived on the basis of annual fixed cost. The Annual Fixed Cost (AFC) of a generating station or a transmission system including communication system shall consist of the following components:

- (a) Return on equity;
- (b) Interest on loan capital;
- (c) Depreciation; Interest on working capital; and
- (d) Operation and maintenance expenses:

Provided that Special Allowance in lieu of R&M, where opted in accordance with Regulation 28 of these regulations, shall be recovered separately and shall not be considered for computation of working capital.

[(2) Supplementary Capacity Charges: Supplementary capacity charges shall be derived on the basis of the Annual Fixed Cost for emission control system (AFCE). The Annual Fixed Cost for the emission control system shall consist of the components as listed at Sub-clauses (a) to (e) of Clause (1) of this Regulation.]³⁹

³⁸ Renumbered *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

³⁹ Added *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

16. Energy Charges: Energy charges shall be derived on the basis of the landed fuel cost (LFC) of a generating station (excluding hydro) and shall consist of the following cost:

- (a) Landed Fuel Cost of primary fuel;
- (b) Cost of secondary fuel oil consumption; and
- (c) Cost of limestone or any other reagent, as applicable:

Provided that any refund of taxes and duties along with any amount received on account of penalties from fuel supplier shall be adjusted in fuel cost:

Provided further that the supplementary energy charges, if any, on account of meeting the revised emission standards in case of a thermal generating station shall be determined separately by the Commission [as per Regulation 43 of these regulations.]⁴⁰

[Provided also that in case of supply of coal or lignite from the integrated mine(s), the landed cost of primary fuel shall be based on the input price of coal or lignite, as the case may be, as computed in accordance with these regulations.]⁴¹

17. Special Provisions for Tariff for Thermal Generating Station which have Completed 25 Years of Operation from Date of Commercial Operation: (1) In respect of a thermal generating station that has completed 25 years of operation from the date of commercial operation, the generating company and the beneficiary may agree on an arrangement, including provisions for target availability and incentive, where in addition to the energy charge, capacity charges determined under these regulations shall also be recovered based on scheduled generation.

⁴⁰ Inserted *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

⁴¹ Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

(2) The beneficiary shall have the first right of refusal and upon its refusal to enter into an arrangement as above, the generating company shall be free to sell the electricity generated from such station in a manner as it deems fit.

CHAPTER – 5

CAPITAL STRUCTURE

18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

Explanation-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the

generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.

[(6) Any expenditure incurred for the emission control system during the tariff period as may be admitted by the Commission as additional capital expenditure for determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation.]⁴²

⁴² Added *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

CHAPTER - 6

COMPUTATION OF CAPITAL COST

19. Capital Cost:(1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.

(2) The Capital Cost of a new project shall include the following:

- (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
- (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;

- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

- (3) The Capital cost of an existing project shall include the following:
- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
 - (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
 - (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
 - (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
 - (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
 - (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
- (4) The capital cost in case of existing or new hydro generating station shall also include:
- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
 - (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen

Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

(5) The following shall be excluded from the capital cost of the existing and new projects:

- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
- (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be de-capitalised only after its redeployment;

Provided further that unless shifting of an asset from one project to another is of permanent nature, there shall be no de-capitalization of the concerned assets.

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.

20. Prudence Check of Capital Cost : The following principles shall be adopted for prudence check of capital cost of the existing or new projects:

(1) In case of the thermal generating station and the transmission system, prudence check of capital cost shall include scrutiny of the capital expenditure, in the light of capital cost of similar projects based on past historical data, wherever available, reasonableness of financing plan, interest during construction, incidental expenditure during construction, use of efficient technology, cost over-run and time over-run, procurement of equipment and materials through competitive bidding and such other matters as may be considered appropriate by the Commission:

Provided that, while carrying out the prudence check, the Commission shall also examine whether the generating company or transmission licensee, as the case may be, has been careful in its judgments and decisions in execution of the project.

(2) The Commission may, for the purpose of vetting of capital cost of hydro generating stations, appoint an independent agency or an expert body:

Provided that the Designated Independent Agency already appointed under the guidelines issued by the Commission under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 shall continue till completion of the assigned project.

(3) Where the power purchase agreement entered into between the generating company and the beneficiaries provides for ceiling of actual capital expenditure, the Commission shall take into consideration such ceiling for prudence check.

(4) The generating company or the transmission licensee, as the case may be, shall

furnish the capital cost for execution of the existing and new projects as per **Annexure-I** to these regulations along with tariff petition for the purpose of creating a database of benchmark capital cost of various components.

21. Interest During Construction (IDC) and Incidental Expenditure during Construction (IEDC)

(1) Interest during construction (IDC) shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds upto SCOD.

(2) Incidental expenditure during construction (IEDC) shall be computed from the zero date, taking into account pre-operative expenses upto SCOD:

Provided that any revenue earned during construction period up to SCOD on account of interest on deposits or advances, or any other receipts shall be taken into account for reduction in incidental expenditure during construction.

(3) In case of additional costs on account of IDC and IEDC due to delay in achieving the COD, the generating company or the transmission licensee as the case may be, shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds in case of IDC and details of IEDC during the period of delay and liquidated damages recovered or recoverable corresponding to the delay.

(4) If the delay in achieving the COD is not attributable to the generating company or the transmission licensee, IDC and IEDC beyond SCOD may be allowed after prudence

check and the liquidated damages, if any, recovered from the contractor or supplier or agency shall be adjusted in the capital cost of the generating station or the transmission system, as the case may be.

(5) If the delay in achieving the COD is attributable [either in entirety or in part]⁴³ to the generating company or the transmission licensee or its contractor or supplier or agency, in such cases, IDC and IEDC beyond SCOD may be disallowed after prudence check either in entirety or on pro-rata basis corresponding to the period of delay not condoned and the liquidated damages, if any, recovered from the contractor or supplier or agency shall be retained by the generating company or the transmission licensee, as the case may be.

[(6) For the purpose of Clauses (4) and (5) of this Regulation, IDC on actual loan and normative loan shall be considered in accordance with sub-clause (b) of clause (2) of Regulation 19 of these regulations.]⁴⁴

⁴³ Substituted *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

⁴⁴ Added *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021 and applicable *w.e.f* 1st April, 2019

22. Controllable and Uncontrollable factors: The following shall be considered as controllable and uncontrollable factors for deciding time over -run, cost escalation, IDC and IEDC of the [new projects]⁴⁵:

(1) The “controllable factors” shall include but shall not be limited to the following:

- a. Efficiency in the implementation of the [new projects]⁴⁶ not involving approved change in scope of such [new projects]⁴⁷, change in statutory levies or change in law or force majeure events; and
- b. Delay in execution of the [new projects]⁴⁸ on account of contractor or supplier or agency of the generating company or transmission licensee.

(2) The “uncontrollable factors” shall include but shall not be limited to the following:

- a. Force Majeure events;
- b. Change in Law; and
- c. Land acquisition except where the delay is attributable to the generating company or the transmission licensee.

23. Initial Spares: Initial spares shall be capitalised as a percentage of the Plant and Machinery cost, subject to following ceiling norms:

- | | | | |
|-----|---|---|------|
| (a) | Coal-based/lignite-fired thermal generating stations | - | 4.0% |
| (b) | Gas Turbine/Combined Cycle thermal generating stations | - | 4.0% |
| (c) | Hydro generating stations including pumped storage hydro generating station | - | 4.0% |

⁴⁵ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

⁴⁶ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

⁴⁷ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

⁴⁸ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

(d) Transmission system

(i)	Transmission line	-	1.00%
(ii)	Transmission Sub-station		
	- Green Field	-	4.00%
	- Brown Field	-	6.00%
(iii)	Series Compensation devices and HVDC Station	-	4.00%
(iv)	Gas Insulated Sub-station (GIS)		
	- Green Field	-	5.00%
	- Brown Field	-	7.00%
(v)	Communication system	-	3.50%
(vi)	Static Synchronous Compensator	-	6.00%

Provided that:

- i. Plant and Machinery cost shall be considered as the original project cost excluding IDC, IEDC, Land Cost and Cost of Civil Works. The generating company and the transmission licensee for the purpose of estimating Plant and Machinery Cost, shall submit the break-up of head wise IDC and IEDC in its tariff application;
- ii. where the generating station has any transmission equipment forming part of the generation project, the ceiling norms for initial spares for such equipment shall be as per the ceiling norms specified for transmission system under these regulations.

- [iii. where the emission control system is installed, the norms of initial spares specified in this Regulation for coal or lignite based thermal generating station as the case may be, shall apply.]⁴⁹

⁴⁹ Added *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

CHAPTER – 7

COMPUTATION OF ADDITIONAL CAPITAL EXPENDITURE

24. Additional Capitalisation within the original scope and upto the cut-off date

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

- (a) Undischarged liabilities recognized to be payable at a future date;
- (b) Works deferred for execution;
- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;
- (e) Change in law or compliance of any existing law; and
- (f) Force Majeure events:

Provided that in case of any replacement of the assets, the additional capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization.

(2) The generating company or the transmission licensee, as the case may be shall submit the details of works asset wise/work wise included in the original scope of

work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution.

25. Additional Capitalisation within the original scope and after the cut-off date:

(1) The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;
- (b) Change in law or compliance of any existing law;
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (d) Liability for works executed prior to the cut-off date;
- (e) Force Majeure events;
- (f) Liability for works admitted by the Commission after the cut off date to the extent of discharge of such liabilities by actual payments; and
- (g) Raising of ash dyke as a part of ash disposal system.

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

- (a) The useful life of the assets is not commensurate with the useful life of the project

and such assets have been fully depreciated in accordance with the provisions of these regulations;

- (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.

26. Additional Capitalisation beyond the original scope

(1) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:

- (a) Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;
- (b) Change in law or compliance of any existing law;
- (c) Force Majeure events;
- (d) Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;
- (e) Deferred works relating to ash pond or ash handling system in addition to the original scope of work, on case to case basis:

Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M) or repairs and maintenance under O&M expenses, the same shall not be claimed under this Regulation;

(f) Usage of water from sewage treatment plant in thermal generating station.

(2) In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalised.

27. Additional Capitalisation on account of Renovation and Modernisation

(1) The generating company or the transmission licensee, as the case may be, intending to undertake renovation and modernization (R&M) of the generating station or unit thereof or transmission system or element thereof for the purpose of extension of life beyond the originally recognised useful life for the purpose of tariff, shall file a petition before the Commission for approval of the proposal with a Detailed Project Report giving complete scope, justification, cost-benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost including foreign exchange component, if any, and any other information considered to be relevant by the generating company or the transmission licensee:

Provided that the generating company making the applications for renovation and modernization (R&M) shall not be eligible for Special Allowance under Regulation 28 of these regulations;

Provided further that the generating company or the transmission licensee intending to undertake renovation and modernization (R&M) shall be required to obtain the consent of the beneficiaries or the long term customers, as the case may be, for such renovation and modernization (R&M) and submit the same along with the petition.

(2) Where the generating company or the transmission licensee, as the case may be, makes an application for approval of its proposal for renovation and modernisation (R&M), approval may be granted after due consideration of reasonableness of the proposed cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, expected duration of life extension, consent of the beneficiaries or long term customers, if obtained, and such other factors as may be considered relevant by the Commission.

(3) In case of gas/ liquid fuel based open/ combined cycle thermal generating station after 25 years of operation from date of commercial operation, any additional capital expenditure which has become necessary for renovation of gas turbines/steam turbine or additional capital expenditure necessary due to obsolescence or non-availability of spares for efficient operation of the stations shall be allowed:

Provided that any expenditure included in the renovation and modernisation (R&M) on consumables and cost of components and spares which is generally covered

in the O&M expenses during the major overhaul of gas turbine shall be suitably deducted from the expenditure to be allowed after prudence check.

(4) After completion of the renovation and modernisation (R&M), the generating company or the transmission licensee, as the case may be, shall file a petition for determination of tariff. Expenditure incurred or projected to be incurred and admitted by the Commission after prudence check, and after deducting the accumulated depreciation already recovered from the admitted project cost, shall form the basis for determination of tariff.

28. Special Allowance for Coal-based/Lignite fired Thermal Generating station

(1) In case of coal-based/lignite fired thermal generating stations, the generating company, instead of availing renovation and modernization (R&M) may opt to avail a 'special allowance' in accordance with the norms specified in this Regulation, as compensation for meeting the requirement of expenses including renovation and modernisation beyond the useful life of the generating station or a unit thereof and in such an event, upward revision of the capital cost shall not be allowed and the applicable operational norms shall not be relaxed but the Special Allowance shall be included in the annual fixed cost:

Provided that such option shall not be available for a generating station or unit thereof for which renovation and modernization has been undertaken and the expenditure has been admitted by the Commission before commencement of these regulations, or for a generating station or unit which is in a depleted condition or operating under relaxed operational and performance norms;

Provided further that special allowance shall also be available for a generating station which has availed the Special Allowance during the tariff period 2009-14 or 2014-19 as applicable from the date of completion of the useful life.

(2) The Special Allowance admissible to a generating station shall be @ Rs 9.5 lakh per MW per year for the tariff period 2019-24.

(3) In the event of a generating station availing Special Allowance, the expenditure incurred upon or utilized from Special Allowance shall be maintained separately by the generating station and details of same shall be made available to the Commission as and when directed.

(4) The Special Allowance allowed under this Regulation shall be transferred to a separate fund for utilization towards Renovation & Modernisation activities, for which detailed methodology shall be issued separately.

29. Additional Capitalization on account of Revised Emission Standards: (1) A generating company requiring to incur additional capital expenditure in the existing generating station for compliance of the revised emissions standards shall share its proposal with the beneficiaries and file a petition for undertaking such additional capitalization.

(2) The proposal under clause (1) above shall contain details of proposed technology as specified by the Central Electricity Authority, scope of the work, phasing of expenditure, schedule of completion, estimated completion cost including foreign exchange component, if any, detailed computation of indicative impact on tariff to the

beneficiaries, and any other information considered to be relevant by the generating company.

(3) Where the generating company makes an application for approval of additional capital expenditure on account of implementation of revised emission standards, the Commission may grant approval after due consideration of the reasonableness of the cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, and such other factors as may be considered relevant by the Commission.

(4) After completion of the implementation of revised emission standards, the generating company shall file a petition for determination of tariff. Any expenditure incurred or projected to be incurred and admitted by the Commission after prudence check based on reasonableness of the cost and impact on operational parameters shall form the basis of determination of tariff.

[(5) Un-discharged liability, if any, on account of emission control system shall be allowed as additional capital expenditure during the year it is discharged, subject to prudence check.]⁵⁰

⁵⁰ Added *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

CHAPTER – 8

COMPUTATION OF ANNUAL FIXED COST

30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

[Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope, excluding additional capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%]⁵¹;

⁵¹ Substituted *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

Provided further that:

- i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;
- ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;
- iii. in case of a thermal generating station, with effect from 1.4.2020:
 - a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
 - b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.

[(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODE) occurs plus 350 basis point, subject to ceiling of 14%;]⁵²

31. Tax on Return on Equity. (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where “t” is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the

⁵² Added *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

Illustration-

- (i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

$$\text{Rate of return on equity} = 15.50 / (1 - 0.2155) = 19.758\%$$

- (ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:

- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

- (b) Estimated Advance Tax for the year on above is Rs 240 crore;

- (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%;

- (d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.

- (3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any

financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.

32. Interest on loan capital: (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

(5) The rate of interest shall be the weighted average rate of interest calculated on

the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

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

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

[(5a) The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered.]⁵³

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or

⁵³ Inserted *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

the transmission system taking into consideration the depreciation of individual units:

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;

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

Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be

allowed to be recovered at a later stage during the useful life or the extended life.

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-I** to these regulations for the assets of the generating station and transmission system:

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

(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.

(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services.

[(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of —

- a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or
- b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or
- c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.]⁵⁴

⁵⁴ Added *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

34. Interest on Working Capital: (1) The working capital shall cover:

(a) For Coal-based/lignite-fired thermal generating stations:

- (i) Cost of coal or lignite and limestone towards stock, if applicable, for 10 days for pit-head generating stations and 20 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;
- (ii) Advance payment for 30 days towards cost of coal or lignite and limestone for generation corresponding to the normative annual plant availability factor;
- (iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;
- (iv) Maintenance spares @ 20% of operation and maintenance expenses including water charges and security expenses;
- (v) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on the normative annual plant availability factor; and
- (vi) Operation and maintenance expenses, including water charges and security expenses, for one month.

[(aa) For emission control system of coal or lignite based thermal generating stations:

- (i) Cost of limestone or reagent towards stock for 20 days corresponding to the normative annual plant availability factor;
- (ii) Advance payment for 30 days towards cost of reagent for generation corresponding to the normative annual plant availability factor;

- (iii) Receivables equivalent to 45 days of supplementary capacity charge and supplementary energy charge for sale of electricity calculated on the normative annual plant availability factor;
 - (iv) Operation and maintenance expenses in respect of emission control system for one month;
 - (v) Maintenance spares @20% of operation and maintenance expenses in respect of emission control system.]⁵⁵
- (b) For Open-cycle Gas Turbine/Combined Cycle thermal generating stations:**
- (i) Fuel cost for 30 days corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;
 - (ii) Liquid fuel stock for 15 days corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel, cost of main liquid fuel duly taking into account mode of operation of the generating stations of gas fuel and liquid fuel;
 - (iii) Maintenance spares @ 30% of operation and maintenance expenses including water charges and security expenses;
 - (iv) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel; and

⁵⁵ Inserted *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

(v) Operation and maintenance expenses, including water charges and security expenses, for one month.

(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:

- (i) Receivables equivalent to 45 days of annual fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
- (iii) Operation and maintenance expenses, including security expenses for one month.

(2) The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this Regulation shall be based on the landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) by the generating station and gross calorific value of the fuel as per actual weighted average for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined:

Provided that in case of new generating station, the cost of fuel for the first financial year shall be considered based on landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) and gross calorific value of the fuel as per actual weighted average for three months, as used for infirm power, preceding date of commercial operation for which tariff is to be determined.

(3) Rate of interest on working capital shall be on normative basis and shall be

considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.

35. Operation and Maintenance Expenses:

(1) **Thermal Generating Station:** Normative Operation and Maintenance expenses of thermal generating stations shall be as follows:

(1) Coal based and lignite fired (including those based on Circulating Fluidised Bed Combustion (CFBC) technology) generating stations, other than the generating stations or units referred to in clauses (2), (4) and (5) of this Regulation:

(in Rs Lakh/MW)					
Year	200/210/ 250 MW Series	300/330/ 350 MW Series	500 MW Series	600 MW Series	800 MW Series and above
FY 2019-20	32.96	27.74	22.51	20.26	18.23
FY 2020-21	34.12	28.71	23.30	20.97	18.87
FY 2021-22	35.31	29.72	24.12	21.71	19.54
FY 2022-23	36.56	30.76	24.97	22.47	20.22
FY 2023-24	37.84	31.84	25.84	23.26	20.93

Provided that where the date of commercial operation of any additional unit(s) of a generating station after first four units occurs on or after 1.4.2019, the O&M expenses of such additional unit(s) shall be admissible at 90% of the operation and maintenance expenses as specified above;

Provided further that operation and maintenance expenses of generating station and the transmission system of Bhakra Beas Management Board (BBMB) and Sardar Sarovar Project (SSP) shall be determined after taking into account provisions of the Punjab Reorganization Act, 1996 and Narmada Water Scheme, 1980 under Section-6 A of the Inter-State Water Disputes Act, 1956 respectively;

Provided also that operation and maintenance expenses of generating station having unit size of less than 200 MW not covered above shall be determined on case to case basis.

(2) Talcher Thermal Power Station (TPS), Tanda TPS and Chandrapura TPS Unit 3 and Durgapur TPS Unit 1 of DVC:

(in Rs Lakh/MW)		
Year	Talcher TPS	Chandrapura TPS (Unit 3), Tanda TPS, Durgapur TPS (Unit 1)
FY 2019-20 to FY 2023-24	56.34	46.16

(3) Open Cycle Gas Turbine/Combined Cycle generating stations:

(in Rs Lakh/MW)				
Year	Gas Turbine/ Combined Cycle generating stations other than small gas turbine power generating stations	Small gas turbine power generating stations	Agartala GPS	Advance F Class Machines
FY 2019-20	17.58	36.21	42.85	26.34

Year	Gas Turbine/ Combined Cycle generating stations other than small gas turbine power generating stations	Small gas turbine power generating stations	Agartala GPS	Advance F Class Machines
FY 2020-21	18.20	37.48	44.35	27.27
FY 2021-22	18.84	38.80	45.91	28.23
FY 2022-23	19.50	40.16	47.52	29.22
FY 2023-24	20.19	41.57	49.19	30.24

(4) **Lignite-fired generating stations:**

(in Rs Lakh/MW)

Year	125 MW Sets	TPS-I of NLC
FY 2019-20	31.15	42.91
FY 2020-21	32.24	44.42
FY 2021-22	33.37	45.98
FY 2022-23	34.54	47.59
FY 2023-24	35.76	49.26

(5) **Generating Stations based on coal rejects:**

(in Rs Lakh/MW)

Year	O&M Expenses
FY 2019-20	31.15
FY 2020-21	32.24
FY 2021-22	33.37
FY 2022-23	34.54
FY 2023-24	35.76

(6) The Water Charges, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately after prudence check:

Provided that water charges shall be allowed based on water consumption depending upon type of plant and type of cooling water system, subject to prudence check [and considering the norms of specific water consumption notified by the

Ministry of Environment, Forest and Climate Change]⁵⁶. The details regarding the same shall be furnished along with the petition;

Provided further that the generating station shall submit the assessment of the security requirement and estimated expenses;

Provided also that the generating station shall submit the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance as per Regulation 17 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 or Special Allowance or claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization.

[(7) The operation and maintenance expenses on account of emission control system in coal or lignite based thermal generating station shall be 2% of the admitted capital expenditure (excluding IDC and IEDC) as on its date of operation, which shall be escalated annually @3.5% during the tariff period ending on 31st March 2024:

Provided that income generated from sale of gypsum or other by-products shall be reduced from the operation and maintenance expenses.]⁵⁷

(2) Hydro Generating Station: (a) Following operations and maintenance expense norms shall be applicable for hydro generating stations which have been operational for three or more years as on 1.4.2019:

⁵⁶ Added *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

⁵⁷ Substituted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

(in Rs Lakh)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
THDC Stage I	27,788.87	29,113.44	30,501.14	31,955.00	33,478.15
KHEP	13,452.46	14,093.68	14,765.46	15,469.26	16,206.61
Bairasul	8,292.11	8,687.36	9,101.45	9,535.28	9,989.78
Loktak	9,538.27	9,992.91	10,469.23	10,968.25	11,491.06
Salal	19,207.75	20,123.29	21,082.48	22,087.39	23,140.19
Tanakpur	10,520.33	11,021.79	11,547.15	12,097.55	12,674.18
Chamera-I	11,773.57	12,334.77	12,922.71	13,538.68	14,184.00
Uri I	9,865.77	10,336.03	10,828.70	11,344.85	11,885.61
Rangit	5,336.17	5,590.53	5,857.00	6,136.18	6,428.66
Chamera-II	10,670.68	11,179.30	11,712.17	12,270.44	12,855.31
Dhauliganga	8,813.40	9,233.50	9,673.61	10,134.71	10,617.79
Dulhasti	18,563.04	19,447.85	20,374.84	21,346.02	22,363.49
Teesta-V	12,186.58	12,767.46	13,376.02	14,013.60	14,681.56
Sewa-II	7,079.34	7,416.78	7,770.31	8,140.68	8,528.71
TLDP III	7,539.76	7,899.14	8,275.66	8,670.12	9,083.39
Chamera III	9,078.72	9,511.46	9,964.83	10,439.81	10,937.43
Chutak	3,536.67	3,705.25	3,881.86	4,066.89	4,260.74
NimmoBazgo	3,527.43	3,695.57	3,871.72	4,056.27	4,249.61
Uri II	7,058.82	7,395.28	7,747.78	8,117.08	8,503.99
Parbati III	6,618.29	6,933.76	7,264.26	7,610.51	7,973.27
Indira Sagar	11,728.40	12,287.44	12,873.12	13,486.73	14,129.58
Omkareshwar	7,198.97	7,542.12	7,901.62	8,278.25	8,672.84
NapthaJhakari	33,326.11	34,914.62	36,578.84	38,322.39	40,149.04
Rampur	12,267.22	12,851.94	13,464.54	14,106.33	14,778.72
Koldam	12,659.94	13,263.39	13,895.59	14,557.93	15,251.84
KarchamWangt oo	11,710.14	12,268.31	12,853.09	13,465.74	14,107.59
Kopili-I	9,044.47	9,475.58	9,927.24	10,400.43	10,896.17
Kopili-II	1,130.56	1,184.45	1,240.90	1,300.05	1,362.02
Khandong	2,261.12	2,368.90	2,481.81	2,600.11	2,724.04
Doyang	5,654.57	5,924.10	6,206.47	6,502.31	6,812.24
Ranganadi	12,095.88	12,672.44	13,276.47	13,909.30	14,572.30
Maithon	2,892.40	3,030.26	3,174.70	3,326.03	3,484.56
Panchet	2,191.37	2,295.83	2,405.26	2,519.90	2,640.02
Tilaiya	900.17	943.08	988.03	1,035.13	1,084.47

Note: The impact in respect of revision of minimum wage, pay revision and GST, if any, will be considered at the time of determination of tariff.

(b) In case of the hydro generating stations declared under commercial operation on or after 1.4.2019, operation and maintenance expenses of first year shall be fixed at 3.5% and 5.0% of the original project cost (excluding cost of rehabilitation & resettlement works, IDC and IEDC) for stations with installed capacity exceeding 200 MW and for stations with installed capacity less than 200 MW, respectively.

(c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 4.77% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 4.77% per annum.

(c) The Security Expenses and Capital Spares for hydro generating stations shall be allowed separately after prudence check:

Provided further that the generating station shall submit the assessment of the security requirement and estimated expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.

(3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (Rs Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (Rs Lakh per MVA)					

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (Rs Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (Rs. Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh)(3000 MW)	2,563	2,653	2,746	2,842	2,942

Provided that the O&M expenses for the GIS bays shall be allowed as worked out by multiplying 0.70 of the O&M expenses of the normative O&M expenses for bays;

Provided further that:

- (i) the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the

basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;

- (ii) the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- (iii) the O&M expenses of ± 500 kV Mundra -Mohindergarh HVDC bipole scheme (2500 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ± 500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- (iv) the O&M expenses of ± 800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme;
- (v) the O&M expenses of ± 800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme; and
- (v) the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km

respectively.

(c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.

(4) **Communication system:** The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up.

CHAPTER – 9

**[DETERMINATION]⁵⁸ OF INPUT PRICE OF COAL AND LIGNITE
FROM INTEGRATED MINE**

36. Input Price of coal and lignite for energy charges: (1) Where the generating company has the arrangement for supply of coal or lignite from the integrated mine(s) allocated to it, for use in one or more of its generating stations as end use, the energy charge component of tariff of the generating station shall be determined based on the input price of coal or lignite, as the case may be, from such integrated mines [determined in accordance with these regulations.]⁵⁹

[(2) The generating company shall, after the date of commercial operation of the integrated mine(s) till the input price of coal is determined by the Commission under these regulations, adopt the notified price of Coal India Limited commensurate with the grade of the coal from the integrated mine(s) or the estimated price available in the investment approval, whichever is lower, as the input price of coal for the generating station:

Provided that the difference between the input price of coal determined under these regulations and the input price of coal so adopted prior to such determination, for the quantity of coal billed, shall be adjusted in accordance with Clause (4) of this Regulation.

(3) The generating company shall, after the date of commercial operation of the

⁵⁸ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

⁵⁹ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

integrated mine(s), till the input price of lignite is determined by the Commission under these regulations, fix the input price of lignite for the generating station at the last available pooled lignite price as determined by the Commission for transfer price of lignite or the estimated price available in the investment approval, whichever is lower:

Provided that the difference between the input price of lignite determined under these regulations and the input price of lignite so fixed prior to such determination, for the quantity of lignite billed, shall be adjusted in accordance with Clause (4) of this Regulation.]⁶⁰

[(4) In case of excess or short recovery of input price under Clauses (2) or (3) of this Regulation, the generating company shall refund the excess amount or recover the shortfall amount, as the case may be, with simple rate of interest, equal to the bank rate prevailing as on 1st April of the respective years of the tariff period, in six equal monthly instalments.]⁶¹

[36A. Input Price of coal or Lignite: (1) Input price of coal or lignite from the integrated mine(s) shall be determined based on the following components:

- I) Run of Mine (ROM) Cost; and
- II) Additional charges:
 - a. crushing charges;
 - b. transportation charge within the mine up to the washery end or coal handling plant associated with the integrated mine, as the case may be;

⁶⁰ Substituted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

⁶¹ Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

- c. handling charges at mine end;
- d. washing charges; and
- e. transportation charges beyond the washery end or coal handling plant, as the case may be, and up to the loading point:

Provided that one or more components of additional charges may be applicable in case of the integrated mine(s), based on the scope and nature of the mining activities;

Provided further that the input price of lignite shall be computed based on Run of Mine (ROM) based on the technology such as bucket excavator-conveyor or belt-spreader or its combination and handling charges, if any.

(2) Statutory Charges, as applicable, shall be allowed.

36B. Run of Mine (ROM) Cost: (1) Run of Mine Cost of coal in case of integrated mine(s) allocated through auction route under Coal Mines (Special Provisions) Act, 2015 shall be worked out as under:

$$\text{ROM Cost} = (\text{Quoted Price of coal}) + (\text{Fixed Reserve Price})$$

Where,

- (i) Quoted Price of coal is the Final Price Offer of coal in respect of the concerned coal block or mine, along with subsequent escalation, if any, as provided in the Coal Mine Development and Production Agreement:

Provided that additional premium, if any, quoted by the generating company during auction, shall not be considered in the Run of Mine Cost;

- (ii) Fixed Reserve Price is the fixed reserve price per tonne along with subsequent escalation, if any, as provided in the Coal Mine Development and Production Agreement: and
- (iii) Capital cost under Regulation 36D and additional capital expenditure under Regulation 36E shall not be admissible for the purpose of ROM cost in respect of integrated mine(s) allocated through auction route.

(2) Run of Mine Cost of coal in case of integrated mine allocated through allotment route under Coal Mines (Special Provisions) Act, 2015 shall be worked out as under:

$$\text{ROM Cost} = [(\text{Annual Extraction Cost} / \text{ATQ}) + \text{Mining Charge}] + (\text{Fixed Reserve Price}).$$

Where,

- (i) Annual Extraction Cost is the cost of extraction of coal as computed in accordance with Regulation 36F of these regulations;
- (ii) Mining Charge is the charge per tonne of coal paid by the generating company to the Mine Developer and Operator engaged by the generating company for mining, wherever applicable; and

- (iii) Fixed Reserve Price is the fixed reserve price per tonne along with subsequent escalation, if any, as provided in the Coal Mine Development and Production Agreement.

(3) Run of Mine Cost of lignite in case of integrated mine(s) for lignite shall be worked out as under:

$$\text{ROM Cost} = [(\text{Annual Extraction Cost} / \text{ATQ}) + (\text{Mining Charge})]$$

Where,

- (i) Annual Extraction Cost is the cost of extraction of lignite as computed in accordance with Regulation 36F of these regulations; and
- (ii) Mining Charge is the charge per tonne of lignite paid by the generating company to the Mine Developer and Operator engaged by the generating company for mining, wherever applicable.

(4) The generating company shall adhere to the Mining Plan for extraction of coal or lignite on annual basis and shall submit a certificate to that effect from the Coal Controller or the competent authority:

Provided that deviations from the Mining Plan shall be considered only if such deviations have been approved by the Coal Controller or the revised Mining Plan has been approved by the competent authority.

(5) Run of Mine Cost of coal and lignite shall be worked out in terms of Rupees per tonne.

36C. Additional Charges: (1) Where crushing or transportation or handling or washing are undertaken by the generating company without engaging Mine Developer and Operator or an agency other than Mine Developer and Operator, additional charges shall be worked out as under:

(i) $\text{Crushing Charges} = \text{Annual Crushing Cost} / \text{Quantity}$;

(ii) $\text{Transportation Charges} = \text{Annual Transportation Cost} / \text{Quantity}$;

Provided that separate transportation charges, as applicable, shall be considered from mine up to washery end or coal handling plant associated with the integrated mine(s) and beyond washery end or coal handling plant associated with the integrated mine(s) and up to the loading point, as the case may be;

(iii) $\text{Handling charges} = \text{Annual Handling Cost} / \text{Quantity}$; and

(iv) $\text{Washing Charges} = \text{Annual Washing Cost} / \text{Quantity}$.

Where,

(a) Annual Crushing Cost, Annual Transportation Cost, Annual Handling Cost and Annual Washing Cost shall be worked out on the basis of following components, for which the generating company shall submit the capital cost separately:

(i) Depreciation;

(ii) Interest on Working Capital;

(iii) Interest on Loan;

(iv) Return on Equity;

(v) Operation and Maintenance Expenses, excluding mining charge;

(vi) Statutory charges, if applicable.

(b) Quantity shall be the quantity of coal or lignite in tonne crushed or transported or handled or washed, as the case may be, during the year duly certified by the Auditor.

(2) Where crushing, transportation, handling or washing are within the scope of the Mine Developer and Operator engaged by the generating company, no additional charges shall be admitted, as the same shall be recovered through Mining Charge of the Mine Developer and Operator.

(3) Where crushing, transportation, handling or washing are undertaken by the generating company by engaging an agency other than Mine Developer and Operator, the annual charges of such agencies shall be considered as part of the Operation and Maintenance Expenses, provided that the charges have been discovered through a transparent competitive bidding process.

(4) The crushing charges, transportation charges, handling charges, and washing charges shall be admitted by the Commission after prudence check, considering charges of Coal India Limited or similarly placed coal mines or any other reference charges.

(5) The crushing charges, transportation charges, handling charges, and washing charges shall be worked out in terms of Rupees per tonne.

36D. Capital Cost: (1) The expenditure incurred, including IDC and IEDC, duly certified by the Auditor, for development of the integrated mine(s) up to the date of commercial operation, shall be considered for arriving at the capital cost.

(2) Capital expenditure incurred shall be admitted by the Commission after prudence check.

(3) Capital expenditure incurred on infrastructure for crushing, transportation, handling, washing and other mining activities required for mining operations shall be arrived at separately in accordance with these regulations:

Provided that where crushing, transportation, handling or washing are undertaken by the generating company, the expenditure incurred on infrastructures of these components shall be capitalized;

Provided further that where mine development and operation, with or without any component of crushing, transportation, handling or washing are undertaken by the generating company by engaging Mine Developer and Operator or an agency other than Mine Developer and Operator, the capital expenditure incurred by Mine Developer and Operator or such agency shall not be capitalised by the generating company and shall not be considered for the determination of input price.

(4) The capital expenditure shall be determined by considering, but not limited to, the Mining Plan, detailed project report, mine closure plan, cost audit report and such other details as deemed fit by the Commission.

(5) In case of integrated mine(s) which have declared the date of commercial operation prior to 1.4.2019, the capital expenditure allowed by the Commission for the period

ending 31.3.2019 shall form the basis for computation of input price.

36E. Additional Capital Expenditure:(1) The expenditure, in respect of the integrated mine(s), incurred or projected to be incurred after the date of commercial operation and upto the date of achieving the Peak Rated Capacity may be admitted by the Commission, subject to prudence check and shall be capitalized in the respective year of the tariff period as additional capital expenditure corresponding to the Annual Target Quantity of the year as specified in the Mining Plan or actual extraction in that year, whichever is higher, on following counts:

- (a) expenditure incurred on activities as per the Mining Plan;
- (b) expenditure for works deferred for execution and un-discharged liabilities recognized for works executed prior to date of commercial operation;
- (c) expenditure for works required to be carried out for complying with directions or orders of any statutory authorities;
- (d) liabilities arising out of compliance of order or decree of any court of law or award of arbitration;
- (e) expenditure for procurement and development of land as per the Mining Plan;
- (f) expenditure for procurement of additional heavy earth moving machineries for replacement, on completion of their useful life; and
- (g) liabilities due to Change in Law or Force Majeure events;

Provided that in case of replacement of any assets, the additional capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization:

Provided further that the generating company shall prepare guidelines for procurement and replacement of heavy mining equipment such as Heavy Earth Moving Machineries and share the same with the beneficiaries and submit it to the Commission along with its petition.

(2) The expenditure, in respect of the integrated mine(s), incurred or projected to be incurred after the date of achieving the Peak Rated Capacity may be admitted by the Commission subject to prudence check, and shall be capitalized as Additional Capital Expenditure, corresponding to the Annual Target Quantity of the respective years as specified in the Mining Plan, on following counts:

- (a) expenditure incurred on activities, if any, as per Mining Plan;
- (b) expenditure for works required to be carried out for complying with directions or order of any statutory authority;
- (c) liabilities arising out of compliance of order or decree of any court of law or award of arbitration;
- (d) expenditure for procurement and development of land as per the Mining Plan; and
- (e) liabilities due to Change in Law or Force Majeure events;

Provided that in case of replacement of any assets, the additional capitalization shall be worked out after adjusting the gross fixed assets, cumulative depreciation and cumulative repayment of loan of the assets replaced on account of de-capitalization.

(3) The expenditure on following counts shall not be considered as additional capital expenditure for the purpose of these regulations:

- a) expenditure incurred but not capitalized as the assets have not been put in service (capital work in progress);
- b) mine closure expenses;
- c) expenditure on works not covered under Mining Plan, unless covered under sub-clause (g) of Clause (1) or sub-clause (e) of Clause (2) of this Regulation;
- d) expenditure on replacement due to obsolescence of assets on account of completion of the useful life or due to obsolescence of technology, if the original cost of such assets have not been de-capitalised from the gross fixed assets.

36F. Annual Extraction Cost: The Annual Extraction Cost of integrated mine(s) shall consist of the following components:

- (i) Depreciation;
- (ii) Interest on Loan;
- (iii) Return on Equity;
- (iv) Operation and Maintenance Expenses, excluding mining charge;
- (v) Interest on Working Capital;

- (vi) Mine closure expenses, if not included in mining charge; and
- (vii) Statutory charges, if applicable.

36G. Capital Structure, Return on Equity and Interest on Loan: (1) For integrated mine(s), debt-equity ratio as on the date of commercial operation and as on the date of achieving Peak Rated Capacity shall be considered in the manner as specified under Clause (1) of Regulation 18 of these regulations:

Provided that for integrated mine(s) in respect of lignite with the date of commercial operation prior to 1.4.2019, debt-equity ratio allowed by the Commission for the period ending 31.3.2019 shall form the basis for computation of input price.

(2) For integrated mine(s), debt-equity ratio for additional capital expenditure admitted by the Commission under these regulations shall be considered in the manner as specified under Clause (1) of this Regulation.

(3) Return on equity shall be computed in rupee terms on the equity base arrived under Clause (1) of this Regulation at the base rate of 14%.

(4) The base rate of return on equity as per Clause (3) of this Regulation shall be grossed up with the effective tax rate computed in the manner specified under Regulation 31 of these regulations.

(5) Interest on loan, including normative loan, if any, determined under Clause (1) of this Regulation, shall be arrived at by considering the weighted average rate of interest calculated on the basis of actual loan portfolio, in accordance with Clauses (2) to (7) of Regulation 32 of these regulations.

36H. Depreciation: (1) Depreciation in respect of integrated mine(s) shall be computed from the date of commercial operation by applying Straight Line Method:

Provided that depreciation methodology allowed in respect of integrated mine(s) of lignite which have been declared under commercial operation on or before 31.3.2019, shall continue to apply for determination of input price of lignite.

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission:

Provided that,

- i) freehold land or assets purchased from grant shall not be considered as depreciable assets and their cost shall be excluded from the capital cost while computing depreciable value of the assets;
- ii) where the allotment of freehold land is conditional and is required to be returned, the cost of such land shall be part of value base for the purpose of depreciation, subject to prudence check by the Commission; and
- iii) lease hold land shall be amortized over the lease period or remaining life of the integrated mine(s), whichever is lower.

(3) The salvage value of an asset shall be considered as 5% of the capital cost of the asset:

Provided that the salvage value shall be:

- i) zero for IT equipment and software;

- ii) zero or as agreed by the generating company with the State Government for land; and
- iii) as notified by the Ministry of Corporate Affairs under the Companies Act, 2013 for specialized mining equipment.

(4) Depreciation in respect of integrated mine(s) shall be arrived at annually by applying depreciation rates or on the basis of expected useful life specified in Appendix 1A of these regulations:

Provided that specialized mining equipment shall be depreciated as per the useful life and depreciation rate as notified by the Ministry of Corporate Affairs under the Companies Act, 2013.

36I. Operation and Maintenance Expenses: (1) The Operation and Maintenance Expenses in respect of integrated mine(s) shall be allowed as under:

- (a) The Operation and Maintenance expenses in respect of integrated mine(s) of coal, for the tariff period ending on 31st March 2024 shall be allowed based on the projected Operation and Maintenance Expenses for each year of the tariff period subject to prudence check by the Commission;

Provided that the Operation and Maintenance expenses allowed under this clause shall be trued up based on actual expenses for the tariff period ending on 31st March, 2024.

- (b) The Operation and Maintenance expenses for the tariff period ending on 31st March 2024 in respect of the integrated mine(s) of lignite commissioned on or before 31st March 2019, shall be worked out based on the Operation and

Maintenance expenses as admitted by the Commission during 2018-19 and escalated at the rate of 3.5% per annum;

- (c) The Operation and Maintenance expenses for the tariff period ending on 31st March 2024 in respect of the integrated mine(s) of lignite commissioned after 31st March 2019, shall be allowed based on the projected Operation and Maintenance Expenses for each year of the tariff period, subject to prudence check by the Commission;

Provided that the Operation and Maintenance expenses allowed under this clause shall be trued up based on actual expenses for the tariff period ending on 31st March 2024.

- (2) Where the development and operation of the integrated mine(s) is undertaken by the generating company by engaging Mine Developer and Operator, the Mining Charge of such Mine Developer and Operator shall not be included in Operation and Maintenance Expenses under Clause (1) of this Regulation;

- (3) Where an agency other than Mine Developer and Operator is engaged by the generating company, through a transparent competitive bidding process, for crushing or transportation or handling or washing or any combination thereof, the annual charges of such agency shall be considered as part of Operation and Maintenance Expenses under clause (1) of this Regulation, subject to prudence check by the Commission.

36J. Interest on Working Capital: (1) The working capital of the integrated mine(s) of coal shall cover:

- (i) Input cost of coal stock for 7 days of production corresponding to the Annual Target Quantity for the relevant year;
 - (ii) Consumption of stores and spares including explosives, lubricants and fuel @ 15% of operation and maintenance expenses, excluding mining charge of Mine Developer and Operator and annual charges of the agency other than Mine Developer and Operator, engaged by the generating company; and
 - (iii) Operation and maintenance expenses for one month, excluding mining charge of Mine Developer and Operator and annual charges of the agency other than Mine Developer and Operator, engaged by the generating company.
- (2) The working capital of the integrated mine(s) of lignite shall cover:-
- (i) Input cost of lignite stock for 7 days of production corresponding to the Annual Target Quantity for the year;
 - (ii) Consumption of stores and spare including explosives, lubricants and fuel @ 20% of Operation and Maintenance expenses, excluding Mining Charge of Mine Developer and Operator and annual charges of the agency other than Mine Developer or Operator, engaged by the generating company; and
 - (iii) Operation and Maintenance expenses for one month, excluding Mining Charge of Mine Developer and Operator and annual charges of the agency other than Mine Developer and Operator, engaged by the generating company.

(3) The rate and payment of interest on working capital shall be determined in accordance with Clauses (3) and (4) of Regulation 34 of these regulations.

36K. Mine Closure Expenses: (1) Where the mine closure is undertaken by the generating company, the amount deposited in the Escrow account as per the Mining Plan, after adjusting interest earned, if any, on the said deposits shall be admitted as Mine Closure Expenses:

Provided that,

- a) the amount deposited in the Escrow account as per the Mining Plan prior to the Date of Commercial Operation of the integrated mine(s) shall be indicated separately and shall be recovered over the useful life of the integrated mine(s) in the form of annuity linked to the borrowing rate;
- b) the amount deposited in the Escrow account as per the Mining Plan or any expenditure incurred towards mine closure shall be excluded from the capital cost for computing input price;
- c) where the expenditure incurred towards mine closure falls short of or is in excess of the reimbursement received from the Escrow account during the tariff period 2019-24, the shortfall or excess shall be carried forward to the subsequent years for adjustments.

(2) The amount towards mine closure shall be deposited in the Escrow account as per the Mining Plan and shall be recovered as part of input price irrespective of the expenditure incurred towards mine closure during any of the years of the tariff period.

(3) Where mine closure is within the scope of Mine Developer and Operator engaged by the generating company and mine closure expenses are part of the Mining Charge of Mine Developer and Operator, the mine closure expenses shall be met out of the Mining Charge and no mine closure expenses shall be admissible to the generating company separately:

Provided that,

- a) the amount deposited in the Escrow account by the Mine Developer and Operator or by the generating company and any amount received from the Escrow Account against expenditure incurred towards mine closure shall not be considered for computing input price; and
- b) the difference between the borrowing cost, arrived at by considering the weighted average rate of interest calculated on the basis of actual loan portfolio in accordance with the methodology specified in Regulation 32 of these regulations, and the amount deposited in Escrow account and the interest received from Escrow account in a year shall be adjusted in the input price of coal or lignite of the respective year, as part of mine closure expenses, on case to case basis;

(4) Where the mine closure is within the scope of Mine Developer and Operator engaged by the generating company only for a part of useful life of the integrated mine (s) and the generating company undertakes the mine closure for the balance useful life, the treatment of mine closure during the period undertaken by the generating company shall be in accordance with Clause (1) of this Regulation and mine closure during the period undertaken by the Mine Developer and Operator shall be in

accordance with Clause (3) of this Regulation:

Provided that the treatment of mine closure at the end of useful life of the integrated mine(s) shall be decided by the Commission on case to case basis.

(5) The mine closure expenses worked out in accordance with this Regulation shall not be applicable in case of the integrated mine(s) allocated through auction route under Coal Mines (Special Provisions) Act, 2015.

36L. Determination of Input Price: (1) The input price of coal or lignite shall be determined as under:

$$\text{Input Price} = [\text{ROM Cost} + \text{Additional charges}]$$

(2) The credit arising on account of adjustment due to shortfall in overburden removal, GCV Adjustment and Non-tariff Income, if any, shall be dealt separately in the manner specified in these regulations.

(3) Statutory Charges, as applicable, shall be allowed.

36M. Recovery of Input Charges: (1) The input charges of coal or lignite shall be recovered as under:

$$\text{Input Charges} = [\text{Input Price} \times \text{Quantity of coal or lignite supplied}] + \text{Statutory charges, as applicable;}$$

Provided that where energy charge rate based on input price of coal from integrated mine(s) exceeds by 20% of energy charge rate based on notified price of Coal India Limited for the commensurate grade of coal in a month, prior consent of the beneficiary(ies) shall be required to be obtained by the generating company;

Provided further that where such consents of beneficiaries are not available,

input price of coal from such integrated mine(s) shall be so fixed that energy charge rate based on input price of coal from integrated mine(s) does not exceed by more than 20% the energy charge rate based on notified price of Coal India Limited for the commensurate grade of coal in a month;

Provided also that energy charge rate based on input price of coal does not lead to higher energy charge rate throughout the tenure of power purchase agreement than that which would have been obtained as per terms and conditions of the existing power purchase agreement.

(2) The generating company shall work out the comparative energy charge rate based on the input price of coal and notified price of Coal India Limited for the commensurate grade of coal for every month from the date of commercial operation of integrated mine(s) and share the same with beneficiaries.

36N. Adjustment on account of Shortfall of Overburden Removal (OB Adjustment):

(1) The generating company shall remove overburden as specified in the Mining Plan.

(2) In case of shortfall of overburden removal during a year, the generating company shall be allowed to adjust such shortfall against excess of overburden removal, if any, during subsequent three years.

(3) In case of excess of overburden removal during a year, the generating company shall be allowed to carry forward such excess for adjustment against the shortfall, if any, during subsequent three years.

(4) Where the shortfall of overburden removal of any year is not made good by the generating company in accordance with Clause (2) of this Regulation, the adjustment

on account of shortfall of overburden removal (OB Adjustment) for that year shall be worked out as under:

$$\text{OB Adjustment} = [\text{Factor of adjustment for shortfall of overburden removal during the year}] \times [\text{Mining Charge during the year} + \text{Operation and Maintenance expenses during the year}]$$

Where,

- i) Factor of adjustment for shortfall of overburden removal during the year shall be computed as under:

[(Actual quantity of coal or lignite extracted during the year x Annual Stripping Ratio as per Mining Plan) - (Actual quantity of overburden removed during the year / Annual Stripping Ratio as per Mining Plan)] / (Annual Target Quantity);

- ii) Annual Stripping ratio is the ratio of volume of overburden to be removed for one unit of coal or lignite as specified in the Mining Plan.
- iii) Mining Charge is the charge per tonne of coal or lignite paid by the generating company to the Mine Developer and Operator engaged by the generating company for mining, wherever applicable.
- iv) Mining Charge and Operation and Maintenance expenses shall be in terms of Rupees per tonne corresponding to the Annual Target Quantity.

(5) The provisions of this Regulation regarding adjustment on account of shortfall of overburden removal shall not be applicable in case of the integrated mine(s) allocated through auction route under Coal Mines (Special Provisions) Act, 2015.

36O. Adjustment on account of shortfall in GCV (GCV Adjustment): (1) In case the weighted average GCV of coal extracted from the integrated mine(s) in a year is higher than the declared GCV of coal for such mine(s), no GCV adjustment shall be allowed.

(2) In case the weighted average GCV of coal extracted from the integrated mine(s) in a year is lower than the declared GCV of coal of such mine(s), the GCV adjustment in that year shall be worked out as under:

(a) Where the integrated mine(s) are allocated through auction route under Coal Mines (Special Provisions) Act, 2015:

$$\text{GCV Adjustment} = (\text{Quoted Price of coal} + \text{Fixed Reserve Price}) \times [(\text{Declared GCV of coal} - \text{Weighted Average GCV of coal extracted in the year}) / (\text{Declared GCV of coal})]$$

Where,

i) Quoted Price of coal is the Final Price Offer of coal in respect of the concerned coal Block or Mine, along with subsequent escalation, if any, as provided in the Coal Mine Development and Production Agreement:

Provided that additional premium, if any, quoted by the generating company in auction, shall not be considered; and

- ii) Declared GCV of coal shall be the GCV of coal as specified or quoted in the auction.

(b) Where the integrated mine(s) are allocated through allotment route under Coal Mines (Special Provisions) Act, 2015:

$$\text{GCV Adjustment} = [(\text{Annual Extraction Cost/ATQ}) + (\text{Mining Charge})] \times [(\text{Declared GCV of coal} - \text{Weighted Average GCV of coal extracted in the year}) / (\text{Declared GCV of coal})]$$

Where,

- i) Annual Extraction Cost is the cost of extraction of coal as computed in accordance with Regulation 36F of these regulations;
- ii) Mining Charge is the charge per tonne of coal paid by the generating company to the Mine Developer and Operator engaged by the generating company for mining, wherever applicable; and
- iii) Declared GCV of coal shall be the average GCV as per the Mining Plan or as approved by the Coal Controller.

36P. Adjustment on account of Non-tariff income (NTI Adjustment): (1) Adjustment on account of non-tariff income (NTI Adjustment) for any year, such as income from sale of washery rejects in case of integrated mine of coal and profit, if any, from supply of coal to the Coal India Limited or merchant sale of coal as allowed under the Coal Mines (Special Provisions) Act, 2015 shall be worked out as under:

$$\text{NTI Adjustment} = \frac{(\text{All Non-tariff income during the year})}{(\text{Actual quantity of coal or lignite extracted during the year})}$$

(2) The adjustment on account of non-tariff income worked out in accordance with this Regulation shall not be applicable in case of the integrated mine(s) allocated through auction route under Coal Mines (Special Provisions) Act, 2015.

36Q. Credit Adjustment Note: (1) The credit arising on account of OB Adjustment GCV Adjustment and NTI Adjustment shall be dealt through Credit Adjustment Note for any year.

(2) The Credit Adjustment Note shall be issued in favour of the specified end use generating stations on account of OB Adjustment, GCV Adjustment or NTI Adjustment, as the case may be, for that year as under:

- (i) OB Adjustment for the year X Quantity of coal or lignite supplied in that year;
- (ii) GCV Adjustment for the year X Quantity of coal or lignite supplied in that year; and
- (iii) NTI Adjustment in the year X Quantity of coal or lignite supplied in that year.

(3) The amount in Credit Adjustment Note shall be adjusted against the charges of coal or lignite supplied after the date of issue of Credit Adjustment Note. The integrated mine(s) shall prepare an annual reconciliation statement of such adjustment and furnish the same to all the end use plants and also publish the same on its website.

36R. Quality Measurement: The quality of coal or lignite supplied from the integrated mine(s) shall be measured at the loading point through third party sampling as per the guidelines and procedure specified by the Ministry of Coal, Government of India and records of such measurement of quality of coal shall be made available to the beneficiaries on demand.

36S. Special Provision: Provisions of Chapters 5 to 8 of these regulations shall not be applicable in case of integrated mine(s), except to the extent specifically provided for or referred to in Chapter-9:

Provided that the financial parameters required for determination of input price of coal or lignite from integrated mine(s), if not specifically provided for or referred to in Chapter-9, shall be considered as per provisions of these regulations as applicable to the coal or lignite based generating stations.]⁶²

⁶² Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

CHAPTER – 10

[COMPONENTS OF ENERGY CHARGE AND SUPPLEMENTARY ENERGY CHARGE]⁶³

37. [Energy Charges and Supplementary Energy Charges]⁶⁴ : The energy charge [and Supplementary Energy Charges]⁶⁵ in respect of the thermal generating Stations shall comprise of landed fuel cost of primary fuel, cost of secondary fuel oil consumption and landed cost of reagents on account of implementation of the revised emission standards.

38. Landed Fuel Cost of Primary Fuel: The landed fuel cost of primary fuel for any month shall consist of base price or input price of fuel corresponding to the grade and quality of fuel and shall be inclusive of statutory charges as applicable, washery charges, transportation cost by rail or road or any other means and loading, unloading and handling charges:

Provided that procurement of fuel at a price other than Government notified prices may be considered, if it is based on competitive bidding through transparent process;

Provided further that landed fuel cost of primary fuel shall be worked out based on the actual bill paid by the generating company including any adjustment on account of quantity and quality;

Provided also that in case of coal-fired or lignite based thermal generating station, the Gross Calorific Value shall be measured by third party sampling and the

⁶³ Substituted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

⁶⁴ Substituted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

⁶⁵ Added *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

expenses towards the third party sampling facility shall be reimbursed by the beneficiaries.

39. Transit and Handling Losses: For coal and lignite, the transit and handling losses shall be as per the following norms:-

Thermal Generating Station	Transit and Handling Loss (%)
Pit head	0.20%
Non-pit head	0.80%

Provided that in case of pit-head stations, if coal or lignite is procured from sources other than the pit-head mines which is transported to the station through rail, transit and handling losses applicable for non-pit head station shall apply;

Provided further that in case of imported coal, the transit and handling losses applicable for pit-head station shall apply.

40. Gross Calorific Value of Primary Fuel: (1) The gross calorific value for computation of energy charges as per Regulation 43 of these regulations shall be done in accordance with 'GCV as received' basis.

(2) The generating company shall provide to the beneficiaries of the generating station the details in respect of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc. as per the Form 15 prescribed at **Annexure-I(Part I)** to these regulations:

Provided that the additional details of the weighted average GCV of the fuel on as received basis used for generation during the period, blending ratio of the imported

coal with domestic coal, proportion of e-auction coal shall be provided, along with the bills of the respective month;

Provided further that copies of the bills and details of parameters of GCV and price of fuel such as domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel, details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal shall also be displayed on the website of the generating company.

41. Landed Cost of Reagent: (1) Where specific reagents such as Limestone, Sodium Bi-Carbonate, Urea or Anhydrous Ammonia are used during operation of emission control system for meeting revised emission standards, the landed cost of such reagents shall be determined based on normative consumption and purchase price of the reagent through competitive bidding, applicable statutory charges and transportation cost.

(2) The normative consumption of specific reagent for the various technologies installed for meeting revised emission standards shall be [as specified in Regulations 49 of these regulations]⁶⁶.

⁶⁶ Substituted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

CHAPTER - 11

[COMPUTATION OF CAPACITY CHARGES, SUPPLEMENTARY CAPACITY CHARGES, ENERGY CHARGES AND SUPPLEMENTARY ENERGY CHARGES]⁶⁷**42. Computation and Payment of Capacity Charge for Thermal Generating Stations:**

(1) The fixed cost of a thermal generating station shall be computed on annual basis based on the norms specified under these regulations and recovered on monthly basis under capacity charge. The total capacity charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share or allocation in the capacity of the generating station. The capacity charge shall be recovered under two segments of the year, i.e. High Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts viz., Capacity Charge for Peak Hours of the month and Capacity Charge for Off-Peak Hours of the month as follows:

Capacity Charge for the Year (CC_y) =

Sum of Capacity Charge for three months of High Demand Season +
Sum of Capacity Charge for nine months of Low Demand Season

(2) The Capacity Charge payable to a thermal generating station for a calendar month shall be calculated in accordance with the following formulae:

Capacity Charge for the Month (CC_m) =

Capacity Charge for Peak Hours of the Month (CC_p) +

⁶⁷ Substituted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

Capacity Charge for Off-Peak Hours of the Month (CC_{op})

Where,

High Demand Season:

$$CC_{p1} = (0.20 \times AFC) \times \left(\frac{1}{12}\right) \times \left(\frac{PAFMp1}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC) \times \left(\frac{1}{12}\right)$$

$$CC_{p2} = \{(0.20 \times AFC) \times \left(\frac{1}{6}\right) \times \left(\frac{PAFMp2}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC) \times \left(\frac{1}{6}\right)\} - CC_{p1}$$

$$CC_{p3} = \{(0.20 \times AFC) \times \left(\frac{1}{4}\right) \times \left(\frac{PAFMp3}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC) \times \left(\frac{1}{4}\right)\} - (CC_{p1} + CC_{p2})$$

$$CC_{op1} = \{(0.80 \times AFC) \times \left(\frac{1}{12}\right) \times \left(\frac{PAFMop1}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFC) \times \left(\frac{1}{12}\right)\}$$

$$CC_{op2} = \{(0.80 \times AFC) \times \left(\frac{1}{6}\right) \times \left(\frac{PAFMop2}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFC) \times \left(\frac{1}{6}\right)\} - CC_{op1}$$

$$CC_{op3} = \{(0.80 \times AFC) \times \left(\frac{1}{4}\right) \times \left(\frac{PAFMop3}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFC) \times \left(\frac{1}{4}\right)\} - (CC_{op1} + CC_{op2})$$

Low Demand Season:

$$CC_{p1} = \{(0.20 \times AFC) \times \left(\frac{1}{12}\right) \times \left(\frac{PAFMp1}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC) \times \left(\frac{1}{12}\right)\}$$

$$CC_{p2} = \{(0.20 \times AFC) \times \left(\frac{1}{6}\right) \times \left(\frac{PAFMp2}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC) \times \left(\frac{1}{6}\right)\} - CC_{p1}$$

$$CC_{p3} = \{(0.20 \times AFC) \times \left(\frac{1}{4}\right) \times \left(\frac{PAFMp3}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC) \times \left(\frac{1}{4}\right)\} - (CC_{p1} + CC_{p2})$$

$$CC_{p4} = \{(0.20 \times AFC)x\left(\frac{1}{3}\right)x\left(\frac{PAFMp4}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC)x\left(\frac{1}{3}\right)\} - (CCp1 + CCp2 + CCp3)$$

$$CC_{p5} = \{(0.20 \times AFC)x\left(\frac{5}{12}\right)x\left(\frac{PAFMp5}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC)x\left(\frac{5}{12}\right)\} - (CCp1 + CCp2 + CCp3 + CCp4)$$

$$CC_{p6} = \{(0.20 \times AFC)x\left(\frac{1}{2}\right)x\left(\frac{PAFMp6}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC)x\left(\frac{1}{2}\right)\} - (CCp1 + CCp2 + CCp3 + CCp4 + CCp5)$$

$$CC_{p7} = \{(0.20 \times AFC)x\left(\frac{7}{12}\right)x\left(\frac{PAFMp7}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC)x\left(\frac{7}{12}\right)\} - (CCp1 + CCp2 + CCp3 + CCp4 + CCp5 + CCp6)$$

$$CC_{p8} = \{(0.20 \times AFC)x\left(\frac{2}{3}\right)x\left(\frac{PAFMp8}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC)x\left(\frac{2}{3}\right)\} - (CCp1 + CCp2 + CCp3 + CCp4 + CCp5 + CCp6 + CCp7)$$

$$CC_{p9} = \{(0.20 \times AFC)x\left(\frac{3}{4}\right)x\left(\frac{PAFMp9}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFC)x\left(\frac{3}{4}\right)\} - (CCp1 + CCp2 + CCp3 + CCp4 + CCp5 + CCp6 + CCp7 + CCp8)$$

$$CC_{op1} = \{(0.80 \times AFC)x\left(\frac{1}{12}\right)x\left(\frac{PAFMop1}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFC)x\left(\frac{1}{12}\right)\}$$

$$CC_{op2} = \{(0.80 \times AFC)x\left(\frac{1}{6}\right)x\left(\frac{PAFMop2}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFC)x\left(\frac{1}{6}\right)\} - CCop1$$

$$CC_{op3} = \{(0.80 \times AFC)x\left(\frac{1}{4}\right)x\left(\frac{PAFMop3}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFC)x\left(\frac{1}{4}\right)\} - (CCop1 + CCop2)$$

$$CC_{op4} = \{(0.80 \times AFC)x\left(\frac{1}{3}\right)x\left(\frac{PAFMop4}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFC)x\left(\frac{1}{3}\right)\} - (CCop1 + CCop2 + CCop3)$$

$$CC_{op5} = \left\{ (0.80 \times AFC) \times \left(\frac{5}{12} \right) \times \left(\frac{PAFMop5}{NAPAF} \right) \text{ subject to ceiling of } (0.80 \times AFC) \times \left(\frac{5}{12} \right) \right\} - (CCop1 + CCop2 + CCop3 + CCop4)$$

$$CC_{op6} = \left\{ (0.80 \times AFC) \times \left(\frac{1}{2} \right) \times \left(\frac{PAFMop6}{NAPAF} \right) \text{ subject to ceiling of } (0.80 \times AFC) \times \left(\frac{1}{2} \right) \right\} - (CCop1 + CCop2 + CCop3 + CCop4 + CCop5)$$

$$CC_{op7} = \left\{ (0.80 \times AFC) \times \left(\frac{7}{12} \right) \times \left(\frac{PAFMop7}{NAPAF} \right) \text{ subject to ceiling of } (0.80 \times AFC) \times \left(\frac{7}{12} \right) \right\} - (CCop1 + CCop2 + CCop3 + CCop4 + CCop5 + CCop6)$$

$$CC_{op8} = \left\{ (0.80 \times AFC) \times \left(\frac{2}{3} \right) \times \left(\frac{PAFMop8}{NAPAF} \right) \text{ subject to ceiling of } (0.80 \times AFC) \times \left(\frac{2}{3} \right) \right\} - (CCop1 + CCop2 + CCop3 + CCop4 + CCop5 + CCop6 + CCop7)$$

$$CC_{op9} = \left\{ (0.80 \times AFC) \times \left(\frac{3}{4} \right) \times \left(\frac{PAFMop9}{NAPAF} \right) \text{ subject to ceiling of } (0.80 \times AFC) \times \left(\frac{3}{4} \right) \right\} - (CCop1 + CCop2 + CCop3 + CCop4 + CCop5 + CCop6 + CCop7 + CCop8)$$

Provided that in case of generating station or unit thereof under shutdown due to Renovation and Modernisation [or installation of emission control system, as the case may be]⁶⁸, the generating company shall be allowed to recover O&M expenses and interest on loan only.

Where,

CC_m = Capacity Charge for the Month;

CC_p = Capacity Charge for the Peak Hours of the Month;

CC_{op} = Capacity Charge for the Off-Peak Hours of the Month;

⁶⁸ Inserted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

CC_{pn} =	Capacity Charge for the Peak Hours of n^{th} Month in a specific Season;
CC_{opn} =	Capacity Charge for the Off-Peak of n^{th} Month in a specific Season;
AFC =	Annual Fixed Cost;
$PAFM_{pn}$ =	Plant Availability Factor achieved during Peak Hours upto the end of n^{th} Month in a Season;
$PAFM_{opn}$ =	Plant Availability Factor achieved during Off-Peak Hours upto the end of n^{th} Month in a Season;
$NAPAF$ =	Normative Annual Plant Availability Factor.

(3) Normative Plant Availability Factor for “Peak” and “Off-Peak” Hours in a month shall be equivalent to the NAPAF specified in Clause (A) of Regulation 49 of these regulations. The number of hours of “Peak” and “Off-Peak” periods during a day shall be four and twenty respectively. The hours of Peak and Off-Peak periods during a day shall be declared by the concerned RLDC at least a week in advance. The High Demand Season (period of three months, consecutive or otherwise) and Low Demand Season (period of remaining nine months, consecutive or otherwise) in a region shall be declared by the concerned RLDC, at least six months in advance:

Provided that RLDC, after duly considering the comments of the concerned stakeholders, shall declare Peak Hours and High Demand Season in such a way as to coincide with the majority of the Peak Hours and High Demand Season of the region to the maximum extent possible:

Provided further that in respect of a generating station having beneficiaries across different regions, the High Demand Season and the Peak Hours shall correspond to the High Demand Season and Peak Hours of the region in which majority of its beneficiaries, in terms of percentage of allocation of share, are located.

(4) Any under-recovery or over recovery of Capacity Charge as a result of under-achievement or over-achievement, vis-à-vis the NAPAF in Peak and Off-Peak Hours of a Season (High Demand Season or Low Demand Season, as the case may be) shall not be adjusted with under-achievement or over-achievement, vis-à-vis the NAPAF in Peak and Off-Peak Hours of the other Season:

Provided that within a Season, the shortfall in recovery of Capacity Charge for cumulative Off-Peak Hours derived based on NAPAF, shall be allowed to be off-set by over-achievement of PAF, if any, and consequent notional over-recovery of Capacity Charge for cumulative Peak Hours in that Season:

Provided further that within a Season, the shortfall in recovery of Capacity Charge for cumulative Peak Hours derived based on NAPAF, shall not be allowed to be off-set by over-achievement of PAF, if any, and consequent notional over-recovery of Capacity Charge for cumulative Off-Peak Hours in that Season.

[(5) The Plant Availability Factor for a Month ('PAFM') shall be computed in accordance with the following formula:

$$PAFM = 10000 \times \sum_{i=1}^N \frac{DC_i}{[N \times ICx(100 - AUX_n - AUX_{en})]} \%$$

Where,

AUX_n = Normative auxiliary energy consumption as a percentage of gross energy generation;

AUX_{em} = Normative auxiliary energy consumption for emission control system as a percentage of gross energy generation, wherever applicable;

DC_i = Average declared capacity (in ex-bus MW), for the i^{th} day of the period i.e. the month or the year, as the case may be, as certified by the concerned load dispatch centre after the day is over;

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

N = Number of days during the period;

Note: DC_i and IC shall exclude the capacity of generating units not declared under commercial operation. In case of a change in IC during the concerned period, its average value shall be taken.]⁶⁹

(6) In addition to the capacity charge, an incentive shall be payable to a generating station or unit thereof @ 65 paise/ kWh for ex bus scheduled energy during Peak Hours and @ 50 paise/ kWh for ex-bus scheduled energy during Off Peak Hours corresponding to scheduled generation in excess of-ex bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) achieved on a cumulative basis within each Season (High Demand Season or Low Demand Season, as the case may be), as specified in Clause (B) of Regulation 49 of these regulations.

(7) The provisions under Clauses (1) to (6) of this Regulation shall come into force with effect from 1.4.2020. Till that date, the capacity charge for a thermal generating station

⁶⁹ Substituted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

determined under these regulations shall be recovered in accordance with the provisions contained in Clauses (1) to (4) of Regulation 30 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, subject to the condition that the NAPAF and NAPLF shall be taken as specified under these regulations.

[42A. Computation and Payment of Supplementary Capacity Charge for Coal or Lignite based Thermal Generating Stations:

(1) The fixed cost of emission control system shall be computed on annual basis based on the norms specified under these regulations and recovered on monthly basis under supplementary capacity charge. The total supplementary capacity charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share or allocation in the capacity of the generating station. The supplementary capacity charge shall be recovered under two segments of the year, i.e. High Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts viz., supplementary capacity charge for Peak Hours of the month and supplementary capacity charge for Off-Peak Hours of the month as follows:

Supplementary Capacity Charge for the Year (SCC_y) =

Sum of Supplementary Capacity Charge for three months of High Demand Season + Sum of Supplementary Capacity Charge for nine months of Low Demand Season.

(2) The Supplementary Capacity Charge payable to a thermal generating station for a calendar month shall be calculated in accordance with the following formulae:

Supplementary Capacity Charge for the Month (SCC_m) =

Supplementary Capacity Charge for Peak Hours of the Month (SCC_p) +

Supplementary Capacity Charge for Off-Peak Hours of the Month (SCC_{op})

Where,

High Demand Season:

$$SCC_{p1} = (0.20 \times AFCE) \times \left(\frac{1}{12}\right) \times \left(\frac{PAFMp1}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCE) \times \left(\frac{1}{12}\right)$$

$$SCC_{p2} = \{(0.20 \times AFCE) \times \left(\frac{1}{6}\right) \times \left(\frac{PAFMp2}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCE) \times \left(\frac{1}{6}\right)\} - SCC_{p1}$$

$$SCC_{p3} = \{(0.20 \times AFCE) \times \left(\frac{1}{4}\right) \times \left(\frac{PAFMp3}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCE) \times \left(\frac{1}{4}\right)\} - (SCC_{p1} + SCC_{p2})$$

$$SCC_{op1} = \{(0.80 \times AFCE) \times \left(\frac{1}{12}\right) \times \left(\frac{PAFMop1}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCE) \times \left(\frac{1}{12}\right)\}$$

$$SCC_{op2} = \{(0.80 \times AFCE) \times \left(\frac{1}{6}\right) \times \left(\frac{PAFMop2}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCE) \times \left(\frac{1}{6}\right)\} - SCC_{op1}$$

$$SCC_{op3} = \{(0.80 \times AFCE) \times \left(\frac{1}{4}\right) \times \left(\frac{PAFMop3}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCE) \times \left(\frac{1}{4}\right)\} - (SCC_{op1} + SCC_{op2})$$

Low Demand Season:

$$SCC_{p1} = \{(0.20 \times AFCE) \times \left(\frac{1}{12}\right) \times \left(\frac{PAFMp1}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCE) \times \left(\frac{1}{12}\right)\}$$

$$SCC_{p2} = \{(0.20 \times AFCe)x\left(\frac{1}{6}\right)x\left(\frac{PAFMp2}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCe)x\left(\frac{1}{6}\right)\} - CCp1$$

$$SCC_{p3} = \{(0.20 \times AFCe)x\left(\frac{1}{4}\right)x\left(\frac{PAFMp3}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCe)x\left(\frac{1}{4}\right)\} - (SCCp1 + SCCp2)$$

$$SCC_{p4} = \{(0.20 \times AFCe)x\left(\frac{1}{3}\right)x\left(\frac{PAFMp4}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCe)x\left(\frac{1}{3}\right)\} - (SCCp1 + SCCp2 + SCCp3)$$

$$SCC_{p5} = \{(0.20 \times AFCe)x\left(\frac{5}{12}\right)x\left(\frac{PAFMp5}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCe)x\left(\frac{5}{12}\right)\} - (SCCp1 + SCCp2 + SCCp3 + SCCp4)$$

$$SCC_{p6} = \{(0.20 \times AFCe)x\left(\frac{1}{2}\right)x\left(\frac{PAFMp6}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCe)x\left(\frac{1}{2}\right)\} - (SCCp1 + SCCp2 + SCCp3 + SCCp4 + SCCp5)$$

$$SCC_{p7} = \{(0.20 \times AFCe)x\left(\frac{7}{12}\right)x\left(\frac{PAFMp7}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCe)x\left(\frac{7}{12}\right)\} - (SCCp1 + SCCp2 + SCCp3 + SCCp4 + SCCp5 + SCCp6)$$

$$SCC_{p8} = \{(0.20 \times AFCe)x\left(\frac{2}{3}\right)x\left(\frac{PAFMp8}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCe)x\left(\frac{2}{3}\right)\} - (SCCp1 + SCCp2 + SCCp3 + SCCp4 + SCCp5 + SCCp6 + SCCp7)$$

$$SCC_{p9} = \{(0.20 \times AFCe)x\left(\frac{3}{4}\right)x\left(\frac{PAFMp9}{NAPAF}\right) \text{ subject to ceiling of } (0.20 \times AFCe)x\left(\frac{3}{4}\right)\} - (SCCp1 + SCCp2 + SCCp3 + SCCp4 + SCCp5 + SCCp6 + SCCp7 + SCCp8)$$

$$SCC_{op1} = \{(0.80 \times AFCe)x\left(\frac{1}{12}\right)x\left(\frac{PAFMop1}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCe)x\left(\frac{1}{12}\right)\}$$

$$SCC_{op2} = \{(0.80 \times AFCe)x\left(\frac{1}{6}\right)x\left(\frac{PAFMop2}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCe)x\left(\frac{1}{6}\right)\} - SCCop1$$

$$SCC_{op3} = \{ (0.80 \times AFCE) \times \left(\frac{1}{4}\right) \times \left(\frac{PAFMop3}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCE) \times \left(\frac{1}{4}\right) \} - (SCC_{op1} + SCC_{op2})$$

$$SCC_{op4} = \{ (0.80 \times AFCE) \times \left(\frac{1}{3}\right) \times \left(\frac{PAFMop4}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCE) \times \left(\frac{1}{3}\right) \} - (SCC_{op1} + SCC_{op2} + SCC_{op3})$$

$$SCC_{op5} = \{ (0.80 \times AFCE) \times \left(\frac{5}{12}\right) \times \left(\frac{PAFMop5}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCE) \times \left(\frac{5}{12}\right) \} - (SCC_{op1} + SCC_{op2} + SCC_{op3} + SCC_{op4})$$

$$SCC_{op6} = \{ (0.80 \times AFCE) \times \left(\frac{1}{2}\right) \times \left(\frac{PAFMop6}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCE) \times \left(\frac{1}{2}\right) \} - (SCC_{op1} + SCC_{op2} + SCC_{op3} + SCC_{op4} + SCC_{op5})$$

$$SCC_{op7} = \{ (0.80 \times AFCE) \times \left(\frac{7}{12}\right) \times \left(\frac{PAFMop7}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCE) \times \left(\frac{7}{12}\right) \} - (SCC_{op1} + SCC_{op2} + SCC_{op3} + SCC_{op4} + SCC_{op5} + SCC_{op6})$$

$$SCC_{op8} = \{ (0.80 \times AFCE) \times \left(\frac{2}{3}\right) \times \left(\frac{PAFMop8}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCE) \times \left(\frac{2}{3}\right) \} - (SCC_{op1} + SCC_{op2} + SCC_{op3} + SCC_{op4} + SCC_{op5} + SCC_{op6} + SCC_{op7})$$

$$SCC_{op9} = \{ (0.80 \times AFCE) \times \left(\frac{3}{4}\right) \times \left(\frac{PAFMop9}{NAPAF}\right) \text{ subject to ceiling of } (0.80 \times AFCE) \times \left(\frac{3}{4}\right) \} - (SCC_{op1} + SCC_{op2} + SCC_{op3} + SCC_{op4} + SCC_{op5} + SCC_{op6} + SCC_{op7} + SCC_{op8})$$

Provided that in case of generating station or unit thereof under shutdown due to Renovation and Modernisation, the generating company shall be allowed to recover O&M expenses and interest on loan in respect of emission control system only.

Where,

SCC_m = Supplementary Capacity Charge for the Month;

SCC_P = Supplementary Capacity Charge for the Peak Hours of the Month;

SCC_{op} = Supplementary Capacity Charge for the Off-Peak Hours of the Month;

SCC_{pn} = Supplementary Capacity Charge for the Peak Hours of n^{th} Month in a specific Season;

SCC_{opn} = Supplementary Capacity Charge for the Off-Peak Hours of n^{th} Month in a specific Season;

AFC_e = Annual Fixed Cost of the emission control system;

$PAFM_{pn}$ = Plant Availability Factor achieved during Peak Hours upto the end of n^{th} Month in a Season;

$PAFM_{opn}$ = Plant Availability Factor achieved during Off-Peak Hours upto the end of n^{th} Month in a Season;

$NAPAF$ = Normative Annual Plant Availability Factor.

(3) Any under-recovery or over-recovery of Supplementary Capacity Charge as a result of under-achievement or over-achievement, vis-à-vis the $NAPAF$ in Peak Hours and Off-Peak Hours of a Season (High Demand Season or Low Demand Season, as the case may be) shall not be adjusted with under-achievement or over-achievement, vis-à-vis the $NAPAF$ in Peak Hours and Off-Peak Hours of the other Season:

Provided that within a Season, the shortfall in recovery of Supplementary Capacity Charge for cumulative Off-Peak Hours derived based on NAPAFA, shall be allowed to be off-set by over-achievement of PAF, if any, and consequent notional over-recovery of Supplementary Capacity Charge for cumulative Peak Hours in that Season:

Provided further that within a Season, the shortfall in recovery of Supplementary Capacity Charge for cumulative Peak Hours derived based on NAPAFA, shall not be allowed to be off-set by over-achievement of PAF, if any, and consequent notional over-recovery of Supplementary Capacity Charge for cumulative Off-Peak Hours in that Season.

(4) Normative Plant Availability Factor for Peak Hours and Off-Peak Hours in a month for the purpose of Supplementary Capacity Charge and Peak Hours and Off-Peak Hours shall be considered in the manner specified in Clause (3) of Regulation 42 of these regulations. The PAFM shall be worked out in accordance with Clause (5) of the Regulation 42 of these regulations.]⁷⁰

43. Computation and Payment of Energy Charge for Thermal Generating Stations [and Supplementary Energy Charge for Coal or Lignite based Thermal Generating Stations]⁷¹:

(1) The energy charge shall cover the primary and secondary fuel cost and limestone consumption cost (where applicable), and shall be payable by every beneficiary for the

⁷⁰ Added *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

⁷¹ Added *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

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

$$\text{Energy Charges} = (\text{Energy charge rate in Rs./kWh}) \times \{\text{Scheduled energy-(ex bus) for the month in kWh}\}$$

[(1a) The supplementary energy charge on account of emission control system shall cover the differential energy charges due to auxiliary energy consumption and cost of reagent consumption, and shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on ex-power plant basis, at the supplementary energy charge rate of the month. Total supplementary energy charge payable to the generating company for a month shall be:

$$\text{Supplementary Energy Charges} = (\text{Supplementary energy charge rate in Rs./kWh}) \times \{\text{Scheduled energy (ex-bus) for the month in kWh}\}]^{72}$$

(2) Energy charge rate (ECR) [and Supplementary Energy charge rate]⁷³ in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae:

(a) [ECR]⁷⁴For coal based and lignite fired stations:

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

⁷² Added *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

⁷³ Added *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

⁷⁴ Inserted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

[(aa) Supplementary ECR for coal and lignite based thermal generating stations:

$$\text{Supplementary ECR} = (\Delta\text{ECR}) + [(\text{SRC} \times \text{LPR} / 10) / (100 - (\text{AUX}_n + \text{AUX}_{en}))]$$

Where,

(ΔECR) = Difference between ECR with revised auxiliary energy consumption with emission control system equivalent to ($\text{AUX}_n + \text{AUX}_{en}$) and ECR with normative auxiliary energy consumption as specified in these regulations and revised;

SRC = Specific reagent consumption on account of revised emission standards (in g/kWh);

LPR = Weighted average landed price of reagent for emission control system (in Rs./kg).]⁷⁵

(b) For gas and liquid fuel based stations:

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

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = (a) Weighted Average Gross calorific value of coal as received, in kCal per kg for coal based stations less 85 Kcal/Kg on account of variation during storage at generating station;

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

⁷⁵ Inserted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

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

CVSF = Calorific value of secondary fuel, in kCal per ml;

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

SHR = Gross station heat rate, in kCal per kWh;

LC = Normative limestone consumption in kg per kWh;

LPL = Weighted average landed cost of limestone in Rupees per kg;

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

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

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

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

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

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

Provided further that the weighted average price of alternative source of fuel shall not exceed 30% of base price of fuel computed as per clause (5) of this Regulation:

Provided also that where the energy charge rate based on weighted average price of fuel upon use of alternative source of fuel supply exceeds 30% of base energy charge rate as approved by the Commission for that year or exceeds 20% of energy charge rate for the previous month, whichever is lower shall be considered and in that event, prior consultation with beneficiary shall be made at least three days in advance.

(4) Where biomass fuel is used for blending with coal, the landed cost of biomass fuel shall be worked out based on the delivered cost of biomass at the unloading point of the generating station, inclusive of taxes and duties as applicable. The energy charge rate of the blended fuel shall be worked out considering consumption of biomass based on blending ratio as specified by Authority or actual consumption of biomass, whichever is lower.

(5) The Commission through specific tariff orders to be issued for each generating station shall approve the energy charge rate at the start of the tariff period. The energy charge rate so approved shall be the base energy charge rate for the first year of the tariff period. The base energy charge rate for subsequent years shall be the energy charge computed after escalating the base energy charge rate by escalation rates for payment purposes as notified by the Commission from time to time under competitive bidding guidelines.

(6) The tariff structure as provided in this Regulation 42 and Regulation 43 of these regulations may be adopted by the Department of Atomic Energy, Government of India for the nuclear generating stations by specifying annual fixed cost (AFC), normative annual plant availability factor (NAPAF), installed capacity (IC), normative auxiliary energy consumption (AUX) and energy charge rate (ECR) for such stations.

44. Computation and Payment of Capacity Charge and Energy Charge for Hydro Generating Stations:

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

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

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

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

Where,

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

NAPAF = Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

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

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

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

Where

AUX = Normative auxiliary energy consumption in percentage

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

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

N = Number of days in the month

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

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

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

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

Where,

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

FEHS = Free energy for home State, in percent, as mentioned in Note 3 under Regulation 55 of these regulations.

(6) In case the saleable scheduled energy (ex-bus) of a hydro generating station during a year is less than the saleable design energy (ex-bus) for reasons beyond the control of the generating station, the treatment shall be as per clause (7) of this Regulation, on an application filed by the generating company.

(7) Shortfall in energy charges in comparison to fifty percent of the annual fixed cost shall be allowed to be recovered in six equal monthly installments:

Provided that in case actual generation from a hydro generating station is less than the design energy for a continuous period of four years on account of hydrology factor, the generating station shall approach the Central Electricity Authority with relevant hydrology data for revision of design energy of the station.

(8) Any shortfall in the energy charges on account of saleable scheduled energy (ex-bus) being less than the saleable design energy (ex-bus) during the tariff period 2014-19 which was beyond the control of the generating station and which could not be recovered during the said tariff period shall be recovered in accordance with clause (7) of this Regulation.

(9) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds $\{ DE \times (100 - AUX) \times (100 - FEHS) / 10000 \}$ MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only.

(10) In case of the hydro generating stations located in the State of Jammu and Kashmir, any expenditure incurred for payment of water usage charges to the State Water Resources Development Authority, Jammu under Jammu & Kashmir Water Resources (Regulations and Management) Act, 2010 shall be payable by the beneficiaries as additional energy charge in proportion of the supply of power from the generating stations on month to month basis:

Provided that the provisions of this clause shall be subject to the decision of the Hon'ble High Court of Jammu & Kashmir in OWP No. 604/2011 and shall stand modified in accordance with the decision of the High Court.

45. Computation and Payment of Capacity Charge and Energy Charge for Pumped Storage Hydro Generating Stations:

(1) The fixed cost of a pumped storage hydro generating station shall be computed on annual basis, based on norms specified under these regulations, and recovered on monthly basis as capacity charge. The capacity charge shall be payable by the beneficiaries in proportion to their respective allocation in the saleable capacity of the generating station, i.e., the capacity excluding the free power to the home State:

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

(2) The capacity charge payable to a pumped storage hydro generating station for a calendar month shall be:

$(AFC \times NDM / NDY)$ (In Rupees), if actual Generation during the month is \geq 75 % of the Pumping Energy consumed by the station during the month and $\{(AFC \times NDM / NDY) \times (\text{Actual Generation during the month during peak hours} / 75\% \text{ of the Pumping Energy consumed by the station during the month})\}$ (in Rupees)}, if actual Generation during the month is $<$ 75 % of the Pumping Energy consumed by the station during the month.

Where,

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

NDM = Number of days in the month

NDY = Number of days in the year

Provided that there would be adjustment at the end of the year based on actual generation and actual pumping energy consumed by the station during the year.

(3) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary in excess of the design energy plus 75% of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir, at a flat rate equal to the average energy charge rate of 20 paise per kWh, excluding free energy, if any, during the calendar month, on ex power plant basis.

(4) Energy charge payable to the generating company for a month shall be:

$$= 0.20 \times \{ \text{Scheduled energy (ex-bus) for the month in kWh} - (\text{Design Energy for the month (DEm)} + 75\% \text{ of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir of the month}) \} \times (100 - \text{FEHS}) / 100.$$

Where,

DEm = Design energy for the month specified for the hydro generating station,
in MWh

FEHS = Free energy for home State, in per cent, as mentioned in Note 3 under Regulation 55 of these regulations, if any.

Provided that in case the Scheduled energy in a month is less than the Design Energy for the month plus 75% of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir of the month, then the energy charges payable by the beneficiaries shall be zero.

(5) The generating company shall maintain the record of daily inflows of natural water into the upper elevation reservoir and the reservoir levels of upper elevation reservoir and lower elevation reservoir on hourly basis. The generator shall be required to maximize the peak hour supplies with the available water including the natural flow of water. In case it is established that generator is deliberately or otherwise without any valid reason, is not pumping water from lower elevation reservoir to the higher elevation during off-peak period or not generating power to its potential or wasting natural flow of water, the capacity charges of the day shall not be payable by the beneficiary. For this purpose, outages of the unit(s)/station including planned outages and the forced outages up to 15% in a year shall be construed as the valid reason for not pumping water from lower elevation reservoir to the higher elevation during off-peak period or not generating power using energy of pumped water or natural flow of water:

Provided that the total capacity charges recovered during the year shall be adjusted on pro-rata basis in the following manner in the event of total machine outages in a year exceeds 15%:

$$(ACC)_{adj} = (ACC) R \times (100 - ATO) / 85$$

Where,

(ACC)_{adj} – Adjusted Annual Capacity Charges

(ACC) R – Annual Capacity Charges recovered

ATO - Total Outages in percentage for the year including forced and planned outages

Provided further that the generating station shall be required to declare its machine availability daily on day ahead basis for all the time blocks of the day in line with the scheduling procedure of Grid Code.

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

46. Computation and Payment of Transmission Charge for Inter-State Transmission System and Communication System:

(1) The fixed cost of the transmission system or communication system forming part of transmission system shall be computed on annual basis, in accordance with norms contained in these regulations, aggregated as appropriate, and recovered on monthly basis as transmission charge from the users, who shall share these charges in the manner specified in clause (2) of this Regulation.

(2) The Transmission charge (inclusive of incentive) payable for a calendar month for transmission system or part shall be computed for each region separately for AC and DC system as under:

For AC system:

a) For TAFM $n \leq 98.00\%$

$$AFC \times (NDM_n / NDY) \times (TAFM_n / 98.00\%)$$

b) For TAFM n : $98.00\% < TAFM_n < 98.50\%$

$$AFC \times (NDM_n / NDY) \times (1)$$

c) For $TAFM_n$: $98.50\% < TAFM_n \leq 99.75\%$

$$AFC \times (NDM_n / NDY) \times (TAFM_n / 98.50\%)$$

d) For $TAFM_n \geq 99.75\%$

$$AFC \times (NDM_n / NDY) \times (99.75\% / 98.50\%)$$

Where,

AFC = Annual Fixed Cost specified for the year in Rupees

NDM_n = Number of days in nth month

NDY = Number of days in the year

TAFM_n = Transmission System availability factor for the nth month, in percent
computed in accordance with Appendix II.

For HVDC bi-pole links and HVDC back-to-back Stations:

$$TC_1 = AFC \times (NDM_1 / NDY) \times (TAFM_1 / NATAF)$$

$$TC_2 = AFC \times (NDM_2 / NDY) \times (TAFM_2 / NATAF) - TC_1$$

$$TC_3 = AFC \times (NDM_3 / NDY) \times (TAFM_3 / NATAF) - (TC_1 + TC_2)$$

$$TC_4 = AFC \times (NDM_4 / NDY) \times (TAFM_4 / NATAF) - (TC_1 + TC_2 + TC_3)$$

....

$$TC_{11} = AFC \times (NDM_{11} / NDY) \times (TAFM_{11} / NATAF) - (TC_1 + TC_2 + \dots + TC_{10})$$

$$TC_{12} = AFC \times (TAFY / NATAF) - (TC_1 + TC_2 + \dots + TC_{11});$$

If,

(i) TAFM: $95.00\% < TAFM < 97.50\%$, then $TAFM = NATAF$;

(ii) TAFM: $97.50\% \leq TAFM \leq 99.75\%$, then $NATAF = 97.50\%$; and

(iii) For $TAFM \geq 99.75\%$, then $TAFM = 99.75\%$ and $NATAF = 97.50\%$.

Where,

TC _n =	Transmission charges inclusive of incentive up to the nth month
AFC =	Annual fixed cost specified for the year in rupees
NATAF =	Normative Annual Transmission Availability Factor in percentage
NDM _n =	No of days upto the end of nth month of the financial year
NDY =	No. of days in the year
TAFM _n =	Transmission availability factor upto the end of the nth month of the year in percentage computed in accordance with Appendix –II
TAFY =	Transmission availability factor in percent for the year.

(3) The transmission charges shall be calculated separately for part of the transmission system having different NATAF and aggregated thereafter, according to their sharing by the long term customers. The charges of the communication system shall be a part of the transmission charges and shall be shared by the long term customers.

47. Deviation Charges: (1) Variations between actual net injection and scheduled net injection for the generating stations, and variations between actual net drawl and scheduled net drawl for the beneficiaries shall be treated as their respective deviations and charges for such deviations shall be governed by the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related matters) Regulations, 2014.

(2) Actual net deviation of every Generating Station and Beneficiary shall be metered on its periphery through special energy meters (SEMs) installed by the Central Transmission Utility (CTU), and computed in MWh for each 15-minute time block by the concerned Regional Load Despatch Centre.

CHAPTER - 12

NORMS OF OPERATION

48. Recovery of Tariff and Incentive: (1) Recovery of capacity charge, energy charge, [supplementary capacity charge, supplementary energy charge,]⁷⁶ transmission charge and incentive by the generating company and the transmission licensee shall be based on the achievement of the operational norms specified in the Regulation 49 to Regulation 52 of these regulations.

(2) The Commission may on its own revise the norms of Station Heat Rate specified in Regulation 49(C) of these regulations in respect of any of the generating stations for which relaxed norms have been specified.

Norms of operation for thermal generating station

49. The norms of operation as given hereunder shall apply to thermal generating stations:

(A) Normative Annual Plant Availability Factor (NAPAF)

(a) For all thermal generating stations, except those covered under clauses (b), (c), (d), & (e) - 85% ;

⁷⁶ Inserted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

(b) For following Lignite-fired Thermal generating stations of NLC India Ltd:

TPS-I	72%
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(c) For following Thermal Generating Stations of DVC:

Bokaro TPS	75%
Chandrapura TPS	75%
Durgapur TPS	74%

(d) For following Gas based Thermal Generating Stations of NEEPCO:

Assam GPS	72%
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(e) For Lignite fired Generating Stations using Circulatory Fluidized Bed Combustion (CFBC) Technology and Generating stations based on coal rejects:

1. First Three years from the date of commercial operation – 75%
2. For next year after completion of three years of the date of commercial operation – 80%

(B) Normative Annual Plant Load Factor (NAPLF) for Incentive:

- (a) For all thermal generating stations, except those covered under clauses (b), (c) - 85% ;
- (b) For following Lignite-fired Thermal generating stations of NLC India Ltd:

TPS –I	75%
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- (c) For following Thermal Generating Stations of Damodar Valley Corporation (DVC):

Bokaro TPS	80%
Chandrapur TPS	80%
Durgapur TPS	80%

(C) Gross Station Heat Rate:

(a) Existing Thermal Generating Stations

- (i) For Coal-based Thermal Generating Stations, other than those covered under clauses (ii) and (iii) below:

200/210/250 MW Sets	500 MW Sets (Sub-critical)
2,430 kCal/kWh	2,390 kCal/kWh

Note 1

In respect of 500 MW and above units where the boiler feed pumps are electrically operated, the gross station heat rate shall be 40 kCal/kWh lower than the gross station heat rate specified above.

Note 2

For the 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 gross station heat rate of the combinations.

Note 3

The normative gross station heat rate above is exclusive of the compensation specified in Regulation 6.3 B of the Grid Code. The generating company shall, based on unit loading factor, consider the compensation in addition to the normative gross heat rate above.

Note 4

The gross station heat rate for the unit capacity of less than 200 MW sets, shall be dealt on case to case basis.

(ii) For following Thermal generating stations of NTPC Ltd:

Talcher TPS	2,830 kCal/kWh
Tanda TPS	2,750 kCal/kWh

(iii) For Thermal Generating Stations of Damodar Valley Corporation (DVC):

Bokaro TPS	2,700 kCal/kWh
Chandrapura TPS (Unit 3)	3,000 kCal/kWh
Durgapur TPS	2,750 kCal/kWh

(iv) For Lignite-fired Thermal Generating Stations: For lignite-fired thermal generating stations, except for TPS-I and TPS-II (Stage I & II) of NLC India Ltd, the gross station heat rates specified under sub-clause (i) for coal-based thermal generating stations shall be applied with correction, using multiplying factors as given below:

- (a) For lignite having 50% moisture: 1.10
- (b) For lignite having 40% moisture: 1.07

(c) For lignite having 30% moisture: 1.04

For other values of moisture content, multiplying factor shall be pro rated for moisture content between 30-40% and 40-50% depending upon the rated values of multiplying factor for the respective range given under sub-clauses (a) to (c) above.

(v) TPS-I and TPS-II (Stage I & II) of NLC India Ltd:

TPS-I: 4,000 kCal/kWh

TPS-II: 2,890 kCal/kWh

TPS- I (Expansion): 2,720 kCal/kWh

(vi) Open Cycle Gas Turbine/Combined Cycle Generating Stations: For the following gas based thermal generating stations:

Name of generating station	Combined cycle (kCal/kWh)	Open Cycle (kCal/kWh)
Gandhar GPS	2,040	2,960
Kawas GPS	2,050	3,010
Anta GPS	2,075	3,010
Dadri GPS	2,000	3,010
Auraiya GPS	2,100	3,045
Faridabad GPS	1,975	2,900
Kayamkulam GPS	2,000	2,900
Assam GPS	2,600	3,578
Agartala GPS	2,600	3,578
Ratnagiri	1,820	2,641

(b) Thermal Generating Stations achieving COD on or after 1.4.2009:

(i) For Coal-based and lignite-fired Thermal Generating Stations:

1.05 X Design Heat Rate (kCal/kWh)

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

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

Pressure Rating (Kg/cm ²)	150	170	170
SHT/RHT (°C)	535/535	537/537	537/565
Type of BFP	Electrical Driven	Turbine Driven	Turbine Driven
Max Turbine Heat Rate (kCal/kWh)	1955	1950	1935
Min. Boiler Efficiency			
Sub-Bituminous Indian Coal	0.86	0.86	0.86
Bituminous Imported Coal	0.89	0.89	0.89
Max. Design Heat Rate (kCal/kWh)			
Sub-Bituminous Indian Coal	2273	2267	2250
Bituminous Imported Coal	2197	2191	2174

Pressure Rating (Kg/cm ²)	247	247	270	270
SHT/RHT (°C)	537/565	565/593	593/593	600/ 600
Type of BFP	Turbine Driven	Turbine Driven	Turbine Driven	Turbine Driven
Max Turbine Heat Rate (kCal/kWh)	1900	1850	1810	1800
Min. Boiler Efficiency				
Sub-Bituminous Indian Coal	0.86	0.86	0.865	0.865

Bituminous Imported Coal	0.89	0.89	0.895	0.895
Max. Design Heat Rate (kCal/kWh)				
Sub-Bituminous Indian Coal	2222	2151	2105	2081
Bituminous Imported Coal	2135	2078	2034	2022

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

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

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

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

Provided also that in case of coal based generating station if one or more generating units were declared under commercial operation prior to 1.4.2019, the heat rate norms for those generating units as well as generating units declared under commercial operation on or after 1.4.2019 shall be lowest of the heat rate norms considered by the Commission during tariff period 2014-19 or those arrived at by above

methodology or the norms as per the sub-clause (C)(a)(i) of this Regulation:

Provided also that in case of lignite-fired generating stations (including stations based on CFBC technology), maximum design heat rates shall be increased using factor for moisture content given in sub-clause (C)(a)(iv) of this Regulation:

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

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

(c) For Gas-based/ Liquid based Thermal Generating Unit(s)/ Block(s) having COD on or after 1.4.2009:

For Natural Gas = $1.050 \times \text{Design Heat Rate of the unit/block (kCal/kWh)}$

For RLNG = $1.071 \times \text{Design Heat Rate of the unit/block for Liquid Fuel (kCal/kWh)}$

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

(D) Secondary Fuel Oil Consumption:

- (a) For Coal-based generating stations other than at (c) below: 0.50 ml/kWh
- (b) (i) For Lignite-fired generating stations except TPS-I: 1.0 ml/kWh

(ii) For TPS-I: 1.5 ml/kWh

(c) For Coal-based generating stations of DVC:

Bokaro TPS	1.5 ml/kWh
Chandrapur TPS	1.5 ml/kWh
Durgapur TPS	2.4 ml/kWh

(d) For Generating Stations based on Coal Rejects: 2.0 ml/kWh

(E) Auxiliary Energy Consumption:

(a) For Coal-based generating stations except at (b) below:

S. No.	Generating Station	With Natural Draft cooling tower or without cooling tower
(i)	200 MW series	8.50%
(ii)	300 MW and above	
	Steam driven boiler feed pumps	5.75%
	Electrically driven boiler feed pumps	8.00%

Provided that for thermal generating stations with induced draft cooling towers and where tube type coal mill is used, the norms shall be further increased by 0.5% and 0.8% respectively:

Provided further that Additional Auxiliary Energy Consumption as follows shall be allowed for plants with Dry Cooling Systems:

Type of Dry Cooling System	(% of gross generation)
Direct cooling air cooled condensers with mechanical draft fans	1.0%
Indirect cooling system employing jet condensers with pressure recovery turbine and natural draft tower	0.5%

Note : The auxiliary energy consumption for the unit capacity of less than 200 MW sets shall be dealt on case to case basis.

(b) For other Coal-based generating stations:

(i)	Talcher Thermal Power Station	10.50%
(ii)	Tanda Thermal Power Station	11.50%
(iii)	Bokaro Thermal Power Station	10.25%
(iv)	Chandrapur Thermal Power Station	9.50%
(v)	Durgapur Thermal Power Station	10.50%

(c) For Gas Turbine /Combined Cycle generating stations:

(i)	Combined Cycle	:	2.75%
(ii)	Open Cycle	:	1.00%

Provided that where the gas based generating station is using electric motor driven Gas Booster Compressor, the Auxiliary Energy Consumption in case of Combine Cycle mode shall be 3.30% (including impact of air-cooled condensers for Steam Turbine Generators):

Provided further that an additional Auxiliary Energy Consumption of 0.35% shall be allowed for Combine Cycle Generating Stations having direct cooling air cooled condensers with mechanical draft fans.

(d) For Lignite-fired thermal generating stations:

(i) For all generating stations with 200 MW sets and above:

The auxiliary energy consumption norms shall be 0.5 percentage point more than the auxiliary energy consumption norms of coal-based generating stations at (E)

(a) above.

Provided that for the lignite fired stations using CFBC technology, the auxiliary energy consumption norms shall be 1.5 percentage point more than the auxiliary energy consumption norms of coal-based generating stations at (E) (a) above.

(ii) For Barsingsar Generating station of NLC using CFBC technology: 12.50%

(iii) For TPS-I, TPS-I (Expansion) and TPS-II Stage-I&II of NLC India Ltd.:

TPS-I	12.00%
TPS-II	10.00%
TPS-I (Expansion)	8.50%

[Omitted]⁷⁷

(e) For Generating Stations based on coal rejects: 10%

[(f) Norms of Auxiliary energy consumption for emission control system (AUXen) of thermal generating stations:

⁷⁷ Omitted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

Name of Technology	AUX _{en} (as % of gross generation)
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(1) For reduction of emission of sulphur dioxide:

a) Wet Limestone based FGD system (without Gas to Gas heater)	1.0%
b) Lime Spray Dryer or Semi dry FGD System	1.0%
c) Dry Sorbent Injection System (using Sodium bicarbonate)	NIL

d) For CFBC Power plant (furnace injection)	NIL
e) Sea water based FGD system (without Gas to Gas heater)	0.7%

(2) For reduction of emission of oxide of nitrogen :

a) Selective Non-Catalytic Reduction system	NIL
b) Selective Catalytic Reduction system	0.2%

Provided that where the technology is installed with "Gas to Gas" heater, AUX_{en} specified above shall be increased by 0.3% of gross generation.]⁷⁸

[(F) Norms for consumption of reagent: (1) The normative consumption of specific reagent for various technologies for reduction of emission of sulphur dioxide shall be as under:

⁷⁸ Inserted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

(a) For Wet Limestone based Flue Gas De-sulphurisation (FGD) system: The specific limestone consumption (g/kWh) shall be worked out by following formula:

$$[K \times \text{SHR} \times S / \text{CVPF}] \times [85 / \text{LP}]$$

Where,

S = Sulphur content in percentage,

LP = Limestone Purity in percentage,

SHR= Gross station heat rate, in kCal per kWh;

CVPF = (a) Weighted Average Gross calorific value of coal as received, in kCal per kg for coal based thermal generating stations less 85 kCal/kg on account of variation during storage at generating station;

(b) Weighted Average Gross calorific value of lignite as received, in kCal per kg, as applicable for lignite based thermal generating stations:

Provided that value of K shall be equivalent to $(35.2 \times \text{Design SO}_2 \text{ Removal Efficiency}/96\%)$ for units to comply with SO₂ emission norm of 100/200 mg/Nm³ or $(26.8 \times \text{Design SO}_2 \text{ Removal Efficiency}/73\%)$ for units to comply with SO₂ emission norm of 600 mg/Nm³;

Provided further that the limestone purity shall not be less than 85%.

(b) For Lime Spray Dryer or Semi-dry Flue Gas Desulphurisation (FGD) system: The specific lime consumption shall be worked out based on minimum purity of lime (LP)

as at 90% or more by applying formula $[6 \times 90 / LP]$ g/kWh;

(c) **For Dry Sorbent Injection System (using sodium bicarbonate):** The specific consumption of sodium bicarbonate shall be 12 g per kWh at 100% purity.

(d) **For CFBC Technology (furnace injection) based generating station:** The specific limestone consumption for CFBC based generating station (furnace injection) shall be computed with the following formula:

$$[62.9 \times S \times SHR / CVPF] \times [85 / LP]$$

Where

S = Sulphur content in percentage,

LP = Limestone Purity in percentage,

SHR = Gross station heat rate, in kCal per kWh,

CVPF = (a) Weighted Average Gross calorific value of coal as received, in kCal per kg for coal based thermal generating stations less 85 kCal/kg on account of variation during storage at generating station;

(b) Weighted Average Gross calorific value of lignite as received, in kCal per kg as applicable for lignite based thermal generating stations;

(e) **For Sea Water based Flue Gas Desulphurisation (FGD) system:** The reagent used in sea water based Flue Gas Desulphurisation (FGD) system shall be NIL

(2) The normative consumption of specific reagent for various technologies for reduction of emission of oxide of nitrogen shall be as below:

(a) **For Selective Non-Catalytic Reduction (SNCR) System:** The specific urea consumption of SNCR system shall be 1.2 g per kWh at 100% purity of urea.

(b) **For Selective Catalytic Reduction (SCR) System:** The specific ammonia consumption of SCR system shall be 0.6 g per kWh at 100% purity of ammonia.]⁷⁹

50. Norms of Operation for Hydro Generating Stations: The norms of operation as given hereunder shall apply to hydro generating station:

(A) Normative Annual Plant Availability Factor (NAPAF): (1) The following normative annual plant availability factor (NAPAF) shall apply to hydro generating station:

- (a) Storage and Pondage type plants with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of up to 8%, and where plant availability is not affected by silt: 90%;
 - (b) In case of storage and pondage type plants with head variation between full reservoir level and minimum draw down level is more than 8% and when plant availability is not affected by silt, the month wise peaking capability as provided by the project authorities in the DPR (approved by CEA or the State Government) shall form basis of fixation of NAPAF;
 - (c) Pondage type plants where plant availability is significantly affected by silt: 85%.
- Run-of-river generating stations: NAPAF to be determined plant-wise, based on

⁷⁹ Added *vide* First Amendment Regulations, 2020 *w.e.f* 03.02.2021

10-day design energy data, moderated by past experience where available/relevant.

- (2) A further allowance may be made by the Commission in NAPAF determination under special circumstances, e.g. abnormal silt problem or other operating conditions, and known plant limitations.
- (3) A further allowance of 5% may be allowed for difficulties in North East Region.
- (4) Based on the above, the Normative annual plant availability factor (NAPAF) of the hydro generating stations already in operation shall be as follows:-

Station	Type of Plant	Plant Capacity No. of Units x MW	NAPAF (%)
THDC			
THDC Stage I	Storage	4x250	80
KHEP	Storage	4x100	68
NHPC			
Bairasul	Pondage	3x60	90
Loktak	Pondage	3x35	88
Salal	ROR	6x115	64
Tanakpur	ROR	3x31.4	59
Chamera-I	Pondage	3x180	90
Uri I	ROR	4x120	74
Rangit	Pondage	3x20	90
Chamera-II	Pondage	3x100	90
Dhauliganga	Pondage	4x70	78
Dulhasti	Pondage	3x130	90
Teesta-V	Pondage	3x170	87
Sewa-II	Pondage	3x40	89
TLDP III	Pondage	4x33	77
Chamera III	Pondage	3x77	87
Chutak	ROR	4x11	48
Nimmo Bazgo	Pondage	3x15	70
Uri II	ROR	4x60	70
Parbati III	Pondage	4x130	43

Station	Type of Plant	Plant Capacity No. of Units x MW	NAPAF (%)
NHDC			
Indira Sagar	Storage	8x125	87
Omkareshwar	Pondage	8x65	90
NEEPCO			
Kopili I	Storage	4x50	69
Khandong	Storage	2x25	67
Kopili II	Storage	1x25	69
Doyang	Storage	3x25	70
Ranganadi	Pondage	3x135	88
NTPC			
Koldam	Storage	4x200	90
SJVNL			
NathpaJhakri	Pondage	6x250	90
Rampur	Pondage	6x68.67	85
DVC			
Panchet	Storage	2x40	80
Tilaya	Storage	2x2	80
Maithon	Storage	3x20	80
Teesta III	Pondage	6x200	85

(B) In case of pumped storage hydro generating stations, the quantum of electricity required for pumping water from down-stream reservoir to up-stream reservoir shall be arranged by the beneficiaries duly taking into account the transmission and distribution losses up to the bus bar of the generating station. In return, beneficiaries shall be entitled to equivalent energy of 75% of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir from the generating station during peak hours and the generating station shall be under obligation to supply such quantum of electricity during peak hours:

Provided that in the event of the beneficiaries failing to supply the desired level of energy during off-peak hours, there will be pro-rata reduction in their energy entitlement from the station during peak hours:

Provided further that the beneficiaries may assign or surrender their share of capacity in the generating station, in part or in full, or the capacity may be reallocated by the Central Government, and in that event, the owner or assignee of the capacity share shall be responsible for arranging the equivalent energy to the generating station in off-peak hours, and be entitled to corresponding energy during peak hours in the same way as the original beneficiary was entitled.

(C) Auxiliary Energy Consumption (AEC):

Type of Station	AEC	
	Installed Capacity above 200 MW	Installed Capacity upto 200 MW
Surface		
Rotating Excitation	0.7%	0.7%
Static	1.0%	1.2%
Underground		
Rotating Excitation	0.9%	0.9%
Static	1.2%	1.3%

Norms of operation for transmission system

51. Normative Annual Transmission System Availability Factor (NATAF):

(a) For recovery of Annual Fixed Cost, NATAF shall be as under:

(1) AC system: 98.00%;

(2) HVDC bi-pole links 95.00% and HVDC back-to-back stations: 95.00%:

Provided that the normative annual transmission availability factor of the

HVDC bi-pole links shall be 85% for first twelve months from the date of commercial operation.

(b) For Incentive, NATAF shall be as under:

- (1) AC system: 98.50%;
- (2) HVDC bi-pole links and HVDC back-to-back Stations: 97.50%:

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

Provided further that for AC system, actual outage hours shall be considered for computation of availability upto two trippings per year. After two trippings in a year, for every tripping, additional 12 hours outage shall be considered in addition to the actual outage hours:

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

52. Auxiliary Energy Consumption in the Sub-station

(1) AC System: The charges for auxiliary energy consumption in the AC sub-station for the purpose of air-conditioning, lighting and consumption in other equipment shall be borne by the transmission licensee and included in the normative operation and maintenance expenses.

(2) HVDC sub-station: For auxiliary energy consumption in HVDC sub-stations, the Central Government may allocate an appropriate share from one or more ISGS. The charges for such power shall be borne by the transmission licensee from the normative operation and maintenance expenses.

CHAPTER - 13

SCHEDULING, ACCOUNTING AND BILLING

53. Scheduling: The methodology for scheduling and dispatch for the generating station shall be as specified in the Grid Code.

54. Metering and Accounting: For metering and accounting, the provisions of the Grid Code shall be applicable.

55. Billing and Payment of charges: (1) Bills shall be raised for capacity charge and energy charge by the generating company and for transmission charge by the transmission licensee on monthly basis in accordance with these regulations, and payments shall be made by the beneficiaries or the long term customers directly to the generating company or the transmission licensee, as the case may be:

Provided that the physical copy of the Bill in Original at the office of the Authorised Person of the beneficiary or long term customer, as the case may be, or the scanned copy of Original Bill through official email ID of the Authorised Signatory of the Generating Company or the Transmission Licensee, as the case may be, shall be recognized as valid mode of presentation of Bill:

Provided further that Authorized Signatory or Signatories (official designation only) shall be notified in advance by the Managing Director or Chief Executive Officer of the Company and any change in the list of Authorised Signatory for the purpose, shall be communicated in the same manner.

(2) Payment of the capacity charge for a thermal generating station shall be shared by

the beneficiaries of the generating station as per their percentage shares for the month (inclusive of any allocation out of the unallocated capacity) in the installed capacity of the generating station. Payment of capacity charge and energy charge for a hydro generating station shall be shared by the beneficiaries of the generating station in proportion to their shares (inclusive of any allocation out of the unallocated capacity) in the saleable capacity (to be determined after deducting the capacity corresponding to free energy to home State as per Note 3 herein.

Note 1

Shares or allocations of each beneficiary in the total capacity of Central sector generating stations shall be as determined by the Central Government, inclusive of any allocation made out of the unallocated capacity. The shares shall be applied in percentages of installed capacity and shall normally remain constant during a month. Based on the decision of the Central Government, the changes in allocation shall be communicated by the Member-Secretary, Regional Power Committee in advance, at least three days prior to beginning of a calendar month, except in case of an emergency calling for an urgent change in allocations out of unallocated capacity. The total capacity share of a beneficiary would be sum of its capacity share plus allocation out of the unallocated portion. In the absence of any specific allocation of unallocated power by the Central Government, the unallocated power shall be added to the allocated shares in the same proportion as the allocated shares.

Note 2

The beneficiaries may propose surrendering part of their allocated firm share to other States within or outside the region. In such cases, depending upon the technical

feasibility of power transfer and specific agreements reached by the generating company with other States within or outside the region for such transfers, the shares of the beneficiaries may be re-allocated by the Central Government for a specific period (in complete months) from the beginning of a calendar month. When such re-allocations are made, the beneficiaries who surrender the share shall not be liable to pay capacity charges for the surrendered share. The capacity charges for the capacity surrendered and reallocated as above shall be paid by the State(s) to whom the surrendered capacity is allocated. Except for the period of reallocation of capacity as above, the beneficiaries of the generating station shall continue to pay the full capacity charges as per allocated capacity shares. Any such reallocation and its reversion shall be communicated to all concerned by the Member Secretary, Regional Power Committee in advance, at least three days prior to such reallocation or reversion taking effect.

Note 3

FEHS = Free energy for home State, in percent and shall be taken as 13% or actual whichever is less.

Provided that in cases where the site of a hydro project is awarded to a developer, by the State Government by following a two stage transparent process of bidding, the 'free energy' shall be taken as 13%, in addition to energy corresponding to 100 units of electricity to be provided free of cost every month to every project affected family for a period of 10 years from the date of commercial operation of the generating station:

Provided further that the generating company shall submit detailed

quantification of energy corresponding to 100 units of electricity to be provided free of cost every month to every month to every project affected family for a period of 10 years from the date of commercial operation.

56. Recovery of Statutory Charges: The generating company shall recover the statutory charges imposed by the State and Central Government such as electricity duty, water cess by considering normative parameters specified in these regulations. In case of the electricity duty is applied on the auxiliary energy consumption, such amount of electricity duty shall apply on normative auxiliary energy consumption of the generating station (excluding colony consumption) and apportioned to each of the beneficiaries in proportion to their schedule dispatch during the month.

57. Sharing of Transmission Charges: (1) The sharing of transmission charges shall be governed by the Sharing Regulations.

(2) The charges determined under these regulations in relation to communication system forming part of transmission system shall be shared by the beneficiaries or long term customers in accordance with the Sharing Regulations:

Provided that charges determined under these regulations in relation to communication system other than that of central portion shall be shared by the beneficiaries in proportion to the capital cost belonging to respective beneficiaries.

58. Rebate. (1) For payment of bills of the generating company and the transmission licensee through letter of credit on presentation or through National Electronic Fund Transfer (NEFT) or Real Time Gross Settlement (RTGS) payment mode within a period

of 5 days of presentation of bills by the generating company or the transmission licensee, a rebate of 1.50% shall be allowed.

Explanation: In case of computation of '5 days', the number of days shall be counted consecutively without considering any holiday. However, in case the last day or 5th day is official holiday, the 5th day for the purpose of Rebate shall be construed as the immediate succeeding working day (as per the official State Government's calendar, where the Office of the Authorised Signatory or Representative of the Beneficiary, for the purpose of receipt or acknowledgement of Bill is situated).

(2) Where payments are made on any day after 5 days and within a period of 30 days of presentation of bills by the generating company or the transmission licensee, a rebate of 1% shall be allowed.

59. Late payment surcharge: [1]⁸⁰In case the payment of any bill for charges payable under these regulations is delayed by a beneficiary or long term customers as the case may be, beyond a period of 45 days from the date of presentation of bills, a late payment surcharge at the rate of 1.50% per month shall be levied by the generating company or the transmission licensee, as the case may be.

[(2) Unless otherwise agreed by the parties, the charges payable by a beneficiary or long term customer shall be first adjusted towards late payment surcharge on the outstanding charges and thereafter, towards monthly charges billed by the generating company or the transmission licensee, as the case may be, starting from the longest overdue bill.]⁸¹

⁸⁰ Renumbered *vide* Second Amendment Regulations, 2021 *w.e.f* 13.09.2021

⁸¹ Added *vide* Second Amendment Regulations, 2021 *w.e.f* 13.09.2021

CHAPTER - 14

SHARING OF BENEFITS

60. Sharing of gains due to variation in norms: (1) The generating company or the transmission licensee shall workout gains based on the actual performance of applicable Controllable parameters as under:

- i) Station Heat Rate;
- ii) Secondary Fuel Oil Consumption; and
- iii) Auxiliary Energy Consumption.

(2) The financial gains by the generating company or the transmission licensee, as the case may be, on account of controllable parameters shall be shared between generating company or transmission licensee and the beneficiaries or long term customers, as the case may be on annual basis. The financial gains computed as per the following formulae in case of generating station other than hydro generating stations on account of operational parameters as shown in Clause (1) of this Regulation shall be shared in the ratio of 50:50 between the generating stations and beneficiaries.

$$\text{Net Gain} = (\text{ECR}_N - \text{ECR}_A) \times \text{Scheduled Generation}$$

Where,

ECR_N = Normative Energy Charge Rate computed on the basis of norms specified for Station Heat Rate, Auxiliary Energy Consumption and Secondary Fuel Oil consumption.

ECR_A = Actual Energy Charge Rate computed on the basis of actual Station Heat Rate, Auxiliary Energy Consumption and Secondary Fuel Oil

Consumption for the month.

Provided that in case of hydro generating stations, the net gain on account of Actual Auxiliary Energy Consumption being less than the Normative Auxiliary Energy Consumption, shall be computed as per following formulae provided the saleable scheduled generation is more than the saleable design energy and shall be shared in the ratio of 50:50 between generating station and beneficiaries.:

- (i) When saleable scheduled generation is more than saleable design energy on the basis of normative auxiliary energy consumption and less than or equal to saleable design energy on the basis of actual auxiliary energy consumption:

$$\text{Net gain (Million Rupees)} = [(\text{Saleable Scheduled generation in MUs}) - (\text{Saleable Design energy on the basis of normative auxiliary energy consumption in MUs})] \times [1.20 \text{ or ECR, whichever is lower}]$$

- (ii) When saleable scheduled generation is more than saleable design energy on the basis of actual auxiliary energy consumption:

$$\text{Net gain (Million Rupees)} = \{ \text{Saleable Scheduled generation in MUs} - [(\text{Saleable Scheduled Generation in MUs} \times (100 - \text{normative AEC in \%}) / (100 - \text{actual AEC in \%}))] \} \times [1.20 \text{ or ECR, whichever is lower}]$$

61. Sharing of saving in interest due to re-financing or restructuring of loan :(1) If re-financing or restructuring of loan by the generating company or the transmission licensee, as the case may be, results in net savings on interest after accounting for cost

associated with such refinancing or restructuring, the same shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 50:50.

(2) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for settlement of the dispute:

Provided that the beneficiaries or the long term customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.

62. Sharing of Non-Tariff Income: The non-tariff net income in case of generating station and transmission system from rent of land or buildings, sale of scrap and advertisements shall be shared between the beneficiaries or the long term customers and the generating company or the transmission licensee, as the case may be, in the ratio 50:50.

63. Sharing of Clean Development Mechanism Benefits: The proceeds of carbon credit from approved emission reduction projects under Clean Development Mechanism shall be shared in the following manner:-

- (a) 100% of the gross proceeds on account of CDM to be retained by the project developer in the first year after the date of commercial operation of the generating station or the transmission system, as the case may be;
- (b) In the second year, the share of the beneficiaries shall be 10% which shall be

progressively increased by 10% every year till it reaches 50%, where after the proceeds shall be shared in equal proportion, by the generating company or the transmission licensee, as the case may be, and the beneficiaries.

64. Sharing of income from other business of transmission licensee: The income from other business of transmission licensee shall be shared with the long term customer in the manner as specified in the Central Electricity Regulatory Commission (Sharing of revenue derived from utilization of transmission assets for other business) Regulations, 2007.

CHAPTER 15

MISCELLANEOUS PROVISIONS

65. Operational Norms to be ceiling norms: Operational norms specified in these regulations are the ceiling norms and shall not preclude the generating company or the transmission licensee, as the case may be, and the beneficiaries and the long-term customers from agreeing to the improved norms and in case the improved norms are agreed to, such improved norms shall be applicable for determination of tariff.

66. Deviation from ceiling tariff:(1) The tariff determined in these regulations shall be a ceiling tariff. The generating company or the transmission licensee and the beneficiaries or the long-term customer, as the case may be, may mutually agree to charge a lower tariff.

(2) The generating company or the transmission licensee, may opt to charge a lower tariff for a period not exceeding the validity of these regulations on agreeing to deviation from operational parameters, reduction in operation and maintenance expenses, reduced return on equity and incentive specified in these regulations.

(3) If the generating company or the transmission licensee opts to charge a lower tariff for a period not exceeding the validity of these regulations on account of lower depreciation based on the requirement of repayment in such case the unrecovered depreciation on account of reduction of depreciation by the generating company or the transmission licensee during useful life shall be allowed to be recovered after the useful life in these regulations.

(4) The deviation from the ceiling tariff specified by the Commission, shall come into effect from the date agreed to by the generating company or the transmission licensee and the beneficiaries or the long-term customer, as the case may be.

(5) The generating company and the beneficiaries of a generating station or the transmission licensee and the long term customer of transmission system shall be required to approach the Commission for charging lower tariff in accordance with clauses (1) to (3) above. The details of the accounts and the tariff actually charged under clauses (1) to (3) shall be submitted at the time of true up.

[(6) Where a generating company and its beneficiaries or a transmission licensee and its long-term customers have mutually agreed to charge lower tariff in respect of a particular generating station or transmission system in terms of Clauses (1) to (3) of this Regulation, the said agreed tariff shall not be revised upwards at the time of truing up based on the capital cost and additional capital expenditures in accordance with these regulations:

Provided that where the trued up tariff is lower than the agreed tariff, the generating company or the transmission licensee shall charge such trued-up tariff only:

Provided further that the difference between the agreed tariff and the trued-up tariff shall be settled between the parties in accordance with Clause (4) of Regulation 13 of these regulations.]⁸²

67. Deferred Tax liability with respect to previous tariff period: Deferred tax liabilities for the period upto 31st March, 2009 whenever they materialise shall be

⁸² Added *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

recoverable directly by the generating companies or transmission licensees from the then beneficiaries or long term customers, as the case may be. Deferred tax liabilities for the period arising from 1.4.2009 to 31.3.2014 if any, shall not be recoverable from the beneficiaries or the long term customers, as the case may be.

68. Hedging of Foreign Exchange Rate Variation:(1) The generating company or the transmission licensee, as the case may be, may hedge foreign exchange exposure in respect of the interest and repayment of foreign currency loan taken for the generating station or the transmission system, in part or in full at their discretion.

(2) If the petitioner enters into hedging arrangement(s) based on its approved hedging policy, the petitioner shall communicate to the beneficiaries concerned, of entering into such arrangement(s) within thirty days.

(3) Every generating company and transmission licensee shall recover the cost of hedging of foreign exchange rate variation corresponding to the normative foreign debt, in the relevant year on year-to-year basis as expense in the period in which it arises and extra rupee liability corresponding to such foreign exchange rate variation shall not be allowed against the hedged foreign debt.

(4) To the extent the generating company or the transmission licensee is not able to hedge the foreign exchange exposure, the extra rupee liability towards interest payment and loan repayment corresponding to the normative foreign currency loan in the relevant year shall be permissible, provided it is not attributable to the generating company or the transmission licensee or its suppliers or contractors.

69. Recovery of cost of hedging or Foreign Exchange Rate Variation (FERV):

(1) Every generating company and the transmission licensee shall recover the cost of hedging and foreign exchange rate variation on year-to-year basis as income or expense in the period in which it arises.

(2) Recovery of cost of hedging or foreign exchange rate variation shall be made directly by the generating company or the transmission licensee, as the case may be, from the beneficiaries or the long term customers, as the case may be, without making any application before the Commission:

Provided that in case of any objections by the beneficiaries or the long term customers, as the case may be, to the amounts claimed on account of cost of hedging or foreign exchange rate variation, the generating company or the transmission licensee, as the case may be, may make an appropriate application before the Commission for its decision.

70. Application fee and the publication expenses: The following fees, charges and expenses shall be reimbursed directly by the beneficiary in the manner specified herein:

(1) The application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, may in the discretion of the Commission, be allowed to be recovered by the generating company or the transmission licensee, as the case may be, directly from the beneficiaries or the long term customers, as the case may be.

(2) The following fees and charges shall be reimbursed directly by the beneficiaries in proportion of their allocation in the generating stations or by the long term

customers in proportion to their share in the inter-State transmission systems determined in accordance with the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time.

- (3) Fees and charges paid by the generating companies and inter-State transmission licensees (including deemed inter-State transmission licensee) under the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2009, as amended from time to time or any subsequent amendment thereof.
- (4) Licence fees paid by the inter-State transmission licensees (including the deemed inter-State transmission licensee) in terms of Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012.
- (5) Licence fees paid by NHPC Ltd to the State Water Resources Development Authority, Jammu in accordance with the provisions of Jammu & Kashmir Water Resources (Regulations and Management) Act, 2010.
- (6) The Commission may, for the reasons to be recorded in writing and after hearing the affected parties, allow reimbursement of any fee or expenses, as may be considered necessary.

71. Special Provisions relating to NLC India Limited: The tariff of the existing generating stations of NLC India Ltd, namely, TPS-I and TPS-II (Stage I & II) and TPS-I (Expansion), whose tariff for the tariff periods 2004-09, 2009-14 and 2014-19 has been

determined by following the Net Fixed Assets approach, shall continue to be determined by adopting Net Fixed Assets approach.

72. Special Provisions relating to Damodar Valley Corporation: (1) Subject to clause (2), this Regulation shall apply to determination of tariff of the projects owned by Damodar Valley Corporation (DVC).

(2) The following special provisions shall apply for determination of tariff of the projects owned by DVC:

(i) **Capital Cost:** The expenditure allocated to the object 'power', in terms of sections 32 and 33 of the Damodar Valley Corporation Act, 1948, to the extent of its apportionment to generation and inter-state transmission, shall form the basis of capital cost for the purpose of determination of tariff:

Provided that the capital expenditure incurred on head office, regional offices, administrative and technical centers of DVC, after due prudence check, shall also form part of the capital cost.

(ii) **Debt Equity Ratio:** The debt equity ratio of all projects of DVC commissioned prior to 01.01.1992 shall be 50:50 and that of the projects commissioned thereafter shall be 70:30.

(iii) **Depreciation:** The depreciation rate stipulated by the Comptroller and Auditor General of India in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be applied for computation of depreciation of projects of DVC.

(iv) Funds under section 40 of the Damodar Valley Corporation Act, 1948

The Fund(s) established in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be considered as items of expenditure to be recovered through tariff.

73. Special Provisions relating to BBMB and SSP: The tariff of generating station and the transmission system of Bhakra Beas Management Board (BBMB) and Sardar Sarovar Project (SSP) shall be determined after taking into consideration, the provisions of the Punjab Reorganization Act, 1996 and Narmada Water Scheme, 1980 under Section 6-A of the Inter-State Water Disputes Act, 1956, respectively.

74. Special Provisions Relating to Certain Inter-State Generation Projects: The tariff of generating station and the transmission system of Indira Sagar generation project and such other inter-state generation projects shall be determined on case to case basis.

75. Transmission Majoration Factor: Transmission Majoration Factor admissible for the transmission projects executed through JV route in terms of Regulation 410A of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2001 shall be available for a period of 25 years from the date of issue of the transmission licence.

76. Power to Relax: The Commission, for reasons to be recorded in writing, may relax any of the provisions of these regulations on its own motion or on an application

made before it by an interested person.

77. Power to Remove Difficulty: If any difficulty arises in giving effect to the provisions of these regulations, the Commission may, by order, make such provision not inconsistent with the provisions of the Act or provisions of other regulations specified by the Commission, as may appear to be necessary for removing the difficulty in giving effect to the objectives of these regulations.

(SANOJ KUMAR JHA)
Secy
[ADVT-III/4/Exty./29/19]

Appendix I
Depreciation Schedule

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

Sr. No.	Asset Particulars	Depreciation Rate (Salvage Value=10%) SLM
h.	Batteries	5.28%
(i)	Underground cable including joint boxes and disconnected boxes	5.28%
(ii)	Cable duct system	5.28%
i.	Overhead lines including cable support	
(i)	Lines on fabricated steel operating at terminal voltages higher than 66 KV	5.28%
(ii)	Lines on steel supports operating at terminal voltages higher than 13.2 KV but not exceeding 66 KV	5.28%
(iii)	Lines on steel on reinforced concrete support	5.28%
(iv)	Lines on treated wood support	5.28%
j.	Meters	5.28%
k.	Self propelled vehicles	9.50%
l.	Air Conditioning Plants	
(i)	Static	5.28%
(ii)	Portable	9.50%
m.(i)	Office furniture and furnishing	6.33%
(ii)	Office equipment	6.33%
(iii)	Internal wiring including fittings and apparatus	6.33%
(iv)	Street Light fittings	5.28%
n.	Apparatus let on hire	
(i)	Other than motors	9.50%
(ii)	Motors	6.33%
o.	Communication equipment	
(i)	Radio and high frequency carrier system	6.33%
(ii)	Telephone lines and telephones	6.33%
(iii)	Fibre Optic	6.33%
p.	I. T Equipment including software	15.00%
q.	Any other assets not covered above	5.28%

Note: Where life of the particular asset is less than useful life of the project, the useful life of such particular asset shall be considered as per the provisions of the Companies Act, 2013 and subsequent amendment thereto.

**[Appendix IA
(Depreciation Schedule for Integrated Mine)]**

DEPRECIATION SCHEDULE FOR INTEGRATED MINE		
Sr No	Asset Particulars	Life in Years
1	Land Freehold@	999
2	Land Leasehold	&&&
3	Temporary erections	1
4	HEMM [#]	8
5	Roads, bridges, culverts, helipads	25
6	Main Plant Buildings	30
7	Machinery other than HEMM	15
8	Water Supply, Drainage and sewerage	15
9	Furniture and Fixtures	15
10	Office equipment/s other than computers	15
11	Hospital equipment(s)	15
12	EDP, WP machines, SATCOM & communication equipment	15
13	Electrical installations	15
14	Self propelled vehicles	10
15	Computers, Software	3
16	Laboratory & workshop equipment	15
17	Mine Development Expenses and Evaluation and exploration #	20 or life of mine, whichever is lower
18	Evaluation and Exploration [#]	20 or life of mine, whichever is lower
19	Others not covered above	15

*	Salvage Value shall be other than 5% for following assets - a. IT Equipment, software Zero(0) b. Zero or as agreed with state Government in case of land c. For specialized mining equipment as specified by Ministry of Corporate affairs d. Mine Development expenses, Evaluation and Exploration Zero (0)
@	Petitioner to submit if the Freehold Land is attached with any conditions for return. If yes to submit the conditions and period after which the land is to be returned. In such case the land shall be depreciable based on such details.
&&&	To be filled by petitioner, least of lease agreement/mine life/right to use

	period
\$	List of individual HEMM with cost of each HEMM be provided separately
#	In generic sense Mine Development Expenditure is the expenditure incurred to bring the mine in usable condition after ensuring the economic viability and decision is taken by Mine Owner to develop the mine. While filling under this head details to the extent feasible are to be given separately. Evaluation and exploration expenditure is generally the expenditure incurred associated with finding the mineral by carrying out topographical, geological, geochemical and geophysical studies, exploratory drilling, trenching, sampling, expenditure for activities in relation to evaluation of technical feasibility and commercial viability, acquisition of rights to explore etc. While filling under this head details to the extent feasible are to be given separately.] ⁸³

⁸³ Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019

Appendix-II

Procedure for Calculation of Transmission System

Availability Factor for a Month

1. Transmission system availability factor for n^{th} calendar month ("TAFP n ") shall be calculated by the respective transmission licensee, got verified by the concerned Regional Load Dispatch Centre (RLDC) and certified by the Member-Secretary, Regional Power Committee of the region concerned, separately for each AC and HVDC transmission system and grouped according to sharing of transmission charges. In case of AC system, transmission System Availability shall be calculated separately for each Regional Transmission System and inter-regional transmission system. In case of HVDC system, transmission System Availability shall be calculated on consolidate basis for all inter-state HVDC system.
2. Transmission system availability factor for n^{th} calendar month ("TAFP n ") shall be calculated by consider following:
 - i) **AC transmission lines:** Each circuit of AC transmission line shall be considered as one element;
 - ii) **Inter-Connecting Transformers (ICTs):** Each ICT bank (three single phase transformer together) shall form one element;
 - iii) **Static VAR Compensator (SVC):** SVC along with SVC transformer shall form one element;
 - iv) **Bus Reactors or Switchable line reactors:** Each Bus Reactors or Switchable line reactors shall be considered as one element;
 - v) **HVDC Bi-pole links:** Each pole of HVDC link along with associated equipment at both ends shall be considered as one element;
 - vi) **HVDC back-to-back station:** Each block of HVDC back-to-back station shall be considered as one element. If associated AC line (necessary for

transfer of inter- regional power through HVDC back to-back station) is not available, the HVDC back-to-back station block shall also be considered as unavailable;

- vii) **Static Synchronous Compensation ("STATCOM"):** Each STATCOM shall be considered as separate element.

3. The Availability of AC and HVDC portion of Transmission system shall be calculated by considering each category of transmission elements as under:

TAFMn (in %) for AC system:

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

Where,

o	=	Total number of AC lines.
AV _o	=	Availability of o number of AC lines.
p	=	Total number of bus reactors/switchable line reactors
AV _p	=	Availability of p number of bus reactors/switchable line reactors
q	=	Total number of ICTs.
AV _q	=	Availability of q number of ICTs.
r	=	Total number of SVCs.
AV _r	=	Availability of r number of SVCs
u	=	Total number of STATCOM.
AV _u	=	Availability of u number of STATCOMs

TAFMn (in %) for HVDC System:

$$= \frac{\sum_{x=1}^s C_{xpb}(\text{act}) \times AV_{xpb} + \sum_{y=1}^t C_y(\text{act}) b_{tb} \times AV_{ybtb}}{\sum_{x=1}^s C_{xpb} + \sum_{y=1}^t C_y b_{tb}} \times 100$$

Where

C _{xpb} (act)	=	Total actual operated capacity of x th HVDC pole
C _{xpb}	=	Total rated capacity of x th HVDC pole

AV _x bp	=	Availability of x th HVDC pole
Cy _b tb(act)	=	Total actual operated capacity of y th HVDC back-to-back station block
Cy _b tb	=	Total rated capacity of y th HVDC back-to-back station block
AV _y btb	=	Availability of y th HVDC back-to-back station block
s	=	Total no of HVDC poles
t	=	Total no of HVDC Back to Back blocks

3. The availability for each category of transmission elements shall be calculated based on the weightage factor, total hours under consideration and non-available hours for each element of that category. The formulae for calculation of Availability of each category of the transmission elements are as per **Appendix-III**. The weightage factor for each category of transmission elements shall be considered as under:

- (a) For each circuit of AC-line Number of sub conductors in the line multiplied by ckt-km;
- (b) For each HVDC pole- The rated MW capacity x ckt-km;
- (c) For each ICT bank – The rated MVA capacity;
- (d) For SVC- The rated MVAR capacity (inductive and capacitive);
- (e) For Bus Reactor/switchable line reactors – The rated MVAR capacity;
- (f) For HVDC back-to-back station connecting two Regional grids- Rated MW capacity of each block; and
- (g) For STATCOM – Total rated MVAR Capacity.

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

- i. Shut down availed for maintenance of another transmission scheme or construction of new element or renovation/upgradation/additional capitalization in existing system approved by the Commission. If the other transmission scheme belongs to the transmission licensee, the Member-

Secretary, RPC may restrict the deemed availability period to that considered reasonable by him for the work involved. In case of dispute regarding deemed availability, the matter may be referred to Chairperson, CEA within 30 days.

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

5. For the following contingencies, outage period of transmission elements, as certified by the Member Secretary, RPC, shall be excluded from the total time of the element under period of consideration for the following contingencies:

- i) Outage of elements due to acts of God and force majeure events beyond the control of the transmission licensee. However, whether the same outage is due to force majeure (not design failure) will be verified by the Member Secretary, RPC. A reasonable restoration time for the element shall be considered by Member Secretary, RPC and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Member Secretary, RPC may consult the transmission licensee or any expert for estimation of reasonable restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available;
- ii) Outage caused by grid incident/disturbance not attributable to the transmission licensee, e.g. faults in substation or bays owned by other agency causing outage of the transmission licensee's elements, and tripping of lines, ICTs, HVDC, etc. due to grid disturbance. However, if the element is not restored on receipt of direction from RLDC while normalizing the system following grid incident/disturbance within reasonable time, the element will be considered not available for the period of outage after issuance of RLDC's direction for restoration;

Provided that in case of any disagreement with the transmission licensee regarding reason for outage, same may be referred to Chairperson, CEA within

30 days. The above need to be resolved within two months:

Provided further that where there is a difficulty or delay beyond sixty days, from the incidence in finalizing the recommendation, the Member Secretary of concerned RPC shall allow the outage hours on provisional basis till the final view.

6. Time frame for certification of transmission system availability: (1) Following schedule shall be followed for certification of availability by Member Secretary of concerned RPC:

- Submission of outage data by Transmission Licensees to RLDC/ constituents – By 5th of the following month;
- Review of the outage data by RLDC / constituents and forward the same to respective RPC – by 20th of the month;
- Issue of availability certificate by respective RPC – by 3rd of the next month.

Appendix-III

FORMULAE FOR CALCULATION OF AVAILABILITY OF EACH CATEGORY OF TRANSMISSION ELEMENTS

For AC transmission system

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

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

$$AV_r(\text{Availability of } r \text{ no. of SVCs}) = \frac{\sum_{l=1}^r W_l(T_l - T_{NAL})/T_l}{\sum_{l=1}^r W_l}$$

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

$$AV_u(\text{Availability of } u \text{ no. of STATCOMs}) = \frac{\sum_{n=1}^u W_n(T_n - T_{NA n})/T_n}{\sum_{n=1}^u W_n}$$

$$AV_{x_{bp}}(\text{Availability of an individual HVDC pole}) = \frac{(T_x - T_{NAx})}{T_x}$$

$$AV_{y_{btb}}(\text{Availability of an individual HVDC Back-to-back Blocks}) = \frac{(T_y - T_{NAy})}{T_y}$$

For HVDC transmission system

For the new HVDC commissioned but not completed twelve months;

For first 12 months: $[(AV_{x_{bp}} \text{ or } AV_{y_{btb}}) \times 95\% / 85\%]$, subject to ceiling of 95%.

Where,

o	=	Total number of AC lines;
AV _o	=	Availability of o number of AC lines;
p	=	Total number of bus reactors/switchable line reactors;
AV _p	=	Availability of p number of bus reactors/switchable line reactors;
q	=	Total number of ICTs;
AV _q	=	Availability of q number of ICTs;
r	=	Total number of SVCs;
AV _r	=	Availability of r number of SVCs;
U	=	Total number of STATCOM;

AV_u	=	Availability of u number of STATCOMs;
W_i	=	Weightage factor for i^{th} transmission line;
W_k	=	Weightage factor for k^{th} ICT;
W_l	=	Weightage factors for inductive & capacitive operation of l^{th} SVC;
W_m	=	Weightage factor for m^{th} bus reactor;
W_n	=	Weightage factor for n^{th} STATCOM.
$T_i, T_k, T_l, T_m, T_n, T_x, T_y$		The total hours of i^{th} AC line, k^{th} ICT, l^{th} SVC, m^{th} Switched Bus Reactor & n^{th} STATCOM, x^{th} HVDC pole, y^{th} HVDC back-to-back blocks during the period under consideration (excluding time period for outages not attributable to transmission licensee for reasons given in Para 5 of the procedure)
T_{NAi}, T_{NAk}		The non-availability hours (excluding the time period for outages not attributable to transmission licensee taken as deemed availability as $T_{NAi}, T_{NAk}, T_{NAl}, T_{NAk}, T_{NAx}, T_{NAY}$ per Para 5 of the procedure) for i^{th} AC line, k^{th} ICT, l^{th} SVC, m^{th} Switched Bus Reactor, n^{th} STATCOM, x^{th} HVDC pole and y^{th} HVDC back-to-back block .

**TARIFF FILING FORMS (THERMAL)
FOR DETERMINATION OF TARIFF**

Main Tariff Form

PART-I

Annexure-I

**Checklist of Main Tariff Forms and other information for tariff filing for
Thermal Stations**

Form No.	Title of Tariff Filing Forms (Thermal)	Tick
FORM- 1	Summary of Tariff	
FORM -1 (I)	Statement showing claimed capital cost	
FORM -1 (II)	Statement showing Return on Equity	
FORM-2	Plant Characteristics	
FORM-3	Normative parameters considered for tariff computations	
FORM- 4	Details of Foreign loans	
FORM- 4A	Details of Foreign Equity	
FORM-5	Abstract of Admitted Capital Cost for the existing Projects	
FORM- 6	Financial Package upto COD	
FORM- 7	Details of Project Specific Loans	
FORM- 8	Details of Allocation of corporate loans to various projects	
FORM-9	Statement of Additional Capitalisation after COD	
FORM- 10	Financing of Additional Capitalisation	
FORM- 11	Calculation of Depreciation on original project cost	
FORM- 12	Statement of Depreciation	
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	
FORM- 14	Draw Down Schedule for Calculation of IDC & Financing Charges	
FORM- 15	Details of Fuel for Computation of Energy Charges ¹	
FORM- 16	Details of Limestone for Computation of Energy Charge Rate	
FORM-17	Details of Capital Spares	
FORM- 18	Non-Tariff Income	
FORM-19	Details of Water Charges	
FORM-20	Details of Statutory Charges	

PART-I
List of Supporting Forms / documents for tariff filing for
Thermal Stations

Form No.	Title of Tariff Filing Forms (Thermal)	Tick
FORM-A	Abstract of Capital Cost Estimates	
FORM-B	Break-up of Capital Cost for Coal/Lignite based projects	
FORM-C	Break-up of Capital Cost for Gas/Liquid fuel based Projects	
FORM-D	Break-up of Construction/Supply/Service packages	
FORM-E	Details of variables , parameters , optional package etc. for New Project	
FORM-F	Details of cost over run	
FORM-G	Details of time over run	
FORM -H	Statement of Additional Capitalisation during end of the useful life	
FORM -I	Details of Assets De-capitalised during the period	
FORM -J	Reconciliation of Capitalisation claimed vis-à-vis books of accounts	
FORM -K	Statement showing details of items/assets/works claimed under Exclusions	
FORM-L	Statement of Capital cost	
FORM-M	Statement of Capital Woks in Progress	
FORM-N	Calculation of Interest on Normative Loan	
FORM-O	Calculation of Interest on Working Capital	
FORM-P	Incidental Expenditure up to SCOD and up to Actual COD	
FORM-Q	Expenditure under different packages up to SCOD and up to Actual COD	
FORM-R	Actual cash expenditure	
FORM-S	Statement of Liability flow	
FORM-T	Summary of issues involved in the petition	

List of supporting documents for tariff filing for Thermal Stations

S. No.	Information / Document	Tick
1	Certificate of incorporation, Certificate for Commencement 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	A. Station wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on COD of the Station for the new station & for the relevant years. B. Station wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the existing station for 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 cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	
8	Generating Company shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the Generating Unit wise /stage wise/Station wise/ and subsequently consolidated at Company level as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
9	Any other relevant information, (Please specify)	
10.	Reconciliation with Balance sheet of any actual additional capitalization and amongst stages of a generating station	
11.	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify the formats suitably as per available information to them for submission of required information for tariff purpose.	

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.

PART-I
FORM- 1

Summary of Tariff

Name of the Petitioner _____

Name of the Generating Station: _____

Place (Region/District/State): _____

S.No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8	9
1.1	Depreciation	Rs Lakh						
1.2	Interest on Loan	Rs Lakh						
1.3	Return on Equity ¹	Rs Lakh						
1.4	Interest on Working Capital	Rs Lakh						
1.5	O&M Expenses	Rs Lakh						
1.6	Special Allowance (If applicable)	Rs Lakh						
1.7	Compensation Allowance (If applicable – relevant for column 4 only)	Rs. Lakh						
	Total	Rs Lakh						
2.1	Landed Fuel Cost (coal/gas/RLNG/liquid) as per FSA approved by beneficiaries	Rs/Ton						
	(%) of Fuel Quantity	(%)						
2.2	Landed Fuel Cost Imported Coal as per FSA approved by beneficiaries							
	(%) of Fuel Quantity							
2.3	Landed Fuel Cost (coal/gas/RLNG/liquid) other than FSA	Rs/Ton						
	(%) of Fuel Quantity	(%)						
2.4	Landed Fuel Cost Imported Coal other than FSA.							

S.No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8	9
	(%) of Fuel Quantity							
2.5	Secondary fuel oil cost	Rs/Unit						
	Energy Charge Rate ex-bus(Paise/kWh) ^{2A, 2B, 2C, 2D}	Rs/Unit						

(Petitioner)

Note:

1. Details of calculations, considering equity as per regulation, to be furnished.
- 2A. If multifuel is used simultaneously, give 2 in respect of every fuel individually.
- 2B. The rate of energy charge shall be computed for open cycle operation and combined cycle operation separately in case of gas/liquid fuel fired plants.
- 2C. The total energy charge shall be worked out based on ex-bus energy scheduled to be sent out.
- 2D. The Energy Charge rate for the month shall be based on fuel cost(s) and GCV(s) for the month as per Regulation 43.
- 2E. In case breakup is not available for 2.1 to 2.5, consolidated statement needs to be submitted.

PART-I
FORM-1(I)

Name of the Petitioner _____

Name of the Generating Station: _____

Statement showing claimed capital cost – (A+B)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Opening Capital Cost					
2	Add: Addition during the year/ period					
3	Less: De-capitalisation during the year/period					
4	Less: Reversal during the year / period					
5	Add: Discharges during the year/ period					
6	Closing Capital Cost					
7	Average Capital Cost					

Statement showing claimed capital cost eligible for RoE at normal rate (A)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Opening Capital Cost					
2	Add: Addition during the year / period					
3	Less: De-capitalisation during the year / period					
4	Less: Reversal during the year / period					
5	Add: Discharges during the year / period					
6	Closing Capital Cost					
7	Average Capital Cost					

Statement showing claimed capital cost eligible for RoE
at weighted average rate of interest on actual loan portfolio (B)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Opening Capital Cost					
2	Add: Addition during the year / period					
3	Less: De-capitalisation during the year / period					
4	Less: Reversal during the year / period					
5	Add: Discharges during the year / period					
6	Closing Capital Cost					
7	Average Capital Cost					

(Petitioner)

**PART 1
FORM-1(IIA)**

Name of the Petitioner _____
 Name of the Generating Station: _____

Statement showing Return on Equity at Normal Rate:

Sr	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
	Return on Equity					
1	Gross Opening Equity (Normal)					
2	Less: Adjustment in Opening Equity					
3	Adjustment during the year					
4	Net Opening Equity (Normal)					
5	Add: Increase in equity due to addition during the year / period					
7	Less: Decrease due to De-capitalisation during the year / period					
8	Less: Decrease due to reversal during the year / period					
9	Add: Increase due to discharges during the year / period					
10	Net closing Equity (Normal)					
11	Average Equity (Normal)					
12	Rate of ROE					
12	Total ROE					

(Petitioner)

PART 1
FORM-1(IIB)

Name of the Petitioner _____
Name of the Generating Station: _____

Statement showing Return on Equity at Normal Rate:

Sr	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
	Return on Equity (beyond the original scope of work excluding additional capitalization due to Change in Law)					
1	Gross Opening Equity (Normal)					
2	Less: Adjustment in Opening Equity					
3	Adjustment during the year					
4	Net Opening Equity (Normal)					
5	Add: Increase in equity due to addition during the year / period					
7	Less: Decrease due to De-capitalisation during the year / period					
8	Less: Decrease due to reversal during the year / period					
9	Add: Increase due to discharges during the year / period					
10	Net closing Equity (Normal)					
11	Average Equity (Normal)					
12	Rate of ROE					
12	Total ROE					

(Petitioner)

PART 1
FORM-2

Plant Characteristics

Name of the Petitioner

Name of the Generating Station

Unit(s)/Block(s)/Parameters	Unit-I	Unit-II	Unit-III		
Installed Capacity (MW)						
Schedule COD as per Investment Approval						
Actual COD /Date of Taken Over (as applicable)						
Pit Head or Non Pit Head						
Name of the Boiler Manufacture						
Name of Turbine Generator Manufacture						
Main Steams Pressure at Turbine inlet (kg/Cm ²) abs ¹ .						
Main Steam Temperature at Turbine inlet (°C) ¹						
Reheat Steam Pressure at Turbine inlet (kg/Cm ²) ¹						
Reheat Steam Temperature at Turbine inlet (°C) ¹						
Main Steam flow at Turbine inlet under MCR condition (tons /hr) ²						
Main Steam flow at Turbine inlet under VWO condition (tons /hr) ²						
Unit Gross electrical output under MCR /Rated condition (MW) ²						
Unit Gross electrical output under VWO condition (MW) ²						
Guaranteed Design Gross Turbine Cycle Heat Rate (kCal/kWh) ³						
Conditions on which design turbine cycle heat rate guaranteed						
% MCR						
% Makeup Water Consumption						
Design Capacity of Make up Water System						
Design Capacity of Inlet Cooling System						
Design Cooling Water Temperature (°C)						
Back Pressure						
Steam flow at super heater outlet under BMCR condition (tons/hr)						
Steam Pressure at super heater outlet under BMCR condition) (kg/Cm ²)						
Steam Temperature at super heater outlet under BMCR condition (°C)						
Steam Temperature at Reheater outlet at BMCR condition (°C)						

Unit(s)/Block(s)/Parameters	Unit-I	Unit-II	Unit-III		
Design / Guaranteed Boiler Efficiency (%) ⁴						
Design Fuel with and without Blending of domestic/imported coal						
Type of Cooling Tower						
Type of cooling system⁵						
Type of Boiler Feed Pump⁶						
Type of Coal Mill						
Fuel Details⁷						
-Primary Fuel						
-Secondary Fuel						
-Alternate Fuels						
Types of SOX control system						
Types of NOX control system						
Details of SPM control system						
Special Features/Site Specific Features⁸						
Special Technological Features⁹						
Environmental Regulation related features¹⁰						
Any other special features						
1. At Turbine MCR condition.						
2. With 0% (Nil) make up and design Cooling water temperature						
3. At TMCR output based on gross generation, 0% (Nil) makeup and design Cooling water temperature.						
4. With Performance coal based on Higher Heating Value (HHV) of fuel and at BMCR) out put						
5. Closed circuit cooling, once through cooling, sea cooling, natural draft cooling, induced draft cooling etc.						
6. Motor driven, Steam turbine driven etc.						
7. Coal or natural gas or Naptha or lignite etc.						
8. Any site specific feature such as Merry-Go-Round, Vicinity to sea, Intake /makeup water systems etc. scrubbers etc. Specify all such features						
9. Any Special Technological feature like Advanced class FA technology in Gas Turbines, etc.						
10. Environmental Regulation related features like FGD, ESP etc.,						
Note 1: In case of deviation from specified conditions in Regulation, correction curve of manufacturer may also be submitted.						
Note 2: Heat Balance Diagram has to be submitted along with above information in case of new stations.						
Note 3: The Terms – MCR, BMCR, HHV, Performance coal, are as defined in CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations – 2010 notified by the Central Electricity Authority.						

Normative parameters considered for tariff computations

Name of the Petitioner

Name of the Generating Station

(Year Ending March)

Particulars				Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1				2	3	4	5	6	7	8
Base Rate of Return on Equity				%						
Base Rate of Return on Equity on Add. Capitalization				%						
Effective Tax Rate ⁴				%						
Target Availability				%						
In High Demand Season %										
Peak Hours				%						
Off-Peak Hours				%						
In Low Demand Season(Off-Peak) %										
Peak Hours				%						
Off-Peak Hours				%						
Auxiliary Energy Consumption				%						
Gross Station Heat Rate				kCal/kWh						
Specific Fuel Oil Consumption				ml/kWh						

Particulars 1	Unit 2	Existing 2018-19 3	2019-20 4	2020-21 5	2021-22 6	2022-23 7	2023-24 8
Cost of Coal/Lignite for WC ¹	in Months						
Cost of Main Secondary Fuel Oil for WC ¹	in Months						
Fuel Cost for WC ²	in Months						
Liquid Fuel Stock for WC ²	in Months						
O&M Expenses	Rs lakh / MW						
Maintenance Spares for WC	% of O&M						
Receivables for WC	in Months						
Storage capacity of Primary fuel	MT						
SBI 1 Year MCLR plus 350 basis point ³	%						
Blending ratio of domestic coal/imported coal							

Note:1). For Coal based/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.

3. Mention relevant date. Effective tax rate is to be computed in accordance with Regulation 31 i.e. actual tax (or advance tax)/gross income, where gross income refers the profit before tax. .

(Petitioner)

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

Name of the Generating Station

Exchange Rate as on 31.3.2019

[illegible]

S. No.	Financial Year (Starting from COD)	Year 1				Year 2				Year 3 and so on			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)
3	Cost of hedging												
	Currency³ & so on												
A.1	At the date of Drawl ²												
2	Scheduled repayment date of principal												
3	Scheduled payment date of interest												
4	At the end of Financial year												
B	In case of Hedging ³												
1	At the date of hedging												
2	Period of hedging												
3	Cost of hedging												

1. Name of the currency to be mentioned e.g. US\$, DM, etc.
2. In case of more than one drawl during the year, Exchange rate at the date of each drawl to be given.
3. Furnish details of hedging, in case of more than one hedging during the year or part hedging, details of each hedging are to be given
4. Tax (such as withholding tax) details as applicable including change in rates, date from which change effective etc. must be clearly indicated.

(Petitioner)

Details of Foreign Equity

(Details only in respect of Equity infusion if any applicable to the project under petition)

Name of the Petitioner

Name of the Generating Station

Exchange Rate on date/s of infusion

S. No	Financial Year	Year 1				Year 2				Year 3 and so on			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)
	Currency ¹												
A.1	At the date of infusion ²												
2													
3													
	Currency ²												
A.1	At the date of infusion ²												
2													
3													
	Currency ³												
A.1	At the date of infusion ²												
2													
3													
	Currency ¹ and so on												
A.1	At the date of infusion ²												
2													
3													

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

2. In case of equity infusion more than once during the year, Exchange rate at the date of each infusion to be given.

(Petitioner)

Abstract of Admitted Capital Cost for the existing Projects

Name of the Petitioner _____
Name of the Generating Station _____

Last date of order of Commission for the project	Date (DD-MM-YYYY)	
Reference of petition no. in which the above order was passed	Petition no.	
Following details (whether admitted and /or considered) as on the last date of the period for which tariff is approved, in the above order by the Commission:		
Capital cost	(Rs. in lakh)*	
Amount of un-discharged liabilities included in above (& forming part of admitted capital cost)		
Amount of un-discharged liabilities corresponding to above admitted capital cost (but not forming part of admitted capital cost being allowed on cash basis)		
Gross Normative Debt		
Cumulative Repayment		
Net Normative Debt		
Normative Equity		
Cumulative Depreciation		
Freehold land		

(Petitioner)

Financial Package upto COD

Name of the Petitioner _____
 Name of the Generating Station _____
 Project Cost as on COD¹ _____
 Date of Commercial Operation of the Station² _____

	Financial Package as Approved		Financial Package as on COD		As Admitted on COD	
	Currency and Amount ³		Currency and Amount ³		Currency and Amount ³	
1	2	3	4	5	6	7
Loan-I	US \$	200m				
Loan-II						
Loan-III						
and so on						
Equity-						
Foreign						
Domestic						
Total Equity						
Debt : Equity Ratio						

Note:

1. Say Rs. 80 Cr. + US\$ 200 m or Rs. 1480 Cr. including US\$ 200 m at an exchange rate of US\$=Rs70
2. Provide details on commercial operation as on COD of each Unit
3. For example: US \$ 200m, etc.

(Petitioner)

Details of project specific loans**PART 1
FORM- 7**Name of the Petitioner
Name of the Generating Station

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/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	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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

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 31.03.2019 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately 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, MCLR, LIBOR 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 drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawl & repayment along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2019 or COD, whichever is later
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing, etc.

(Petitioner)

Details of Allocation of corporate loans to various projects

Name of the Petitioner _____

Name of the Generating Station _____

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Remarks
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						
	Distribution of loan packages to various projects					
Name of the Projects						Total
Project 1						

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Remarks
1	2	3	4	5	6	7
Project 2						
Project 3 and so on						

Note:

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 31.03.2019 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately 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, MCLR, LIBOR 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 drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawl & repayment along with exchange rate at that date may be given.
16. Base Exchange Rate means the exchange rate prevailing as on 31.03.2019 or COD, whichever is later
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

(Petitioner)

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner _____
 Name of the Generating Station _____
 COD _____
 For Financial Year _____

S. No.	Head of Work / Equipment	ACE Claimed (Actual / Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis	Un-discharged Liability included in column 3	Cash basis	IDC included in col. 3			
1	2	3	4	(5 = 3 - 4)	6	7	8	9

1. In case the project has been completed and cost has already been admitted under any tariff notification(s) in the past, fill column 9 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the Tariff Order).
2. The above information needs to be furnished separately for each year / period of tariff period 2019-24.
3. In case of de-capitalisation of assets separate details to be furnished at column 1, 2, 3 and 4. Further, the original book value and year of capitalisation of such asset to be furnished at column 8. Where de-caps are on estimated basis the same to be shown separately.
4. Where any asset is rendered unserviceable the same shall be treated as de-capitalised during that year and original value of such asset to be shown at col. 3. and impaired value if any, year of its capitalisation to be mentioned at column 8.
5. Justification against each asset of capitalization should be specific to regulations under which claim has been made and the necessity of capitalization of that particular asset.

Note:

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

(Petitioner)

PART 1
FORM- 10

Financing of Additional Capitalisation

Name of the Petitioner
Name of the Generating Station
Date of Commercial Operation

(Amount in Rs Lakh)

	Actual					Admitted				
Financial Year (Starting from COD) ¹	Year 1	Year 2	Year3	Year4	Year 5 & So on	Year 1	Year 2	Year3	Year4	Year 5 & So on
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/Equipment										
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan ²										
Equity										
Internal Resources										
Others (Pl. specify)										
Total										

Note:

1. Year 1 refers to Financial Year of COD and Year 2, Year 3 etc. are the subsequent financial years respectively.
2. Loan details for meeting the additional capitalisation requirement should be given as per FORM-7 or 8 whichever is relevant.

(Petitioner)

PART 1
FORM- 11

Calculation of Depreciation

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs Lakh)

S. No.	Name of the Assets ¹	Gross Block as on 31.03.2019 or as on COD, whichever is later and subsequently for each year thereafter upto 31.3.2024	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.2024
1	2	3	4	5 = Col.3 X Col.4
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				
	TOTAL			
	Weighted Average Rate of			
	Depreciation (%)			

*Provide details of Freehold land and Lease hold land separately

Note:

1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)

Statement of Depreciation

Name of the Petitioner _____
 Name of the Generating Station _____

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1.	Opening Capital Cost						
2.	Closing Capital Cost						
3.	Average Capital Cost						
4.	Freehold land						
5.	Rate of depreciation						
6.	Depreciable value						
7.	Balance useful life at the beginning of the period						
8.	Remaining depreciable value						
9.	Depreciation (for the period)						
10.	Depreciation (annualised)						
11.	Cumulative depreciation at the end of the period						
12.	Less: Cumulative depreciation adjustment on account of un-discharged liabilities deducted as on 01.04.2009						
13.	Less: Cumulative depreciation adjustment on account of de-capitalisation						
14.	Net Cumulative depreciation at the end of the period						

1. In case of details of FERV, give information for the applicable period.

(Petitioner)

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of the Petitioner

Name of the Generating Station

(Amount in Rs. Lakh)

Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Loan-1						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan-2						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan-3 and so on						
Gross loan - Opening						

Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Total Loan						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Interest on loan						
Weighted average Rate of Interest on Loans						

Note:

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

(Petitioner)

Draw Down Schedule for Calculation of IDC & Financing Charges

Name of the Petitioner

Name of the Generating Station

S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
1	Loans									
1.1	Foreign Loans									
1.1.1	Foreign Loan ¹									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.2	Foreign Loan ²									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.3	Foreign Loan ³									

S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.4	--									
	--									
	--									
1.1	Total Foreign Loans									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.2	Indian Loans									
1.2.1	Indian Loan ¹									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	

S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
	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									

S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
	Foreign Exchange Rate Variation									
	Hedging Cost									
2	Equity									
2.1	Foreign equity drawn									
2.2	Indian equity drawn	--	--		--	--		--	--	
	Total equity deployed									

Note:

1. Drawl of debt and equity shall be on pari-passu basis quarter wise to meet the commissioning schedule. Drawl of higher equity in the beginning is permissible
2. Applicable interest rates including reset dates used for above computation may be furnished separately
3. In case of multi unit project details of capitalization ratio used to be furnished.

(Petitioner)

**Details of Source wise Fuel for Computation of
Energy Charges¹**

Name of the Petitioner _____

Name of the Generating Station _____

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2019 as the case may be)			For preceding 2nd Month (from COD or from 1.4.2019 as the case may be)		For preceding 1st Month (from COD or from 1.4.2019 as the case may be)	
			[Domestic Source] ⁸⁴⁽ⁱⁱ⁾	[-] ⁸⁴⁽ⁱ⁾	Imported	Domestic	Imported	Domestic	Imported
(A)	OPENING QUANTITY								
1	Opening Quantity of Coal/Lignite	(MMT)							
2	Value of Stock								
(B)	QUANTITY								
3	Quantity of Coal/Lignite supplied by Coal/Lignite Company	(MMT)							

⁸⁴⁽ⁱ⁾ Deleted *vide* First Amendment Regulations, 2020 w.e.f. 03.02.2021

⁸⁴⁽ⁱⁱ⁾ Substituted *vide* First Amendment Regulations, 2020 w.e.f. 03.02.2021

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2019 as the case may be)			For preceding 2nd Month (from COD or from 1.4.2019 as the case may be)		For preceding 1st Month (from COD or from 1.4.2019 as the case may be)	
4	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)							
5	Coal supplied by Coal/Lignite Company (3+4)	(MMT)							
6	Normative Transit & Handling Losses (For coal/Lignite based Projects)	(MMT)							
7	Net coal / Lignite Supplied (3-4)	(MMT)							
(C)	PRICE								
8	Amount charged by the Coal /Lignite Company	(Rs.)							
9	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)							
10	Handling, Sampling and such other similar charges								
11	Total amount Charged (8+9+10)	(Rs.)							
(D)	TRANSPORATION								
12	Transportation charges by rail/ship/road transport	(Rs.)							
	By Rail								
	By Road								

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2019 as the case may be)			For preceding 2nd Month (from COD or from 1.4.2019 as the case may be)		For preceding 1st Month (from COD or from 1.4.2019 as the case may be)	
	By Ship								
								
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)							
14	Demurrage Charges, if any	(Rs.)							
15	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)							
16	Total Transportation Charges [(12+13-14+15)] ⁸⁵	(Rs.)							
17	Total amount Charged for coal/lignite supplied including Transportation (11+16)	(Rs.)							
E)	TOTAL COST								
18	Landed cost of coal/ Lignite(2+17)/(1+7)	Rs./MT							
19	Blending Ratio (Domestic/Imported)								

⁸⁵Substituted *vide* First Amendment Regulations, 2020 w.e.f. 03.02.2021

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2019 as the case may be)			For preceding 2nd Month (from COD or from 1.4.2019 as the case may be)		For preceding 1st Month (from COD or from 1.4.2019 as the case may be)	
20	Weighted average cost of coal/ Lignite for preceding three months	Rs./MT							
F)	QUALITY								
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(kCal/Kg)							
22	GCV of Domestic Coal supplied as per bill of Coal Company	(kCal/Kg)							
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(kCal/Kg)							
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)							
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)							
26	GCV of Domestic Coal of the opening stock as received at Station	(kCal/Kg)							
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)							
28	GCV of Imported Coal of	(kCal/Kg)							

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2019 as the case may be)			For preceding 2nd Month (from COD or from 1.4.2019 as the case may be)		For preceding 1st Month (from COD or from 1.4.2019 as the case may be)	
	opening stock as received at Station								
29	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)							
30	Weighted average GCV of coal/ Lignite as Received	(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 with appropriate units.
2. As billed and as received GCV, quantity of coal, and price should be submitted as certified by statutory auditor.
- [3. Details to be provided for each type of coal i.e. domestic coal, imported coal and e-auction coal separately.]⁸⁶
4. Break up of the amount charged by the Coal Company is to be provided separately.

(Petitioner)

⁸⁶Substituted *vide* First Amendment Regulations, 2020 w.e.f. 03.02.2021

PART 1

FORM- 16

Details of Limestone for
Computation of Energy Charge Rate

Name of the Petitioner
 Name of the Generating Station

S. No.	Month	Unit	For preceding	For preceding	For preceding
			3rd Month (from COD or from 1.4.2019 as the case may be)	2nd Month (from COD or from 1.4.2019 as the case may be)	1st Month (from COD or from 1.4.2019 as the case may be)
1	Quantity of Limestone supplied by Limestone supply Company	(MMT)			
2	Adjustment (+/-) in quantity supplied made by Limestone supply Company	(MMT)			
3	Limestone supplied by Limestone supply Company(1+2)	(MMT)			
4	Net Limestone Supplied (3-4)	(MMT)			
5	Amount charged by the Limestone supply Company	(Rs.)			
6	Adjustment (+/-) in amount charged made by Limestone supply Company	(Rs.)			
7	Total amount Charged (6+7)	(Rs.)			
8	Transportation charges by rail/ship/road transport	(Rs.)			
9	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)			
10	Demurrage Charges, if any	(Rs.)			
11	Total Transportation Charges (8+/-9-10)	(Rs.)			
12	Total amount Charged for Limestone supplied including Transportation (7+11)	(Rs.)			

(Petitioner)

Annexure-I
Part I
[FORM- 16A]

Details of Reagent for
Computation of Supplementary Energy Charge Rate

Name of the Petitioner _____
Name of the Generating Station _____

S.No.	Month	Unit	For preceding	For preceding	For preceding
			3 rd Month (from ODe)	2 nd Month (from ODe)	1 st Month (from ODe)
1	Quantity of Reagent supplied by Limestone supply Company				
2	Adjustment (+/-) in quantity supplied made by Limestone or Reagent supply Company				
3	Net quantity of Reagent Received (1±2)				
4	Amount charged for Reagent supply Company	(Rs.)			
5	Adjustment (+/-) in amount charged made for Reagent supply by the Company	(Rs.)			
6	Total amount Charged (4±5)	(Rs.)			
7	Transportation charges by rail/ ship/ road transport	(Rs.)			
8	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)			
9	Demurrage Charges, if any	(Rs.)			
10	Total Transportation Charges (7±8-9)	(Rs.)			

11	Total amount Charged for Reagent supplied including Transportation (6+10)	(Rs.)			
12	Weighted Average Cost of Reagent during the month	(Rs/tonne)			
13	Purity of Reagent received during the month	(%)			

(Petitioner)]⁸⁷

⁸⁷ Inserted *vide* First Amendment Regulations, 2020 *w.e.f.* 03.02.2021

PART 1

FORM- 17

Details of Capital Spares

Name of the Petitioner

Name of the Generating Station

S. No.	Details of Capital Spares and Expenses		Claimed as a part of additional Capitalisation	Funded through compensatory allowance	Funded through Special allowance (If Applicable)	Claimed as a part of stores and spares
	Name of spare	Amount in Rs. Lakh				
1						
2						
3						
4						
5						
6						
7						
8						

(Petitioner)

PART 1
FORM- 18

Non-Tariff Income

Name of the Petitioner
Name of the Generating Station

S. No.	Parameters	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1.	Income from rent of land or buildings						
2.	Income from sale of scrap						
3.	Income from advertisements						

Note: To be submitted at the time of truing up

(Petitioner)

Details of Water Charges

Name of the Petitioner _____
Name of the Generating Station _____

S. No.	Details of Water charges (excluding water cess)		Quantity allocated	Normative consumption at 85% PLF	Rate specified (as per govt. notification or agreement)	Spillage of water (in percentage)	Amount Claimed
	Name of source and quantity	Amount	Unit....	Unit....			
1							
2							
3							
4							
5							
6							

(Petitioner)

Details of Statutory Charges

Name of the Petitioner _____
Name of the Generating Station _____

Particulars	Unit Rate	No. of Units	Amount Claimed
Electricity Duty			
Water Cess			
...			
...			
...			

(Petitioner)

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Projects

Name of the Petitioner _____
Name of the Generating Station _____

New Projects

Capital Cost Estimates

Board of Director/ Agency approving the Capital cost estimates		
Date of approval of the Capital cost estimates		
	Present Day Cost	Completed Cost
Price level of approved estimates	As on 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, IEDC & FC (Rs. Lakh)		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Capital cost excluding IDC, IEDC, FC, FERV & Hedging Cost (Rs. Lakh)		
IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Total IDC, IEDC, FC, FERV & Hedging Cost (Rs. Lakh)		
Rate of taxes & duties considered		
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		

Domestic Component (Rs. Lakh)	
Capital cost Including IDC, IEDC & FC (Rs. Lakh)	
Schedule of Commissioning	
Scheduled COD of Unit-I/Block-I as per Investment Approval	
Scheduled COD of Unit-II/Block-II as per Investment Approval	

Scheduled COD of last Unit/Block	

Note:

1. Copy of Investment approval letter should be enclosed.
2. Details of Capital Cost are to be furnished as per FORM B or C as applicable.
3. Details of IDC & Financing Charges are to be furnished as per FORM-14.

(Petitioner)

Break-up of Capital Cost for New Coal/Lignite based projects

Name of the Petitioner _____
Name of the Generating Station _____

(Amount in Rs. Lakh)

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure as on COD/anticipated COD	Liabilities/ Provisions	Variation (3 – 4-5)	Specific Reasons for Variation	Estimated Capital expenditure upto Cut-off date
			Actual Amount				
1	2	3	4	5	6	7	8
1	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	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 Handling & Storage system						
2.3.7	Ash Handling System						
2.3.8	Coal Handling Plant						

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure as on COD/anticipated COD	Liabilities/ Provisions	Variation (3 – 4-5)	Specific Reasons for Variation	Estimated Capital expenditure upto Cut-off date
			Actual Amount				
1	2	3	4	5	6	7	8
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						
2.3.15	FGD system, if any						
2.3.16	De-salination plant for sea-water intake						
2.3.17	External coal handling in Jetty, if any						
	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	Control & Instrumentation (C & I) Package						
	Total Plant & Equipment excluding taxes & Duties						
2.6	Taxes & Duties						

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure as on COD/anticipated COD	Liabilities/ Provisions	Variation (3 – 4-5)	Specific Reasons for Variation	Estimated Capital expenditure upto Cut-off date
			Actual Amount				
1	2	3	4	5	6	7	8
3	Initial Spares						
4	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 handling & 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	Construction & Pre-Commissioning Expenses						
5.1	Erection Testing and commissioning						
5.2	Site supervision						

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure as on COD/anticipated COD	Liabilities/ Provisions	Variation (3 – 4-5)	Specific Reasons for Variation	Estimated Capital expenditure upto Cut-off date
			Actual Amount				
1	2	3	4	5	6	7	8
5.3	Operator's Training						
5.4	Construction Insurance						
5.5	Tools & Plant						
5.6	Startup fuel						
	Total Construction & Pre-Commissioning Expenses						
6	Overheads						
6.1	Establishment						
6.2	Design & Engineering						
6.3	Audit & Accounts						
6.4	Contingency						
	Total Overheads						
7	Total Capital cost excluding IDC & FC						
8	IDC, FC, FERV & Hedging Cost						
8.1	Interest During Construction (IDC)						
8.2	Financing Charges (FC)						
8.3	Foreign Exchange Rate Variation (FERV)						
8.4	Hedging Coat						
	Total of IDC, FC,FERV & Hedging Cost						

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure as on COD/anticipated COD	Liabilities/ Provisions	Variation (3 – 4-5)	Specific Reasons for Variation	Estimated Capital expenditure upto Cut-off date
			Actual Amount				
1	2	3	4	5	6	7	8
9	Capital cost including IDC, FC, FERV & Hedging Cost						

**Provide details of Freehold land and Lease hold land separately*

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the generating company.
2. In case of both time & cost overrun, a detailed note giving reasons of such time and cost over-run should be submitted clearly, bringing out the agency responsible and whether such time and cost overrun was beyond the control of the generating company.
3. The implication on cost due to time over run, if any shall be submitted separately giving details of increase in prices in different packages from scheduled COD to Actual COD/anticipated COD, increase in IEDC from scheduled COD to actual COD/anticipated COD and increase of IDC from scheduled COD to actual anticipated COD.
4. **Impact on account of each reason for Time over run on Cost of project should be quantified and substantiated with necessary documents and supporting workings.**
5. A list of balance work assets/work wise including initial spare on original scope of works along with estimate shall be furnished positively.

(Petitioner)

Break-up of Capital Cost for Gas/Liquid fuel based projects

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs. Lakh)

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure	Liabilities/Provisions	Variation (3 – 4-5)	Specific Reasons for Variation*	Actual/Estimated Capital Expenditure upto Cut-off date
1	2	3	4	5	6	7	8
1	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	Plant & Equipment						
2.1	Steam Generator Island						
2.2	Turbine Generator Island						
2.3	WHRB Island						
2.4	BOP Mechanical						
2.4.1	Fuel Handling & Storage system						
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						

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure	Liabilities/Provisions	Variation (3 – 4-5)	Specific Reasons for Variation*	Actual/Estimated Capital Expenditure upto Cut-off date
1	2	3	4	5	6	7	8
2.4.8	Air Condition & Ventilation System						
2.4.9	Fire fighting System						
2.4.10	HP/LP Piping						
	Total BOP Mechanical						
2.5	BOP Electrical						
2.5.1	Switch Yard Package						
2.5.2	Transformers Package						
2.5.3	Switch gear Package						
2.5.4	Cables, Cable facilities & grounding						
2.5.5	Lighting						
2.5.6	Emergency D.G. set						
	Total BOP Electrical						
2.6	Control & Instrumentation (C & I) Package						
	Total Plant & Equipment excluding taxes & Duties						
2.7	Taxes & Duties						
3	Initial Spares						
4	Civil Works						
4.1	Main plant/ Adm. Building						
4.2	External Water Supply System						
4.3	CW system						

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure	Liabilities/Provisions	Variation (3 – 4-5)	Specific Reasons for Variation*	Actual/Estimated Capital Expenditure upto Cut-off date
1	2	3	4	5	6	7	8
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	Fire fighting System						
	Total Civil works						
5	Construction & Pre- Commissioning Expenses						
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	Startup fuel						
	Total Construction & Pre- Commissioning Expenses						
6	Overheads						
6.1	Establishment						
6.2	Design & Engineering						
6.3	Audit & Accounts						
6.4	Contingency						

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure	Liabilities/Provisions	Variation (3 – 4-5)	Specific Reasons for Variation*	Actual/Estimated Capital Expenditure upto Cut-off date
1	2	3	4	5	6	7	8
	Total Overheads						
7	Capital cost excluding IDC & FC						
8	IDC, FC, FERV & Hedging Cost						
8.1	Interest During Construction (IDC)						
8.2	Financing Charges (FC)						
8.3	Foreign Exchange Rate Variation (FERV)						
8.4	Hedging Cost						
	Total of IDC, FC, FERV & Hedging Cost						
9	Capital cost including IDC, FC, FERV & Hedging Cost						

**Provide details of Freehold land and Lease hold land separately*

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the generating company.
2. In case of time & cost overrun, a detailed note giving reasons of such time and cost over-run should be submitted clearly bringing out the agency responsible and whether such time and cost overrun was beyond the control of the generating company.
3. The implication on cost due to time over run, if any shall be submitted separately giving details of increase in prices in different packages from scheduled COD to Actual COD/anticipated COD, increase in IEDC from scheduled COD to actual COD/anticipated COD and increase of IDC from scheduled COD to actual anticipated COD.

4. Impact on account of each reason for Time over run on Cost of project should be quantified and substantiated with necessary documents and supporting workings. A list of balance work assets/work wise including initial spare on original scope of works along with estimate shall be furnished positively

(Petitioner)

Break-up of Construction/Supply/Service packages

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs. Lakh)

S. No.	Name/No. of Construction / Supply / Service Package	Package A	Package B	Package C	...	Total Cost of all packages
1	Scope of works ¹ (in line with head of cost break-ups as applicable)					
2	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work					
3	No. of bids received					
4	Date of Award					
5	Date of Start of work					
6	Date of Completion of Work/ Expected date of completion of work					
7	Value of Award ² in (Rs. Lakh)					
8	Firm or With Escalation in prices					
9	Actual capital expenditure till the completion or up to COD whichever is earlier(Rs.Lakh)					
10	Taxes & Duties and IEDC (Rs. Lakh)					
11	IDC, FC, FERV & Hedging cost (Rs. Lakh)					
12	Sub -total (9+10+11) (Rs. Lakh)					

Note:

1. The scope of work in any package should be indicated in conformity of Capital cost break-up for the coal/lignite based plants in the FORM-B to the extent possible. In case of Gas/Liquid fuel based projects, break down in the similar manner in the relevant heads as per FORM-C.
2. If there is any package, which need to be shown in Indian Rupee and foreign currency(ies), the same should be shown separately along with the currency, the exchange rate and the date e.g. Rs.80 Cr. +US\$50m=Rs.430Cr. at US\$=Rs70 as on say1.4.19.

(Petitioner)

PART 1
FORM- E

Details of variables, parameters, optional package etc. for New Project

Name of the Petitioner

Name of the Generating Station

Unit Size		
Number of Units		
Greenfield/Extension		
S. No.	Variables	(Design Operating Range) Values
1	Coal Quality – Calorific Value	
2	Ash Content	
3	Moisture Content	
4	Boiler Efficiency	
5	Suspended Particulate Matter	
6	Ash Utilization	
7	Boiler Configuration	
8	Turbine Heat Rate	
9	CW Temperature	
10	Water Source	
11	Distance of Water Source	
12	Clarifier	
13	Mode of Unloading Oil	
14	Coal handling Mechanism	
15	Type of Fly Ash Disposal and Distance	
16	Type of Bottom Ash Disposal and Distance	
17	Type of Soil	
18	Foundation Type (Chimney)	
19	Water Table	
20	Seismic and Wind Zone	
21	Condensate Cooling Method	
22	Desalination/RO Plant	
23	Evacuation Voltage Level	
24	Type of Coal (Domestic/Imported)	
Parameter/Variables		Values
Completion Schedule		
Terms of Payment		
Performance Guarantee Liability		
Basis of Price (Firm/Escalation-Linked)		
Equipment Supplier (Country of Origin)		
Optional Packages		Yes/No
Desalination Plant/RO Plant		
MGR		
Railway Siding		
Unloading Equipment at Jetty		
Rolling Stock/Locomotive		
FGD Plant		
Length of Transmission Line till Tie Point (in km)		

(Petitioner)

Detail of cost over run

Name of the Petitioner
Name of the Generating Station

S. No.	Break Down	Original Cost (Rs. Lakh) as approved by the Board of Members	Actual/Estimate d Cost as incurred/to be incurred (Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
1	Cost of Land & Site Development					
1.1	Land*					
1.2	Rehabilitation & Resettlement (R&R)					
1.3	Preliminary Investigation & Site Development					
2	Plant & Equipment					
2.1	Steam Generator Island					
2.2	Turbine Generator Island					
2.3	BOP Mechanical					
2.3.1	Fuel Handling & Storage system					
2.3.2	External water supply system					
2.3.3	DM water Plant					
2.3.4	Clarification plant					
2.3.5	Chlorination Plant					
2.3.6	Fuel Handling & Storage system					
2.3.7	Ash Handling System					
2.3.8	Coal Handling Plant					
2.3.9	Rolling Stock and Locomotives					

S. No.	Break Down	Original Cost (Rs. Lakh) as approved by the Board of Members	Actual/Estimate d Cost as incurred/to be incurred (Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
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	Control & Instrumentation (C & I) Package					
	Total Plant & Equipment excluding taxes & Duties					
3	Initial Spares					
4	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					

S. No.	Break Down	Original Cost (Rs. Lakh) as approved by the Board of Members	Actual/Estimate d Cost as incurred/to be incurred (Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
4.6	Chlorination plant					
4.7	Fuel handling & 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	Construction & Pre- Commissioning Expenses					
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	Startup fuel					
	Total Construction & Pre- Commissioning Expenses					
6	Overheads					
6.1	Establishment					
6.2	Design & Engineering					
6.3	Audit & Accounts					

S. No.	Break Down	Original Cost (Rs. Lakh) as approved by the Board of Members	Actual/Estimate d Cost as incurred/to be incurred (Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
6.4	Contingency					
	Total Overheads					
7	Capital cost excluding IDC & FC					
8	IDC, FC, FERV & Hedging Cost					
8.1	Interest During Construction (IDC)					
8.2	Financing Charges (FC)					
8.3	Foreign Exchange Rate Variation (FERV)					
8.4	Hedging Cost					
	Total of IDC, FC, FERV & Hedging Cost					
9	Capital cost including IDC, FC, FERV & Hedging Cost					

**Submit details of Freehold and Lease hold land*

Note: Impact on account of each reason for Cost overrun should be quantified and substantiated with necessary documents and supporting workings.

(Petitioner)

Detail of time over run

Name of the Petitioner _____
Name of the Generating Station _____

S. No	Description of Activity /Works /Service	Original Schedule (As per Planning)		Actual Schedule (As per Actual)		Time Over-Run Days	Reasons for delay	Other Activity affected (Mention S. No. of activity affected)
		Start Date	Completion Date	Actual Start Date	Actual Completion Date			
1								
2								
3								
4								
5								
6								
7								
8								
9								
....							

1. Delay on account of each reason in case of time overrun should be quantified and substantiated with necessary documents and supporting workings.
2. Indicate the activities on critical path.

(Petitioner)

Statement of Additional Capitalisation during five year before the end of useful life of the Project

Name of the Petitioner _____
 Name of the Generating Station _____
 COD _____

(Amount in Rs. Lakh)

S. No.	Year	Work / Equipment added during last five years of useful life of each Unit/Station	ACE Claimed (Actual / Projected)				Regulations under which claimed	Justification	Impact on life extension
			Accrual basis	Un- discharged Liability included in col. 4	Cash basis	IDC included in col. 4			
1	2	3	4	5	(6=4-5)	7	8	9	10

Note:

1. Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes
2. Justification for additional capital expenditure claim for each asset should be relevant to regulations under which claim has been made and the necessity of capitalization of the asset.

(Petitioner)

Details of Assets De-capitalized during the period

Name of the Petitioner
Name of the Generating Station
Region

State District

(Amount in Rs. Lakh)

S. No.	Name of the Asset	Nature of de-capitlization (whether claimed under exclusion or as additional capital expenditure)	Original Value of the Asset Capitalised	Year Put to use	Depreciation recovered till date of de-capitalization	Whether earning RoE at the normal rate of weightage average rate of interest on loan
1	2	3	4	5	6	7
1						
2						
3						
4						
5						

Note: Year wise detail need to be submitted.

(Petitioner)

Reconciliation of capitalisation claimed vis-à-vis books

Name of the Petitioner

Name of the Generating Station

COD

(Amount in Rs. Lakh)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Closing Gross Block as per IND AS					
2	Add/Less: Adjustments*					
3	Closing Gross Block as per IGAAP					
4	Opening Gross Block as per IND AS					
5	Add/Less: Adjustments*					
6	Opening Gross Block as per IGAAP					
7	Total Additions as per books (G= 3 - 5)					
8	Less: Additions pertaining to other Stages (give Stage wise breakup)					
9	Net Additions pertaining to instant project/Unit/Stage					
10	Less: Exclusions (items not allowable / not claimed)					
11	Net Additional Capital Expenditure Claimed (on accrual basis)					
12	Less: Un-discharged Liabilities (as per IGAAP)					
13	Add: Discharges of un-discharged liabilities, corresponding to admitted assets/works (as per IGAAP)					
14	Net Additional Capital Expenditure Claimed (on cash basis)					

Note: (1) Form is to be certified by the Auditor and Certificate issued as per the guidelines prescribed by their governing body.

(2) Reason for exclusion of any expenditure shall be given in Clear terms.*Break-up to be specified.

(Petitioner)

Statement showing items/assets/works claimed under Exclusions:

Name of the Petitioner _____
Name of the Generating Station _____
COD _____

(Amount in Rs. Lakh)

S. No.	Head of Work / Equipment	ACE Claimed under Exclusion				Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	
1	2	3	4	(5 = 3 – 4)	6	7

Note: 1. Exclusions claimed on assets not allowed in Tariff should be supported by the specific reference of Commission Order date, Petition No., amount disallowed, etc.

2. For inter unit transfer, nature of transfer i.e. temporary or permanent should be mentioned. It is to be certified that exclusion sought in receiving station only and not in sending station or in both the station.

(Petitioner)

PART 1
FORM- L

Name of the Petitioner _____

Name of the Generating Station _____

Statement of Capital cost

(To be given for relevant dates and year wise)

(Amount in Rs. Lakh)

S. No.	Particulars	As on relevant date		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening Gross Block Amount as per books			
	b) Amount of IDC in A(a) above			
	c) Amount of FC in A(a) above			
	d) Amount of FERV in A(a) above			
	e) Amount of Hedging Cost in A(a) above			
	f) Amount of IEDC in A(a) above			
B	a) Addition in Gross Block Amount during the period (Direct purchases)			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Addition in Gross Block Amount during the period (Transferred from CWIP)			
	b) Amount of IDC in C(a) above			

S. No.	Particulars	As on relevant date		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			
	e) Amount of Hedging Cost in C(a) above			
	f) Amount of IEDC in C(a) above			
D	a) Deletion in Gross Block Amount during the period			
	b) Amount of IDC in D(a) above			
	c) Amount of FC in D(a) above			
	d) Amount of FERV in D(a) above			
	e) Amount of Hedging Cost in D(a) above			
	f) Amount of IEDC in D(a) above			
E	a) Closing Gross Block Amount as per books			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			

Note:

1. Relevant date/s means date of COD of unit/s/station and financial year start date and end date

(Petitioner)

Name of the Petitioner _____
 Name of the Generating Station _____

Statement of Capital Woks in Progress
 (To be given for relevant dates and year wise)

(Amount in Rs. Lakh)

S. No.	Particulars	As on relevant date		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening CWIP as per books			
	b) Amount of IDC in A(a) above			
	c) Amount of FC in A(a) above			
	d) Amount of FERV in A(a) above			
	e) Amount of Hedging Cost in A(a) above			
	f) Amount of IEDC in A(a) above			
B	a) Addition in CWIP during the period			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Transferred to Gross Block Amount during the period			
	b) Amount of IDC in C(a) above			
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			
	e) Amount of Hedging Cost in C(a) above			

S. No.	Particulars	As on relevant date		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
	f) Amount of IEDC in C(a) above			
D	a) Deletion in CWIP during the period			
	b) Amount of IDC in D(a) above			
	c) Amount of FC in D(a) above			
	d) Amount of FERV in D(a) above			
	e) Amount of Hedging Cost in D(a) above			
	f) Amount of IEDC in D(a) above			
E	a) Closing CWIP as per books			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			

Note:

1. Relevant date/s means date of COD of unit/s/station and financial year start date and end date

(Petitioner)

Calculation of Interest on Normative Loan

Name of the Petitioner
Name of the Generating Station

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Gross Normative loan – Opening						
2	Cumulative repayment of Normative loan upto previous year						
3	Net Normative loan – Opening						
4	Add: Increase due to addition during the year / period						
5	Less: Decrease due to de-capitalisation during the year / period						
6	Less: Decrease due to reversal during the year / period						
7	Add: Increase due to discharges during the year / period						
8	Net Normative loan - Closing						
9	Average Normative loan						
10	Weighted average rate of interest						
11	Interest on Loan						

(Petitioner)

PART 1
FORM- O

Calculation of Interest on Working Capital

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Cost of Coal/Lignite ¹						
2	Cost of Main Secondary Fuel Oil ¹						
3	Fuel Cost ²						
4	Liquid Fuel Stock ²						
5	O & M Expenses						
6	Maintenance Spares						
7	Receivables						
8	Total Working Capital						
9	Rate of Interest						
10	Interest on Working Capital						

Note:

1. For Coal based/Lignite based generating stations
2. For Gas Turbine/Combined Cycle generating stations duly taking into account the annual mode of operation (last available) on gas fuel and liquid fuel

(Petitioner)

Incidental Expenditure up to SCOD and up to Actual/anticipated COD

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs. Lakh)

S. No.	Parameters	As on Scheduled COD	As on actual COD/anticipated COD
A	Head of Expenses:		
1	Employees' Benefits Expenses		
2	Finance Costs		
3	Water Charges		
4	Communication Expenses		
5	Power Charges		
6	Depreciation		
7	Other Office and Administrative Expenses		
8	Others (Please Specify Details)		
9	Other Pre-Operating Expenses		
...		
...		
B	Total Expenses		
	Less: Income from sale of tenders		
	Less: Income from guest house		
	Less: Income recovered from Contractors		
	Less: Interest on Deposits		
		

(Petitioner)

PART 1
FORM- Q

Expenditure under different packages up to SCOD and up to Actual/anticipated COD

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs. Lakh)

S. No.	Parameters	As on Scheduled COD	As on actual/anticipated COD
1	Package 1		
2	Package 2		
3	Package 3		
4	-----		
5	-----		
6			

(Petitioner)

PART 1
FORM- R

Actual cash expenditure

Name of the Petitioner

Name of the Generating Station

(Amount in Rs. Lakh)

Particulars	Quarter-I	Quarter-II	Quarter-III	Quarter-n / DOCO
Expenditure towards Gross Block				
Add: Expenditure towards CWIP				
Add: Capital Advances, if any				
Less: Un-discharged liabilities (included above)				
Add/Less: Others				
Payment to contractors / suppliers towards capital assets				
Cumulative payments				

Note: If there is variation between payment and fund deployment justification need to be furnished

(Petitioner)

PART 1
FORM- S

Statement of Liability Flow

Name of the Petitioner _____
Name of the Generating Station _____

Party	Asset / Work	Year of actual capitalisation	Original Liability	Liability as on 31.03.2019	Discharges (Year wise)	Reversal (Year wise)
a) For assets eligible for normal RoE						
b) For assets eligible for RoE at weightage average rate of interest on loan						

(Petitioner)

Summary of issue involved in the petition

1.	Petitioner:	
2.	Subject	
3.	Prayer:	
4.	Respondents	
	Name of Respondents	
	a.	
	b.	
	c.	
5.	Project Scope	
	Cost	
	Commissioning	
	Claim	
	AFC	
	Capital cost	
	Initial spare	
	NAPAF (Gen)	
	Any Specific	

TARIFF FILING FORMS (HYDRO)

FOR DETERMINATION OF TARIFF

PART-II

Annexure-I

PART-II**Checklist of Forms and other information/ documents for tariff filing for
Hydro Stations**

Form No.	Title of Tariff Filing Forms (Hydro)	Tick
FORM- 1	Summary of Tariff	
FORM -1 (I)	Statement showing claimed capital cost	
FORM -1 (II)	Statement showing Return on Equity	
FORM-2	Details of COD, Type of hydro station, Normative Annual Plant Availability Factor (NAPAF) & Other normative parameters considered for tariff calculation	
FORM-3	Salient Features of Hydroelectric Project	
FORM- 4	Details of Foreign loans	
FORM- 4A	Details of Foreign Equity	
FORM-5	Abstract of Admitted Capital Cost for the existing Projects	
FORM-5A	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects	
FORM-5B	Break-up of Capital Cost for Hydro Power Generating Station	
FORM-5C	Break-up of Capital Cost for Plant & Equipment	
FORM-5D	Break-up of Construction/Supply/Service packages	
FORM-5Ei	In case there is cost over run	
FORM-5Eii	In case there is time over run	
FORM- 6	Financial Package upto COD	
FORM- 7	Details of Project Specific Loans	
FORM- 8	Details of Allocation of corporate loans to various projects	
FORM-9A	Statement of Additional Capitalisation after COD	
FORM 9B	Statement of Additional Capitalisation during end of the Project	
FORM 9Bi	Details of Asset De-capitalized during the period	
FORM- 9C	Statement showing reconciliation of ACE claimed with the capital additions as per books	
FORM- 9D	Statement showing items/assets/works claimed under Exclusions	
FORM- 9E	Statement of Capital cost	
FORM- 9F	Statement of Capital Woks in Progress	

Form No.	Title of Tariff Filing Forms (Hydro)	Tick
FORM- 10	Financing of Additional Capitalisation	
FORM- 11	Calculation of Depreciation on original project cost	
FORM- 12	Statement of Depreciation	
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	
FORM- 13A	Calculation of Interest on Normative Loan	
FORM- 13B	Calculation of Interest on Working Capital	
FORM- 13C	Non-Tariff Income	
FORM- 13D	Incidental Expenditure during Construction	
FORM- 14	Draw Down Schedule for Calculation of IDC & Financing Charges	
FORM- 14A	Actual cash expenditure	
FORM- 15A	Design energy and peaking capability (month wise)- ROR with Pondage/Storage type new stations	
FORM- 15B	Design energy and MW Continuous (month wise)- ROR type stations	
FORM- 16	Statement of Liability Flow	
FORM- 17	Operation & Maintenance Expense	
FORM- 18	Details of Statutory Charges	
FORM- 19	Summary of issue involved in the petition	
Other Information/ Documents		
Sl. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement 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	A. Station wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on COD of the Station for the new station & for the relevant years. B. Station wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the existing station for the relevant years.	
3	Copies of relevant loan Agreements	

Form No.	Title of Tariff Filing Forms (Hydro)	Tick
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 cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	
8	Generating Company shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the Generating Unit wise /stage wise/Station wise/ and subsequently consolidated at Company level as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2023-24. In case of initial tariff filing, the latest available Cost Audit Report should be furnished.	
9	Any other relevant information, (Please specify)	
10.	Reconciliation with Balance sheet of any actual additional capitalization and amongst stages of a generating station	
11.	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify the formats suitably as per available information to them for submission of required information for tariff purpose.	

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.

**PART-II
FORM- 1**

Summary of Tariff

Name of the Petitioner: _____

Name of the Generating Station: _____

Place (Region/District/State): _____

(Rs. lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.1	Depreciation						
1.2	Interest on Loan						
1.3	Return on Equity ¹						
1.4	Interest on Working Capital						
1.5	O & M Expenses						
	Total						

Note

1. Details of calculations, considering equity as per regulation, to be furnished.

(Petitioner)

PART-II
FORM- 1(I)

Name of the Petitioner: _____
Name of the Generating Station: _____

Statement showing claimed capital cost- (A+B)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Opening Capital Cost					
2.	Add: Addition during the year / period					
3.	Less: De-capitalisation during the year / period					
4.	Less: Reversal during the year / period					
5.	Add: Discharges during the year / period					
6.	Closing Capital Cost					
7.	Average Capital Cost					

Statement showing claimed capital cost eligible for RoE at normal rate (A)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Opening Capital Cost					
2.	Add: Addition during the year / period					
3.	Less: Decapitalisation during the year / period					
4.	Less: Reversal during the year / period					
5.	Add: Discharges during the year / period					
6.	Closing Capital Cost					
7.	Average Capital Cost					

Statement showing claimed capital cost eligible for RoE at weighted average rate of interest on actual loan portfolio (B)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Opening Capital Cost					
2.	Add: Addition during the year / period					
3.	Less: De-capitalisation during the year / period					
4.	Less: Reversal during the year / period					
5.	Add: Discharges during the year / period					
6.	Closing Capital Cost					
7.	Average Capital Cost					

(Petitioner)

PART II FORM-1(II)

Name of the Petitioner: _____

Name of the Generating Station: _____

Statement showing Return on Equity at Normal Rate

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Gross Opening Equity (Normal)					
2.	Less: Adjustment in Equity					
3.	Adjustment during the year					
4.	Net Opening Equity(Normal)					
5.	Add: Increase in equity due to addition during the year / period					
6.	Less: Decrease due to de-capitalisation during the year / period					
7.	Less: Decrease due to reversal during the year / period					
8.	Add: Increase due to discharges during the year / period					
9.	Net closing Equity (Normal)					
10.	Average Equity (Normal)					
11.	Rate of ROE					
12.	Total ROE					

(Petitioner)

Statement showing Return on Equity at Weighted Average Rate of Interest on Actual Loan Portfolio

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Gross Opening Equity [pertaining to Proviso to Regulation 30(2)]					
2.	Less: Adjustment in Equity					
3.	Adjustment during the year					
4.	Net Opening Equity					
5.	Add: Increase in equity due to addition during the year / period					
6.	Less: Decrease due to de-capitalisation during the year / period					
7.	Less: Decrease due to reversal during the year / period					
8.	Add: Increase due to discharges during the year / period					
9.	Net closing Equity [pertaining to Proviso to Regulation 30(2)]					
10.	Average Equity [pertaining to Proviso to Regulation 30(2)]					
11.	Rate of ROE (weighted average rate of interest on actual loan portfolio)					
12.	Total ROE					

Note: 1. Adjustment of equity as per Proviso to Regulation 18(3) of 2019 Tariff Regulations.

2. With respect to Equity infusion, the Generating Company is required to substantiate with supporting documents such as board resolutions, balance sheet/ reconciliation statement with balance sheet.

(Petitioner)

PART-II**FORM- 2****Details of COD, Type of hydro station, Normative Annual Plant Availability Factor (NAPAF) & other normative parameters considered for tariff calculation**

Name of the Petitioner: _____

Name of the Generating Station: _____

Year Ending March _____

S. No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Installed Capacity	MW						
2	Free power to home state	%						
3	Free Power under Local Area Development Fund (LADF)	%						
4	Date of commercial operation (actual/anticipated)							
	Unit-1							
	Unit-2							
	Unit-3							
5	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							
6	Type of excitation							
	a) Rotating exciters on generator							
	b) Static excitation							
7	Design Energy (Annual) ¹	GWh						
8	Auxiliary Consumption including Transformation losses	%						
9	Normative Plant Availability Factor (NAPAF)							

S. No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9.1	Maintenance Spares for WC	% of O&M						
9.2	Receivables for WC	in Months						
9.3	Base Rate of Return on Equity	%						
9.4	Base Rate of Return on Equity on Add. Capitalization							
9.5	Tax Rate ²	%						
9.6	Effective Tax Rate ⁴							
9.7	SBI Base Rate + 350 basis points as on _____ ³	%						

1. Monthwise 10day Design energy figures to be given separately with the petition.
2. Tax rate applicable to the company for the year FY2018-19 should also be furnished.
3. Mention relevant date
4. Effective tax rate is to be computed in accordance with Regulation 31 i.e. actual tax (or advance tax)/ gross income, where gross income refers the profit before tax.

(Petitioner)

Salient Features of Hydroelectric Project

Name of the Petitioner: _____

Name of the Generating Station: _____

1. Location	
State/Dist.	
River	
2. Diversion Tunnel	
Size, shape	
Length (M)	
3. Dam	
Type	
Maximum dam height (M)	
4. Spillway	
Type	
Crest level of spillway (M)	
5. Reservoir	
Full Reservoir Level (FRL) (M)	
Minimum Draw Down Level (MDDL) (M)	
Live storage (MCM)	
6. De-silting Chamber	
Type	
Number and Size	
Particle size to be removed(mm)	
7. Head Race Tunnel	
Size and type	
Length (M)	
Design discharge(Cumecs)	
8. Surge Shaft	
Type	
Diameter (M)	
Height (M)	
9. Penstock/Pressure shafts	
Type	
Diameter & Length (M)	
10. Power House	
Installed capacity (No of units x MW)	
Type of turbine	
Rated Head(M)	
Rated Discharge(Cumecs)	
Head at Full Reservoir Level (M)	
Head at Minimum Draw down Level (M)	

MW Capability at FRL	
MW Capability at MDDL	
11. Tail Race Tunnel/Channel	
Diameter (M) , shape	
Length (M)	
Minimum tail water level (M)	
12. Switchyard	
Type of Switch gear	
No. of generator bays	
No. of Bus coupler bays	
No. of line bays	
Efficiency (overall) Turbine and generator	

Note: Specify limitation on generation during specific time period(s) on account of restrictions on water use due to irrigation, drinking water, industrial, environmental considerations etc.

(Petitioner)

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

[illegible]

S. No.	Financial Year (Starting from COD)	Year 1				Year 2				Year 3 and so on			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
4	At the end of Financial year												
B	In case of Hedging ³												
1	At the date of hedging												
2	Period of hedging												
3	Cost of hedging												
	Currency ³¹ & so on												
A.1	At the date of Drawl ²												
2	Scheduled repayment date of principal												
3	Scheduled payment date of interest												
4	At the end of Financial year												
B	In case of Hedging ³												
1	At the date of hedging												
2	Period of hedging												
3	Cost of hedging												

1. Name of the currency to be mentioned e.g. US\$, DM, etc.
2. In case of more than one drawl during the year, Exchange rate at the date of each drawl to be given
3. Furnish details of hedging, in case of more than one hedging during the year or part hedging, details of each hedging are to be given
4. Tax (such as withholding tax) details as applicable including change in rates, date from which change effective etc. must be clearly indicated.

(Petitioner)

PART-II
FORM- 4A

Details of Foreign Equity

(Details only in respect of Equity infusion if any applicable to the project under petition)

Name of the Petitioner _____

Name of the Generating Station _____

Exchange Rate on date/s of infusion _____

S. No.	Financial Year	Year 1				Year 2				Year 3 and so on			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)
	Currency1¹												
A.1	At the date of infusion ²												
2													
3													
	Currency2¹												
A.1	At the date of infusion ²												
2													
3													
	Currency3¹												
A.1	At the date of infusion ²												
2													
3													
	Currency4¹ and so on												
A.1	At the date of infusion ²												
2													
3													

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

2. In case of equity infusion more than once during the year, Exchange rate at the date of each infusion to be given

(Petitioner)

PART-II
FORM- 5

Abstract of Admitted Capital Cost for the existing Projects

Name of the Petitioner _____
Name of the Generating Station _____

	Capital Cost as admitted by CERC	
a)	Capital cost admitted as on _____	
	(Give reference of the relevant CERC Order with Petition No. & Date)	
b)	Foreign Component, if any (In Million US \$ or the relevant Currency)	
c)	Foreign Exchange rate considered for the admitted Capital cost (Rs Lakh)	
d)	Total Foreign Component (Rs. Lakh)	
e)	Domestic Component (Rs. Lakh.)	
f)	Hedging cost, if any, considered for the admitted Capital cost (Rs. Lakh)	
	Total Capital cost admitted (Rs. Lakh) (d+e+f)	

(Petitioner)

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Projects**Name of the Petitioner** _____**Name of the Generating Station** _____**New Projects****Capital Cost Estimates**

Board of Director/ Agency approving the Capital cost estimates:		
Date of approval of the Capital cost estimates:		
	Present Day Cost	Completed Cost
Price level of approved estimates	As on 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, IEDC& FC		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Capital cost excluding IDC, IEDC, FC, FERV & Hedging Cost (Rs. Lakh)		
IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Total IDC, IEDC, FC, FERV & Hedging Cost (Rs. Lakh)		
Rate of taxes & duties considered		
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Capital cost Including IDC, IEDC& FC (Rs. Lakh)		
Schedule of Commissioning as per investment		

approval	
Scheduled COD of Unit-I	
Scheduled COD of Unit-II	

Scheduled COD of last Unit/Station	

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-14.

(Petitioner)

Break-up of Capital Cost for New Hydro Power Generating Station

Name of the Petitioner _____
 Name of the Generating Station _____

(Amount in Rs Lakh)

S. No. (1)	Break Down (2)	Original Cost as approved by Authority/Investment Approval (3)	Actual Capital Expenditure as on actual/anticipated COD (4)	Liabilities/Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)
1.0	Infrastructure Works					
1.1	Preliminary including Development					
1.2	Land*					
1.3	R&R expenditure					
1.4	Buildings					
1.5	Township					
1.6	Maintenance					
1.7	Tools & Plants					
1.8	Communication					
1.9	Environment & Ecology					
1.10	Losses on stock					
1.11	Receipt & Recoveries					
1.12	Total (Infrastructure works)					
2.0	Major Civil Works					
2.1	Dam, Intake & De-silting Chambers					

S. No. (1)	Break Down (2)	Original Cost as approved by Authority/Investment Approval (3)	Actual Capital Expenditure as on actual/anticipated COD (4)	Liabilities/Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)
2.2	HRT, TRT, Surge Shaft & Pressure shafts					
2.3	Power Plant civil works					
2.4	Other civil works (to be specified)					
2.5	Total (Major Civil Works)					
3.0	Hydro Mechanical equipment					
4.0	Plant & Equipment					
4.1	Initial spares of Plant & Equipment					
4.2	Total (Plant & Equipment)					
5.0	Taxes and Duties					
5.1	Custom Duty					
5.2	Other taxes & Duties					
5.3	Total Taxes & Duties					
6.0	Construction & Pre-commissioning expenses					
6.1	Erection, testing & commissioning					
6.2	Construction Insurance					

S. No. (1)	Break Down (2)	Original Cost as approved by Authority/Investment Approval (3)	Actual Capital Expenditure as on actual/anticipated COD (4)	Liabilities/Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)
6.3	Site supervision					
6.4	Total (Const. & Pre-commissioning)					
7.0	Overheads					
7.1	Establishment					
7.2	Design & Engineering					
7.3	Audit & Accounts					
7.4	Contingency					
7.5	Rehabilitation & Resettlement					
7.6	Total (Overheads)					
8.0	Capital Cost without IDC, FC, FERV & Hedging Cost					
9.0	IDC, FC, FERV & Hedging Cost					
9.1	Interest During Construction (IDC)					
9.2	Financing Charges (FC)					
9.3	Foreign Exchange Rate Variation (FERV)					
9.4	Hedging Cost					
9.5	Notional IDC					
9.6	Total of IDC, FC, FERV & Hedging					

S. No. (1)	Break Down (2)	Original Cost as approved by Authority/Investment Approval (3)	Actual Capital Expenditure as on actual/anticipated COD (4)	Liabilities/Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)
	Cost					
9.7	Revenue from Infirm Power					
10.0	Capital cost including IDC, FC, FERV & Hedging Cost					

**Provide details of Freehold Land, Leasehold Land and Land under reservoir separately*

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the generating company.
2. In case of both time & cost overrun, a detailed note giving reasons of such time and cost over-run should be submitted clearly bringing out the agency responsible and whether such time and cost overrun was beyond the control of the generating company.
3. The implication on cost due to time over run, if any shall be submitted separately giving details of increase in prices in different packages from scheduled COD to Actual COD/anticipated COD, increase in IEDC from scheduled COD to actual COD/anticipated COD and increase of IDC from scheduled COD to actual anticipated COD.
4. Impact on account of each reason for Time over run on Cost of project should be quantified and substantiated with necessary documents and supporting workings.
5. A list of balance work assets/work wise including initial spare on original scope of works along with estimate shall be furnished positively.

(Petitioner)

Break-up of Capital Cost for Plant & Equipment (New Projects)

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

S. No.	Break Down	Original Cost as approved by Authority/Investment Approval	Cost on Actual/anticipated COD	Variation	Reasons for Variation*
(1)	(2)	(3)	(4)	(3)	(4)
		Total Cost	Total Cost		
1.0	Generator, turbine & Accessories				
1.1	Generator package				
1.2	Turbine package				
1.3	Unit control Board				
1.4	C&I package				
1.5	Bus Duct of GT connection				
1.6	Total (Generator, turbine & Accessories)				
2.0	Auxiliary Electrical Equipment				
2.1	Step up transformer				
2.2	Unit Auxiliary Transformer				
2.3	Local supply transformer				
2.4	Station transformer				
2.5	SCADA				
2.6	Switchgear, Batteries, DC dist. Board				

S. No.	Break Down	Original Cost as approved by Authority/Investment Approval	Cost on Actual/anticipated COD	Variation	Reasons for Variation*
(1)	(2)	(3)	(4)	(3)	(4)
		Total Cost	Total Cost		
2.7	Telecommunication equipment				
2.8	Illumination of Dam, PH and Switchyard				
2.9	Cables & cable facilities, grounding				
2.10	Diesel generating sets				
2.11	Total (Auxiliary Elect. Equipment)				
3.0	Auxiliary equipment & services for power station				
3.1	EOT crane				
3.2	Other cranes				
3.3	Electric lifts & elevators				
3.4	Cooling water system				
3.5	Drainage & dewatering system				
3.6	Firefighting equipment				
3.7	Air conditioning, ventilation and heating				
3.8	Water supply system				
3.9	Oil handling equipment				
3.10	Workshop machines & equipment				
3.11	Total (Auxiliary equip. & services for PS)				

S. No.	Break Down	Original Cost as approved by Authority/Investment Approval	Cost on Actual/anticipated COD	Variation	Reasons for Variation*
(1)	(2)	(3)	(4)	(3)	(4)
		Total Cost	Total Cost		
4.0	Switchyard package				
5.0	Initial spares for all above equipment				
6.0	Total Cost (Plant & Equipment) excluding IDC, FC, FERV & Hedging Cost				
7.0	IDC, FC, FERV & Hedging Cost				
7.1	Interest During Construction (IDC)				
7.2	Financing Charges (FC)				
7.3	Foreign Exchange Rate Variation (FERV)				
7.4	Hedging Cost				
7.5	Total of IDC, FC, FERV & Hedging Cost				
8.0	Total Cost (Plant & Equipment) including IDC, FC, FERV & Hedging Cost				

Note: In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost overrun was beyond the control of the generating company.

(Petitioner)

Break-up of Construction/Supply/Service packages

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs Lakh)

S. No	Name/No. of Construction / Supply / Service Package	Package A	Package B	Package C	...	Total Cost of all packages
1	Scope of works ¹ (in line with head of cost break-ups as applicable)					
2	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work					
3	No. of bids received					
4	Date of Award					
5	Date of Start of work					
6	Date of Completion of Work/Expected date of completion of work					
7	Value of Award ² in (Rs. Lakh)					
8	Firm or With Escalation in prices					
9	Actual capital expenditure till the completion or up to COD whichever is earlier(Rs. Lakh)					
10	Taxes & Duties and IEDC (Rs. Lakh)					
11	IDC, FC, FERV & Hedging cost (Rs. Lakh)					
12	Sub -total (10+11+12) (Rs. Lakh)					

Note:

1. The scope of work in any package should be indicated in conformity of Capital cost break-up for the new Hydro Power Generating Station in the FORM-5B to the extent possible. For Plant & Equipment (New Projects)break down in the similar manner in the relevant 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 separately along with the currency, the exchange rate and the date

(Petitioner)

In case, there is cost over run

Name of the Petitioner

Name of the Generating Station

S. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimate d Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost	1	2
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Cost of Land & Site Development					
1.1	Land*					
1.2	Rehabilitation & Resettlement (R&R)					
1.3	Preliminary Investigation & Site Development					
2	Plant & Equipment					
2.1	Steam Generator Island					
2.2	Turbine Generator Island					
2.3	BOP Mechanical					
2.3.1	Fuel Handling & Storage system					
2.3.2	External water supply system					
2.3.3	DM water Plant					
2.3.4	Clarification plant					

		Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimate d Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
S. No.	Break Down	Total Cost	Total Cost	Total Cost	1	2
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2.3.5	Chlorination Plant					
2.3.6	Fuel Handling & 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	Firefighting 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					3

		Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimate d Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
S. No.	Break Down	Total Cost	Total Cost	Total Cost	1	2
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2.5	Control & Instrumentation (C & I) Package					
	Total Plant & Equipment excluding taxes & Duties					
3	Initial Spares					
4	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 handling & 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	Firefighting System					
4.13	Township & Colony					
4.14	Temp. construction &					

		Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimate d Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
S. No.	Break Down	Total Cost	Total Cost	Total Cost	1	2
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	enabling works					
4.15	Road & Drainage					
	Total Civil works					
5	Construction & Pre-Commissioning Expenses			3.1.1		
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	Startup fuel					
	Total Construction & Pre- Commissioning Expenses					
6	Overheads					
6.1	Establishment					
6.2	Design & Engineering					
6.3	Audit & Accounts					
6.4	Contingency					
	Total Overheads					
7	Capital cost excluding IDC & FC					

S. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost	1	2
(1)	(2)	(3)	(4)	(5)	(6)	(7)
8	IDC, FC, FERV & Hedging Cost					
8.1	Interest During Construction (IDC)					
8.2	Financing Charges (FC)					
8.3	Foreign Exchange Rate Variation (FERV)					
8.4	Hedging Cost					
	Total of IDC, FC, FERV & Hedging Cost					
9	Capital cost including IDC, FC, FERV & Hedging Cost					

*Submit details of Freehold and Lease hold land

Note: Impact on account of each reason for Cost overrun should be quantified and substantiated with necessary documents and supporting workings.

(Petitioner)

In case, there is time over run

Name of the Petitioner

Name of the Generating Station

S. No	Description of Activity/ Works/ Service	Original Schedule (As per Planning)		Actual Schedule (As per Actual)		Time Over-Run	Reasons for delay	Other Activity effected (Mention S. No of activity affected)
		Start Date	Completion Date	Actual Start Date	Actual Completion Date	Days		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1								
2								
3								
4								
5								
6								
7								
8								
9								
....							

1. Delay on account of each reason in case of time overrun should be quantified and substantiated with necessary documents and supporting workings.
2. Indicate the activities on critical path.

(Petitioner)

Financial Package upto COD

Name of the Petitioner _____
 Name of the Generating Station _____
 Project Cost as on COD¹ _____
 Date of Commercial Operation of the Station² _____

Particulars	Financial Package as Approved		Financial Package as on COD		As Admitted on COD	
	Currency and Amount ³		Currency and Amount ³		Currency and Amount ³	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Loan-I	US \$	200m				
Loan-II						
Loan-III						
and so on						
Equity-						
Foreign						
Domestic						
Total Equity						
Debt : Equity Ratio						

Note:

1. Say Rs. 80 Cr. + US\$ 200 m or Rs. 1480 Cr. including US\$ 200 m at an exchange rate of US\$=Rs70
2. Date of Commercial Operation means Commercial Operation of the last unit
3. For example: US \$ 200 m, etc.

(Petitioner)

PART-II
FORM- 7
Details of Project Specific Loans

Name of the Petitioner _____

Name of the Generating Station _____

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/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	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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

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 Dollars (\$), DM, Yen, Indian Rupee etc.
3. Details are to be submitted as on 31.03.2019 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately 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, MCLR, LIBOR etc. over which the margin is to be added. Documentary evidence for 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 drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately.
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of foreign loan, date of each drawl & repayment along with exchange rate at that date may be given with documentary evidence.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2019 for existing assets and as on COD for the remaining assets.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately.
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.
21. Call or put option, if any exercised by the generating company for refinancing of loan.
22. Copy of loan agreement.

(Petitioner)

PART-II

FORM- 8

Details of Allocation of corporate loans to various projects

Name of the Petitioner

Name of the Generating Station

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						
	Distribution of loan packages to various projects					
Name of the Projects						Total
Project 1						
Project 2						
Project 3 and so on						

Note:

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 Dollars (\$), DM, Yen, Indian Rupee etc.
3. Details are to be submitted as on 31.03.2019 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately 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, MCLR, LIBOR etc. over which the margin is to be added. Documentary evidence for 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 drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of foreign loan, date of each drawl& repayment along with exchange rate at that date may be given with documentary evidence.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2019 for existing assets and as on COD for the remaining assets.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately.
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.
21. Call or put option, if any exercised by the generating company for refinancing of loan.
22. Copy of loan agreement.

(Petitioner)

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner _____
 Name of the Generating Station _____
 COD _____
 For Financial Year _____

S. No.	Head of Work / Equipment	ACE Claimed (Actual / Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission , if any
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
(1)	(2)	(3)	(4)	(5=3-4)	(6)	(7)	(8)	(9)

1. In case the project has been completed and cost has already been admitted under any tariff notification(s) in the past, fill column 9 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order)
2. The above information needs to be furnished separately for each year / period of tariff period 2019-24.
3. In case of de-capitalisation of assets, separate details to be furnished at column 1, 2, 3 and 4. Further, the original book value and year of capitalisation of such asset to be furnished at column 8. Where de-caps are on estimated basis the same to be shown separately.
4. Where any asset is rendered unserviceable, the same shall be treated as de-capitalized during that year and original value of such asset to be shown at col. 3. In addition, impaired value if any, year of its capitalisation to be mentioned at column 8.
5. Justification against each asset of capitalization should be specific to regulations under which claim has been made and the necessity of capitalization of that particular asset.

Note:

1. Fill the form in chronological order year wise along with detailed justification clearly bringing out the necessity and the benefits accruing to the beneficiaries.
2. In case initial spares are purchased along with any equipment, then the cost of such spares should be indicated separately. e.g. Rotor - 50 Crs.
Initial spares- 5 Crs.

(Petitioner)

PART-II
FORM- 9B

Statement of Additional Capitalisation during end of the Project

Name of the Petitioner _____
 Name of the Generating Station _____
 COD _____

S. No.	Year	Work/Equipment added during last five years of useful life of each Unit/Station	Amountcapitalized /Proposed to be capitalized (Rs Lakh)	Justification for capitalisation proposed	Impact on life extension
(1)	(2)	(3)	(4)	(5)	(6)
1					
2					
3					
4					
5					

Note:

1. Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes
2. Justification for additional capital expenditure claim for each asset should be relevant to regulation under which claim and the necessity of capitalization of the asset

(Petitioner)

Details of Assets De-capitalized during the period

Name of the Petitioner _____
Name of the Generating Station _____
Region State District

S. No.	Name of the Asset	Nature of de-capitalization (whether claimed under exclusion or as additional capital expenditure)	Original Value of the Asset Capitalized	Year Put to use	Depreciation recovered till date of de- capitalization
(1)	(2)	(3)	(4)	(5)	(6)
1					
2					
3					
4					
5					

Note: Year wise detail need to be submitted.

(Petitioner)

FORM- 9C

Statement showing reconciliation of ACE claimed with the capital additions as per books

Name of the Petitioner _____
 Name of the Generating Station _____
 COD _____

(Amount in Rs. Lakh)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Closing Gross Block as per IND AS					
2	Add/Less: Adjustments					
3	Closing Gross Block as per IGAAP					
4	Opening Gross Block as per IND AS					
5	Add/Less: Adjustments					
6	Opening Gross Block as per IGAAP					
7	Total Additions as per books (G= 3 - 5)					
8	Less: Additions pertaining to other Stages (give Stage wise breakup)					
9	Net Additions pertaining to instant project/Unit/Stage					
10	Less: Exclusions (items not allowable / not claimed)					
11	Net Additional Capital Expenditure Claimed (on accrual basis)					
12	Less: Un-discharged Liabilities					
13	Add: Discharges of un-discharged liabilities, corresponding to admitted assets/works					
14	Net Additional Capital Expenditure Claimed (on cash basis)					

Note: Reason for exclusion of any expenditure shall be given in clear terms.

(Petitioner)

Statement showing items/assets/works claimed under Exclusions:

Name of the Petitioner _____
Name of the Generating Station _____
COD _____

S. No.	Head of Work/ Equipment	ACE Claimed under Exclusion				Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	
(1)	(2)	(3)	(4)	(5=3-4)	(6)	(7)

Note: 1. Exclusions claimed on assets not allowed in Tariff should be supported by the specific reference of Commission Order date, Petition No., amount disallowed, etc.
2. For inter unit transfer, nature of transfer i.e. temporary or permanent should be mentioned. It is to be certified that exclusion sought in receiving station only and not in sending station or in both the station.

(Petitioner)

Name of the Petitioner _____
Name of the Generating Station _____

Statement of Capital cost
(To be submitted for relevant dates and year wise)

(Amount in Rs. Lakh)

S. No.	Particulars	As on relevant date.		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
(1)	(2)	(3)	(4)	(5)
A	a) Opening Gross Block Amount as per books			
	b) Amount of IDC in A(a) above			
	c) Amount of FC in A(a) above			
	d) Amount of FERV in A(a) above			
	e) Amount of Hedging Cost in A(a) above			
	f) Amount of IEDC in A(a) above			
B	a) Addition in Gross Block Amount during the period (Direct purchases)			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Addition in Gross Block Amount during the period (Transferred from CWIP)			
	b) Amount of IDC in C(a) above			

S. No.	Particulars	As on relevant date.		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
(1)	(2)	(3)	(4)	(5)
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			
	e) Amount of Hedging Cost in C(a) above			
	f) Amount of IEDC in C(a) above			
D	a) Deletion in Gross Block Amount during the period			
	b) Amount of IDC in D(a) above			
	c) Amount of FC in D(a) above			
	d) Amount of FERV in D(a) above			
	e) Amount of Hedging Cost in D(a) above			
	f) Amount of IEDC in D(a) above			
E	a) Closing Gross Block Amount as per books			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			

Note:

1. Relevant date/s means date of COD of unit/s/station and financial year start date and end date

(Petitioner)

PART-II**FORM- 9F**

Name of the Petitioner _____

Name of the Generating Station _____

Statement of Capital Woks in Progress
(To be submitted for relevant dates and year wise)

(Amount in Rs. Lakh)

S. No.	Particulars	As on relevant date.		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
(1)	(2)	(3)	(4)	(5)
A	a) Opening CWIP as per books			
	b) Amount of IDC in A(a) above			
	c) Amount of FC in A(a) above			
	d) Amount of FERV in A(a) above			
	e) Amount of Hedging Cost in A(a) above			
	f) Amount of IEDC in A(a) above			
B	a) Addition in CWIP during the period			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Transferred to Gross Block Amount during the period			
	b) Amount of IDC in C(a) above			
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			
	e) Amount of Hedging Cost in C(a) above			
	f) Amount of IEDC in C(a) above			

S. No.	Particulars	As on relevant date.		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
(1)	(2)	(3)	(4)	(5)
D	a) Deletion in CWIP during the period			
	b) Amount of IDC in D(a) above			
	c) Amount of FC in D(a) above			
	d) Amount of FERV in D(a) above			
	e) Amount of Hedging Cost in D(a) above			
	f) Amount of IEDC in D(a) above			
E	a) Closing CWIP as per books			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			

Note:

1. Relevant date/s means date of COD of unit/s/station and financial year start date and end date

(Petitioner)

Financing of Additional Capitalisation

Name of the Petitioner
 Name of the Generating Station
 Date of Commercial Operation

(Amount in Rs. Lakh)

Financial Year (Starting from COD) ¹	Actual					Admitted				
	Year 1	Year 2	Year 3	Year 4	Year 5 & So on	Year 1	Year 2	Year 3	Year 4	Year 5 & So on
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Amount Capitalized in Work/Equipment										
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan ²										
Equity										
Internal Resources										
Others (Pl. specify)										
Total										

Note:

1. Year 1 refers to Financial Year of COD and Year 2, Year 3 etc. are the subsequent financial years respectively.
2. Loan details for meeting the additional capitalisation requirement should be given as per FORM-7 or 8 whichever is relevant.

(Petitioner)

Calculation of Depreciation

Name of the Petitioner
Name of the Generating Station

(Amount in Rs Lakh)

S. No.	Name of the Assets ¹	Gross Block as on 31.03.2019 or as on COD, whichever is later and subsequently for each year thereafter upto 31.03.2024	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.2024
(1)	(2)	(3)	(4)	(5= Col.3 X Col.4)
1	Land*			
2	Building			
3	and so on			
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
	TOTAL			
	Weighted Average Rate of Depreciation (%)			

*Provide details of Freehold Land, Leasehold Land and Land under reservoir separately

Note:

1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)

Statement of Depreciation

Name of the Petitioner
Name of the Generating Station

(Amount in Rs Lakh)

S. No.	Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Opening Capital Cost						
2.	Closing Capital Cost						
3.	Average Capital Cost						
4.	Freehold land*						
5.	Rate of depreciation						
6.	Depreciable value						
7.	Balance useful life at the beginning of the period						
8.	Remaining depreciable value						
9.	Depreciation (for the period)						
10.	Depreciation (annualized)						
11.	Cumulative depreciation at the end of the period						
12.	Less: Cumulative depreciation adjustment on account of un-discharged liabilities deducted as on 01.04.2009						
13.	Less: Cumulative depreciation adjustment on account of de-capitalisation						
14.	Net Cumulative depreciation at the end of the period						

1. In case of details of FERV and AAD, give information for the applicable period.

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Loan-1						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan-2						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan-3 and so on						

Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Total Loan						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Interest on loan						
Weighted average Rate of Interest on Loans						

Note:

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

(Petitioner)

Calculation of Interest on Normative Loan

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Gross Normative loan – Opening						
2.	Cumulative repayment of Normative loan upto previous year						
3.	Net Normative loan – Opening						
4.	Add: Increase due to addition during the year / period						
5.	Less: Decrease due to de-capitalisation during the year / period						
6.	Less: Decrease due to reversal during the year / period						
7.	Add: Increase due to discharges during the year / period						
8.	Net Normative loan - Closing						
9.	Average Normative loan						
10.	Weighted average rate of interest						
11.	Interest on Loan						

(Petitioner)

PART-II
Form -13B

Tariff Regulations 2019-24

Calculation of Interest on Working Capital

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	O & M Expenses						
2	Maintenance Spares						
3	Receivables						
4	Total Working Capital						
5	Rate of Interest						
6	Interest on Working Capital						

(Petitioner)

PART II
FORM- 13C

Non-Tariff Income

Name of the Hydro Asset: _____

S.No.	Parameters	Existing 2018-19	2019- 20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Income from rent of land or buildings						
2.	Income from sale of scrap						
3.	Income from advertisements						

Note: To be submitted at the time of truing up

(Petitioner)

Incidental Expenditure during Construction

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs Lakh)

S. No.	Parameters	Upto Schedule COD	Upto Actual/Anticipated COD
(1)	(2)	(3)	(4)
A	Expenses:		
1.	Employees' Benefits Expenses		
2.	Finance Costs		
3.	Water Charges		
4.	Communication Expenses		
5.	Power Charges		
6.	Depreciation		
7.	Other Office and Administrative Expenses		
8.	Others (Please Specify Details)		
9.	Other pre-Operating Expenses		
		
B	Total Expenses		
10.	Less: Income from sale of tenders		
11.	Less: Income from guest house		
12.	Less: Income recovered from Contractors		
13.	Less: Interest on Deposits		
		

(Petitioner)

PART-II
FORM- 14

Draw Down Schedule for Calculation of IDC & Financing Charges

Name of the Petitioner

Name of the Generating Station

S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Loans									
1.1	Foreign Loans									
1.1.1	Foreign Loan₁									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.2	Foreign Loan₂									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.3	Foreign Loan₃									
	Draw down Amount									
	IDC									

S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.4	--									
	--									
	--									
1.1	Total Foreign Loans									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
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	---	---		---	---		---	---	

S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
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									
	Foreign Exchange Rate Variation									
	Hedging Cost									
2	Equity									
2.1	Foreign equity drawn									
2.2	Indian equity drawn	---	---		---	---		---	---	

S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Total equity deployed									

Note:

1. Drawl of debt and equity shall be on pari-passu basis quarter wise to meet the commissioning schedule. Drawl of higher equity in the beginning is permissible
2. Applicable interest rates including reset dates used for above computation may be furnished separately
3. In case of multi-unit project details of capitalisation ratio used to be furnished.
4. Detailed calculation of IDC (Actual drawl and repayment dates and amount, rates of interest, etc.) should be furnished.

(Petitioner)

PART-II
FORM- 14A

Actual Cash Expenditure

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

Particulars	Quarter-I	Quarter-II	Quarter-III	Quarter-n (DOCO)
(1)	(2)	(3)	(4)	(5)
Expenditure towards Gross Block				
Add: Expenditure towards CWIP				
Add: Capital Advances, if any				
Less: Un-discharged liabilities (included above)				
Add/Less: Others				
Payment to contractors / suppliers towards capital assets				
Cumulative payments				

Note: If there is variation between payment and fund deployment justification need to be furnished

(Petitioner)

Design energy and peaking capability (month wise)- ROR with Pondage/Storage type new stations

Name of the Petitioner _____

Name of the Generating Station _____

Generating Company.....			
Name of Hydro-Electric Generating Station:			
Installed Capacity: No of Units X MW=			
Month		Design Energy* (MUs)	Designed Peaking Capability (MW)*
April	I		
	II		
	III		
May	I		
	II		
	III		
June	I		
	II		
	III		
July	I		
	II		
	III		
August	I		
	II		
	III		
September	I		
	II		
	III		

October	I		
	II		
	III		
November	I		
	II		
	III		
December	I		
	II		
	III		
January	I		
	II		
	III		
February	I		
	II		
	III		
March	I		
	II		
	III		
Total			
*As per DPR/TEC of CEA dated.....			
Note :			
Specify the number of peaking hours for which station has been designed.			

(Petitioner)

Design energy and MW Continuous (month wise) –ROR type stations

Name of the Petitioner

Name of the Generating Station

Generating Company.....			
Name of Hydro-Electric Generating Station:			
Installed Capacity: No of units X MW=			
Month		Design Energy* (MUs)	MW continuous*
April	I		
	II		
	III		
May	I		
	II		
	III		
June	I		
	II		
	III		
July	I		
	II		
	III		
August	I		
	II		
	III		
September	I		
	II		
	III		

(Petitioner)

October	I		
	II		
	III		
November	I		
	II		
	III		
December	I		
	II		
	III		
January	I		
	II		
	III		
February	I		
	II		
	III		
March	I		
	II		
	III		
Total			
*As per DPR/TEC of CEA dated.....			

Statement of Liability Flow

Name of the Petitioner

Name of the Generating Station

Party	Asset / Work	Year of actual capitalisation	Original Liability	Liability as on 31.03.2019	Discharges (Year wise)	Reversal (Year wise)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
a) For assets eligible for normal RoE						
b) For assets eligible for RoE at weightage average rate of interest on loan						

(Petitioner)

Operation and Maintenance Expense

In case of the hydro generating stations declared under commercial operation on or after 1.4.2019

Total capital expenditure up to cutoff date (a)	
R&R Expenditure (b)	
IDC & IEDC (c)	
Capital cost considered for O&M expense(d)= (a)-(b)-(c)	
First year annualize O&M expenses @ 3.50% of above (e) = 3.50% of (d)	
O&M expense for next year @ 4.77% of above (f) = 4.77% of (e)	
Additional O&M expenses due to 7 th Pay Commission Wage Revision	
Additional O&M expenses due to Minimum Wage Revision	
Additional O&M expenses due to Goods and Services Tax (GST)	

Note: Additional O&M expenses with supporting documents and computations to be provided for respective years of Tariff Period.

(Petitioner)

Details of Statutory Charges (If applicable)

Name of the Petitioner _____
Name of the Generating Station _____

Particulars	Unit Rate	No of Units	Amount Claimed
(1)	(2)	(3)	(4)
Electricity Duty			
Water Cess			
.....			

(Petitioner)

PART II
FORM 19

Summary of issue involved in the petition

1.	Petitioner:	
2.	Subject	
3.	Prayer: (1)... (2)... (3)... ...	
4	Respondents	
	Name of Respondents:	
	a.	
	b.	
	c.	
5.	Project Scope	IC DE FEHS AUX NAPAF
	Cost	Sanction Cost Latest RCE
	Commissioning	Unit/Station COD
	Claim	
	AFC	
	Capital cost	
	Initial spare	
	NAPAF	
	Design	
	Energy	
	Any Specific	

**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF
PART-III
Annexure-I**

INDEX

PART-III

**Check list of Forms and other information/ documents for tariff filing for
Transmission System & Communication System**

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 1	Summary of Tariff	
FORM- 1A	Summary of Asset level cost	
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	
FORM-3	Normative parameters considered for tariff computations	
FORM- 4	Abstract of existing transmission assets/ elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	
FORM- 4A	Statement of Capital cost	
FORM- 4B	Statement of Capital Works in Progress	
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	
FORM-5	Element wise Break-up of Project/ Asset/Element Cost for Transmission System or Communication System	
FORM-5A	Break-up of Construction/Supply/Service packages	
FORM-5B	Details of all the assets covered in the project	
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	
FORM- 7	Statement of Additional Capitalisation after COD	
FORM- 7A	Financing of Additional Capitalisation	
FORM- 7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	
FORM- 8	Calculation of Return on Equity	
FORM-8A	Details of Foreign Equity	
FORM-9	Details of Allocation of corporate loans to various transmission elements	
FORM-9A	Details of Project Specific Loans	
FORM-9B	Details of Foreign loans	
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	
FORM-9D	Loans in Foreign Currency	
FORM-9E	Calculation of Interest on Normative Loan	
FORM- 10	Calculation of Depreciation Rate on original project cost	
FORM- 10A	Statement of Depreciation	
FORM- 10B	Statement of De-capitalisation	

Form No.	Title of Tariff Filing Forms (Transmission& Communication System)	Tick
FORM- 11	Calculation of Interest on Working Capital	
FORM- 12	Details of time over run	
FORM- 12A	Incidental Expenditure during Construction	
FORM- 12B	Calculation of IDC & Financing Charges	
FORM- 13	Details of Initial spares	
FORM- 14	Non-Tariff Income	
FORM- 15	Summary of issue involved in the petition	
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.	
Other Information/ Documents		
S. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication 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/PPA with the beneficiaries, if any	
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
9.	BBMB is maintaining the records as per the relevant applicable Acts.	

Form No.	Title of Tariff Filing Forms (Transmission& Communication System)	Tick
	Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify the formats suitably as per available information to them for submission of required information for tariff purpose	
10.	Any other relevant information, (Please specify)	

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.

PART-III**FORM-1****Summary of Tariff****Name of the Transmission Assets** _____

S.No.	Particulars	Form No.	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Depreciation						
2	Interest on Loan						
3	Return on Equity						
4	Interest on Working Capital						
5	O & M Expenses						
	Total AFC						

Note: This Form is a summary form and the Data to this form should flow from other base forms.

(Petitioner)

**PART-III
FORM-1A**

Summary of Asset Level Cost

Name of the Transmission Assets _____

(Amount in Rs. Lakh)

A) Summary of Capital Cost, Means of Finance of the Asset									
Particular	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost						
	<i>as per IA</i>	<i>As per RCE</i>	<i>As on COD/01-04- 2019</i>	<i>2019-20 (Actual/Pr ojected)</i>	<i>2020-21 (Actual/Pr ojected)</i>	<i>2021-22 (Actual/Pr ojected)</i>	<i>2022- 23(Actual/ Projected)</i>	<i>2023- 24(Actual/ Projected)</i>	<i>as on 31.03.2024</i>
Land (Freehold Land)									
Land (Leasehold)									
Building & Civil Works									
Transmission Line									
Sub-Station									
PLCC									
Total Capital Cost as per Books									
Less: Liability									
Add: Discharge of liability									
Total Capital cost									
Equity									
Debt									

Note: This Form is a summary form and the Data to this from should flow from other base forms.

PART-III

FORM-2

Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for instant asset

Name of the Transmission Asset: _____

1. Transmission Lines:

S. No.	Name of Line	Type of Line AC/HV DC	S/C or D/C	No. of Sub- Conductors	Voltage Level kV	Line Bays	Line Reactor(Inc luding Switchable Reactor)	Line length km	Date of Commercial Operation	Covered in the present Petition	
										Yes/No	If No, Petition No.
1											
2											
3											
-											
-											

Summary:

O& M Expenses for the Transmission lines covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
Normative rate of O&M as per Regulation (Rupees in Lakh)					
Length in km					
O&M Claimed (Rupees in Lakh)					

2. Substations:

S.N o.	Name of Sub-station	Type of Substation (Greenfield/ Brownfield)/ GIS/HVDC terminal/HVD C Back to Back	Voltage level kV	No. of transform ers / Reactors/S VC etc. (with capacity)	No. of Bays				MVA Capacity				Date of Commercial operation	Covered in the present Petition	
					765 kV	400kV	220 kV	132 kV & Below	765 kV	400 kV	220 kV	132 kV & Below		Yes/No	If No, Petition No.
1															
2															
3															
-															
-															

Summary:

O& M Expenses for the Substations covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
Normative rate of O&M as per Regulation (Rupees in Lakh)					
No. of units					
O&M Claimed (Rupees in Lakh)					

Note 1. Number of bays is inclusive of line bays, ICT bays, reactor bays etc. Each ICT bays, line bays, reactor bays shall be considered separately for purpose of O&M expenses.

2. The MVA Capacity shall exclude the capacity of reactor, FSE, Stat Com

3. Communication System:

S. No.	Name of Communication System	Type of Communication System – Communication System under ULDC/ SCADA/ WAMS/Fibre Optic Communication System/RTU/PABX/PMU etc	Length of OPGW links	No. of RTU	No. of PMU	Date of Commercial operation	Capital Cost upto Cutoff date(Original Project cost)	Covered in the present Petition	
								Yes/No	If No, Petition No.
1									
2									
3									
-									

Summary

O& M Expenses for the Communication System covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses as per regulations					
Actual O&M Expense (Rupees in Lakh)					
The original project cost / Asset related to the communication system					

Note: The O&M expenses as per regulation shall be worked on based on estimated project cost. The actual O&M expenses to be provided at the time of true up.

4) Summary of O&M Expenses claim

(Rupees in Lakh)

S. No	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	A) Normative O&M					
1	Transmission line					
2	Substation					
3	Communication System					
	Total Normative O&M					
	B) O&M Claimed under Regulation 35 (3)(C)					
1	Security Expenses					
2	Actual Capital Spare consumed					
3	Total O&M					

Note: The security expenses and Capital Spares are to be submitted on estimated basis for the purpose of O&M expenses. In case of additional security deployed, the petitioner shall indicate the same. The actual security and Capital Spares expenses to be provided at the time of true up

(Petitioner)

PART-III

FORM-3

Normative Parameters considered for Tariff Computation

Name of the Transmission Assets _____

Particulars	Unit	Year Ending March					
		Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Rate of Return on Equity	%						
Base Rate of Return on Equity on Additional Capitalization after Cut-off Date ¹	%						
Tax Rate	%						
Effective Tax Rate ²	%						
Target Availability	%						
Normative O&M per km	Rs. Lakh						
Normative O&M per Bay	Rs. Lakh						
Normative O&M per MVA	Rs. Lakh						
Spares for WC as % of O&M	%						
Receivables in Days for WC	Days						
Bank Rate as on first day of financial year ³	%						
Lapsed life as on 01.04.2019 and beginning of every year(in completed years)	No. of years						

1. The additional capitalization on account of Change-in-Law to be excluded and to be equivalent to Weighted Average Rate of Loan in accordance with first Proviso to Regulation 30.

2. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 31 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.

3. For Tariff Petition, it should be 1.4.2019, while for True-up Petition, it should be 1st April of the respective financial years.

(Petitioner)

Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole

Name of the Transmission Project: _____

(Amount in Rs. Lakh)

A) Details of All the Asset Covered under the Scope of the Project						
Asset No. & Asset Name description	Actual COD	COD considered for Tariff	Effective COD for the project as whole (Refer C)	Weighted Average useful life of the project (Refer D)	Lapsed useful Life of the project as on 01-04-2019 (Refer E)	Balance useful Life of the Project as on 01.04.2019 (Refer E)

B) Details as on 01-04-2019 for determination of Single Tariff for the Projects Commissioned prior to 01.04.2019							
Particulars as on 31-03-2019 after true up of 2014-19 period.	Asset 1	Asset 2	Asset 3	Asset 4	and so on	Total as on 01.04.2019 for the project as whole	
a	b	c	d	e	f	g=(b+c+d+e+f)	
Capital Cost as on 31.03.2019							
Cumulative Depreciation as on 31-03-2019							
Debt Equity Ratio as on 31.03.2019							
Gross Equity for Normative ROE as on 31.03.2019							
Gross Loan as on 31.03.2019							
Cumulative Re-payment of Loan as on 31.03.2019							

Asset No.	Asset 1	Asset 2	Asset 3	Asset 4	and so on	Total
a	b	c	d	e	f	$g=(b+c+d+e+f)$
1) Actual COD of the Asset.						
2) COD considered for tariff purpose ⁽ⁱ⁾						
3) No. of days between the COD of the asset considered for tariff and the COD of the Project ^{(ii)&(iii)}						
4) True up Capital Cost as on 31-03-2019 (in Lakh)						
5) Weight of the Cost of an asset (in %) ^(iv)						
6) Weighted days = (3x5)						
7) Effective COD = (i.e. COD of the Project - Total Weighted days)						

i) COD of the Asset considered for tariff: This normally refers the actual COD of the project. In case commission had admitted clubbing of the assets if any in previous tariff period, then the COD considered for such clubbed assets for tariff purpose has to be considered here (eg. Notional COD)

ii) No. of days from the COD of the Project: It refers the distance between the COD considered for tariff for the individual Asset and the COD of the Project. This has been computed by (COD of the project - COD of the individual asset)

iii) COD of the Project = The COD of the last asset of the Project.

iv) Weight of the Cost of an asset = It refers the proportion (i.e. weight) of individual asset's cost on comparing the Total capital cost of the project. It has to be computed by (Trued up cost of concerned asset as on 31.03.2019 / Total of true up cost of all the assets) x100

v) Weighted days: This is the product of the Weight of the Cost of an asset and the distance from its COD to the COD of the project.

ii) No. of days from the COD of the Project: It refers the distance between the COD considered for tariff for the individual Asset and the COD of the Project. This has been computed by (COD of the project - COD of the individual asset)

iv) **Weight of the Cost of an asset** = It refers the proportion (i.e. weight) of individual asset's cost on comparing the Total capital cost of the project. It has to be computed by $(\text{Trued up cost of concerned asset as on 31.03.2019} / \text{Total of true up cost of all the assets}) \times 100$

v) **Weighted days:** This is the product of the Weight of the Cost of an asset and the distance from its COD to the COD of the project.

D) Weighted Average useful Life of the Project as whole								
Particulars	Capital Cost as on 01-04-2019 after true up of 2014-19					Combined Cost	Useful life/ Extended life	Weighted Cost
	Asset 1	Asset 2	Asset 3	Asset 4	and so on			
a	b	c	d	e	f	$g=(b+c+d+e+f)$	h	i = (g)x(h)
Freehold Land							0	
Leasehold Land							25	
Building & Other Civil Works							25	
Transmission Line							35	
Sub-Station Equipment							25	
PLCC							15	
and so on								
Total								
Weighted Average life = Total Weighted Cost/Total Combine Cost (Rounded off to get complete year)								Years

E) Lapsed weighted average useful life of the project & Balance weighted average Useful life

This refers to the No. of completed years from the Effective COD till the last day of the previous tariff period (i.e. 31.03.2019)

i) Effective COD		
ii) Last day of the previous tariff control period	3/31/2019	
iii) No. of Completed years lapsed as on 01.04.2019 (ii)-(i)		
iv) Remaining useful life (in year) (WAL-lapsed year)		

Note: 1) The petitioner has to maintain the identity of the individual assets. In consolidation petitions, the petitioner has to maintain and provide the details of individual assets, like description, actual COD, effective COD, cut off date, admitted capital cost, O&M Expenses etc. The petitioner has to make all claims of additional capital expenditure or de-capitalization for the project, along with Auditor certificate by clearly mentioning the individual assets to which the claim has been made. Accordingly the relevant tariff forms should show the individual asset wise breakup. 2) This form is required to be submitted when the project is commissioned prior to 01.04.2019 (i.e. the last element of the project commissioned prior to 01.04.2019. 3) The No. of completed year can be arrived by the excel function viz. YEAR FRAC(31-03-2019, Effective COD) and ignore the fraction if any from the result.

(Petitioner)

PART-III
FORM- 4A

Statement of Capital cost

(To be given for relevant dates and year wise)

Name of the Transmission Asset: _____

(Amount in Rs Lakh)

A) Capital Cost		As on relevant date. ¹		
	Particulars	Accrual Basis	Un-discharged Liabilities	Cash Basis
1	a) Opening Gross Block Amount as per books			
	b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	(i) (ii) ... (iii)... (iv) ...		
	c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above			
2	a) Addition in Gross Block Amount during the period			
	b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	(i) (ii) ... (iii)... (iv) ...		
	c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above			
3	a) Closing Gross Block Amount as per books			
	b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	(i) (ii) ... (iii)... (iv) ...		
	c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above			

(Amount in Rs. Lakh)

B) Flow of liability for the Asset						
Particulars	As on COD/01-04-2019	2019-20	2020-21	2021-22	2022-23	2023-24
1. Opening balance of liability ²						
2. Add: Liability from ACE ³						
3. Discharge of liability by payment and claimed as ACE ⁴						
4. Reversal/ cancelation (to be entered) ⁵						
5. Closing Balance of Admitted liability ⁶						

1. Relevant date/s means date of COD of transmission element/s or Communication system and financial year start date and end date
2. In case of new asset it should flow from Form 5 and in case of existing asset it should flow from admitted liability as on 31.03..2019.
3. It refers to the liability included in the addition into gross block as on last day of the concerned year as mentioned in Form 7 of the concerned year.
4. It refers the actual payment of capital liability which was admitted by Commission as on 31.03.2019 and/or the liability included in the COD cost and /or the liability included in the ACE of previous years. (eg. If any payment is made during 2021-22 towards the un-discharged liability)
5. It refers the liability included in the Gross Block but reversed or cancelled due to any reason. (eg. The liability no more payable due to non-fulfillment of any condition of the contractor, book adjustment etc.)
6. It refers the closing balance of capital liability (i.e. as on 31st march of the concerned year and it will be the opening balance as on 01st April of the next year.
7. The balances mentioned in flow of liability in Table B above and the liability as on relevant date as mentioned in Table A above should match.
8. If any of the project asset does not required to be consolidated due to any reason, the reason has to be explained and the opening position of those assets has to be shown in the format mentioned Table B above.

(Petitioner)

PART-III
FORM- 4B

Statement of Capital Works in Progress
(To be given for relevant dates and year wise)

Name of the Transmission Asset: _____

(Amount in Rs lakh)

	Particulars	As on relevant date. ¹		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening CWIP Amount as per books			
	b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A (a) above	(i) (ii) ... (iii)... (iv) ...		
B	a) Addition/Adjustment in CWIP Amount during the period			
	b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B (a) above	(i) (ii) ... (iii)... (iv) ...		
C	a) Capitalization/Transfer to Fixed asset of CWIP Amount during the period			
	b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C (a) above	(i) (ii) ... (iii)... (iv) ...		
D	a) Closing CWIP Amount as per books			
	b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost in D (a) above	(i) (ii) ... (iii)...		

Note: Relevant date/s means date of COD of transmission element/s and financial year start date and end date

(Petitioner)

PART-III
FORM- 4C

Abstract of Capital Cost Estimates and Schedule of Commissioning for New Project/Element

Name of the Transmission Asset: _____

New Projects Capital Cost Estimates

Board of Director/ Agency approving the Capital cost estimates:		
Date of approval of the Capital cost estimates:		
	Present Day Cost	Completed Cost
Price level of approved estimates	As of End of _____ Qtr. of the year _____	As on Scheduled COD of the transmission system/transmission element/ Communication System
Foreign Exchange rate considered for the Capital cost estimates		
Capital Cost excluding IDC, IEDC& FC		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Capital cost excluding IDC, FC, FERV & Hedging Cost (Rs. Lakh)		
IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs Lakh)		
Total IDC, FC, FERV & Hedging Cost (Rs Lakh)		
Rate of taxes & duties considered		
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs Lakh)		
Capital cost Including IDC, IEDC& FC (Rs Lakh)		
Schedule of Commissioning		

COD of transmission system 1 /transmission element 1/ Communication System 1	
COD of transmission system 1/ transmission element 2/ Communication System 2	

COD of last transmission system /transmission element / Communication System	

Note:

1. Copy of approval letter by the Board duly certified by the Company secretary should been closed
2. Details of Capital Cost are to be furnished as per FORM-5 or 5A as applicable
3. Details of IDC & Financing Charges are to be furnished as per FORM-12(B).

(Petitioner)

Part-III
FORM 5

Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System

Name of the Transmission Asset: _____

(Amount in Rs. Lakh)

S. No. (1)	Particulars (2)	Cost in Lakh									Variation between actual Cost and IA/RCE cost as on COD (8=(5-6+7)-(3 or 4))	Reasons for Variation 1 (9)	Un-Discharge Liabilities included in Col. 5 (10)	Admitted cost ⁷ (11)	Capital Work in Progress as per Books of Account as on COD (12)		
		As per Original Estimates (3)			As per Revised Cost Estimates (if any)(4)			Actual Capital Expenditure (Gross Block) as on COD as per Books of Account ^{3,4,5} (5)								The portion Capital cost included in col. 5 which is not eligible for transmission tariff (eg. Grant, other business etc. ³ (6)	Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date (7)
		Quantity	Rate	Estimated Cost	Quantity	Rate	Estimated Cost	Quantity	Rate	Gross Block of the asset							
A	TRANSMISSION LINE																
1	Preliminary works																
1.1	Design & Engineering																
1.2	Preliminary Investigation, Right of way, forest clearance, PTCC, general civil works etc.																
1.3	Total Preliminary works (1.1+1.2)																
2	Transmission Lines material																
2.1	Towers Steel																
2.2	Conductor																

S. No. (1)	Particulars (2)	Cost in Lakh									Variation between actual Cost and IA/RCE cost as on COD (8=(5-6+7)-(3 or 4))	Reasons for Variation ¹ (9)	Un-Discharge Liabilities included in Col. 5 (10)	Admitted cost ⁷ (11)	Capital Work in Progress as per Books of Account as on COD (12)		
		As per Original Estimates (3)			As per Revised Cost Estimates (if any)(4)			Actual Capital Expenditure (Gross Block) as on COD as per Books of Account ^{3,4,5} (5)								The portion Capital cost included in col. 5 which is not eligible for transmission tariff (eg. Grant, other business etc. ⁶ (6)	Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date (7)
		Quantity	Rate	Estimated Cost	Quantity	Rate	Estimated Cost	Quantity	Rate	Gross Block of the asset							
2.3	Earth Wire																
2.4	Insulators																
2.5	Hardware Fittings																
2.6	Conductor & Earth wire accessories																
2.7	Spares																
2.8	Erection, Stringing & Civil works including foundation																
2.9	Total Transmission Lines material (2.1+2.2+2.3+2.4+2.5+2.6+2.7+2.8)																
3	Taxes and Duties																
3.1	Custom Duty																
3.2	Other Taxes & Duties																
3.3	Total Taxes & Duties (3.1+3.2)																
3.4	Total - Transmission lines (1.3+2.9+3.3)																

S. No. (1)	Particulars (2)	Cost in Lakh										Variation between actual Cost and IA/RCE cost as on COD (8=(5-6+7)-(3 or 4))	Reasons for Variation ¹ (9)	Un-Discharge Liabilities included in Col. 5 (10)	Admitted cost ⁷ (11)	Capital Work in Progress as per Books of Account as on COD (12)	
		As per Original Estimates (3)			As per Revised Cost Estimates (if any)(4)			Actual Capital Expenditure (Gross Block) as on COD as per Books of Account ^{3,4,5} (5)			The portion Capital cost included in col. 5 which is not eligible for transmission tariff (eg. Grant, other business etc. ⁶ (6)						Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date (7)
		Quantity	Rate	Estimated Cost	Quantity	Rate	Estimated Cost	Quantity	Rate	Gross Block of the asset							
B.	SUBSTATIONS																
4	Preliminary works & land																
4.1	Design & Engineering																
4.2	Land ²																
4.3	Site preparation																
4.4	Total Preliminary works & land (4.1+4.2+4.3)																
5	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																
5.6	Total Civil Works (5.1+5.2+5.3+5.4+5.5)																

S. No. (1)	Particulars (2)	Cost in Lakh									Variation between actual Cost and IA/RCE cost as on COD (8=(5-6+7)-(3 or 4))	Reasons for Variation 1 (9)	Un-Discharge Liabilities included in Col. 5 (10)	Admitted cost 7 (11)	Capital Work in Progress as per Books of Account as on COD (12)		
		As per Original Estimates (3)			As per Revised Cost Estimates (if any)(4)			Actual Capital Expenditure (Gross Block) as on COD as per Books of Account ^{3,4,5} (5)								The portion Capital cost included in col. 5 which is not eligible for transmission tariff (eg. Grant, other business etc. ⁶ (6)	Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date (7)
		Quantity	Rate	Estimated Cost	Quantity	Rate	Estimated Cost	Quantity	Rate	Gross Block of the asset							
6	Substation Equipment																
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																
6.1	Grounding System																
6.11	Structure for switchyard																
6.12	Total Substation Equipment (Sum of 6.1 to 6.11)																

S. No. (1)	Particulars (2)	Cost in Lakh									Variation between actual Cost and IA/RCE cost as on COD (8=(5-6+7)-(3 or 4))	Reasons for Variation 1 (9)	Un-Discharge Liabilities included in Col. 5 (10)	Admitted cost ⁷ (11)	Capital Work in Progress as per Books of Account as on COD (12)		
		As per Original Estimates (3)			As per Revised Cost Estimates (if any)(4)			Actual Capital Expenditure (Gross Block) as on COD as per Books of Account ^{3,4,5} (5)								The portion Capital cost included in col. 5 which is not eligible for transmission tariff (eg. Grant, other business etc. ⁶ (6)	Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date (7)
		Quantity	Rate	Estimated Cost	Quantity	Rate	Estimated Cost	Quantity	Rate	Gross Block of the asset							
7	Spares																
8	Taxes and Duties																
8.1	Custom Duty																
8.2	Other Taxes & Duties																
8.3	Total Taxes & Duties (8.1+8.2+8.3)																
8.4	Total (Sub-station) (4.4+5.6+6.12+7+8.3)																
C	Communication System																
9.1	Preliminary Works																
9.2	Communication System equipment's																
9.3	Taxes and Duties																
9.4	Total (Communication System) (9.1+9.2+9.3)																
10	Cost of Plant & Machinery (3.4+8.4+9.4)																

S. No. (1)	Particulars (2)	Cost in Lakh									Variation between actual Cost and IA/RCE cost as on COD (8=(5-6+7)-(3 or 4))	Reasons for Variation 1 (9)	Un-Discharge Liabilities included in Col. 5 (10)	Admitted cost ⁷ (11)	Capital Work in Progress as per Books of Account as on COD (12)		
		As per Original Estimates (3)			As per Revised Cost Estimates (if any)(4)			Actual Capital Expenditure (Gross Block) as on COD as per Books of Account ^{3,4,5} (5)								The portion Capital cost included in col. 5 which is not eligible for transmission tariff (eg. Grant, other business etc. ⁶ (6)	Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date (7)
		Quantity	Rate	Estimated Cost	Quantity	Rate	Estimated Cost	Quantity	Rate	Gross Block of the asset							
11	Construction and pre-commissioning expenses																
11.1	Site supervision & site administration .etc.																
11.2	Tools and Plants																
11.3	construction Insurance																
11.4	Total Construction and pre commissioning expenses (11.1+11.2+11.3)																
12	Overheads																
12.1	Establishment																
12.2	Audit & Accounts																
12.3	Contingency																
12.4	Other overheads																
12.5	Total Overheads (12.1+12.2+13.3+12.4)																

S. No. (1)	Particulars (2)	Cost in Lakh									Variation between actual Cost and IA/RCE cost as on COD (8=(5-6+7)-(3 or 4))	Reasons for Variation 1 (9)	Un-Discharge Liabilities included in Col. 5 (10)	Admitted cost ⁷ (11)	Capital Work in Progress as per Books of Account as on COD (12)		
		As per Original Estimates (3)			As per Revised Cost Estimates (if any)(4)			Actual Capital Expenditure (Gross Block) as on COD as per Books of Account ^{3,4,5} (5)								The portion Capital cost included in col. 5 which is not eligible for transmission tariff (eg. Grant, other business etc. ⁶ (6)	Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date (7)
		Quantity	Rate	Estimated Cost	Quantity	Rate	Estimated Cost	Quantity	Rate	Gross Block of the asset							
13	IDC, FC, FERV & Hedging Cost																
13.1	Interest During Construction (IDC)																
13.2	Financing Charges (FC)																
13.3	Foreign Exchange Rate Variation (FERV)																
13.4	Hedging Cost																
13.5	Total of IDC, FC, FERV & Hedging Cost (13.1+13.2+13.3+13.4)																
14	Capital cost including IDC, FC, FERV & Hedging Cost (10+11.4+12.5+13.5)																

B) Summary of Capital Cost as on COD										
Particular	Plant & Machinery Cost including initial spare but excluding IDC&IEDC	Initial Spare capitalised	IEDC capitalised	IDC capitalised	Loan FERV	Gross Block as per books of Account as on COD	Deduction from Gross Block ³	Gross block meant for tariff as on COD / 01.04.2019 (after deductions)	Un-discharged liability included in 8	Capital Cost on Cash basis for tariff as on COD / as on 01-04-2019
	1	2	3	4	5	6=(1+3+4+5)	7	8=(6-7)	9	10=(8-9)
Land (Freehold Land)										
Land (Leasehold)										
Building & Civil Works										
Transmission Line										
Sub-Station										
PLCC										
Total Capital Cost as per Books of Account										
Less: Un-discharged liabilities										
Total Capital Cost Claimed for tariff										
% of IDC / IEDC on the base of (Plant & Machinery cost including initial spare as per Books of Account)										
Means of Finance										
Equity										
Debt										

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over- run was beyond the control of the transmission licensee.
2. Separate details of free hold/lease hold land should be submitted.
3. Deduction from Gross Block includes the Grant Received as on COD, Gross block as on COD which pertains to other business, Adjustment of excess initial spare etc.
4. The capital cost as per books of accounts and liability should be supported by Auditor Certificate.

(Petitioner)

Break-up of Construction/Supply/Service Packages

Name of the Transmission Asset: _____

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/ Departmentally/ Deposit Work, etc.	No. of bids received	Date of Award	Date of Start of work	Date of Completion of Work	Value of Award ² in (Rs. Lakh).	Firm or With Escalation in prices	Actual expenditure till the completion or up to COD whichever is earlier (Rs. Lakh)	Taxes & Duties and IEDC (Rs. Lakh)	IDC, FC, FERV & Hedging cost (Rs. Lakh)	Sub-Total (Rs. Lakh)

Note:

1 The scope of work in any package should be indicated in conformity of cost break-up in Form-5 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 separately along with the currency, the exchange rate and the date e.g. Rs. 800 Lakh. + US\$ 5m=Rs. 4300 Lakh. at US\$=Rs.70 as on say 01.04.2019.

(Petitioner)

Details of all the assets covered in the project

Name of the Transmission Project: _____

SCOD: _____

S. No.	Name of Asset	COD	Delay (in No. of in days)	Apportioned approved cost (Rs. Lakh)	Revised cost estimates, if applicable (Rs. Lakh)	Completed Cost (Rs. Lakh)	Covered in the present Petition	
							Yes/No	If No, Petition No.
1								
2								
3								
4								
5								

Total								

(Petitioner)

PART-III
FORM- 6

Actual Cash Expenditure and Financial Package upto COD

Name of the Transmission Asset: _____

A) Actual Cash Expenditure up to COD

(Rupees in Lakh)

Particulars	Quarter-I (Investment Approval)	Quarter- II	Quarter- III....	Quarter-n (SCOD)	Quarter-	Quarter-n (Actual COD)
Actual Payment to contractors/suppliers during the quarter						
Cumulative Cash payments at the end of the Quarter						
% of cumulative cash Payment on Total Payment up to Actual COD						

B) Financial package

	Financial Package as Approved		Financial Package as on COD		As Admitted on COD	
	Currency and Amount\$		Currency and Amount\$		Currency & Amount\$	
1	2	3	4	5	6	7
Loan-I	US \$	5m				
Loan-II						
and so on						
Total Loans						
Equity-						
Foreign						
Domestic						
Total Equity						
Debt : Equity Ratio						
Total Cost						
Add Cap.	Debt	Equity	Actual Debt	Actual equity	Debt	Equity
Add cap for Year-1						
Add cap for Year-2...						
Total Capital Cost with add cap.						

Note:

* Say Rs. 800 Lakh + US\$ 5m = Rs. 4300 Lakh including US\$5m at an exchange rate of US\$=Rs. 70.

For Example: US\$5m, etc.

\$ In case of foreign loans exchange rate considered on date of commercial operation.

(Petitioner)

Statement of Additional Capitalisation after COD

Name of the Transmission Asset: _____
COD _____

A) ACE for the year : _____ @ (Actual/Projected)								
Particulars	Addition into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards				Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose	Admitted Cost in final tariff ¹ (Rs Lakh)
		Grants Received (if any)	Asset pertaining to other business (If any)	Other Deduction (if any)	Less: Un-discharged liability included in (2-4-5)			
1	2	3	4	5	6	7	8=(2-3-4-5-6+7)	
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Building, Civil Work	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sub-Station	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

@ Repeat the above table for other years.

B) Regulation wise ACE claim on Cash basis						
Regulation No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Reg. 24	ACE within the original scope and upto the cut-off date.					
24 (1) (a)	Un-discharged liabilities recognized to be payable at a future date					
24 (1) (b)	Works deferred for execution					
24 (1) (c)	Procurement of initial capital spares					
24 (1) (d)	Liabilities to meet award of arbitration etc.					
24 (1) (e)	Change in law or compliance of any existing law					

B) Regulation wise ACE claim on Cash basis						
Regulation No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
24 (1) (f)	Force Majeure events					
Total under Regulation 24						
Reg. 25	ACE within the original scope and after the cut-off date					
25 (1) (a)	Liabilities to meet award of arbitration etc.					
25 (1) (b)	Change in law or compliance of any existing law					
25 (1) (d)	Liability for works executed prior to the cut-off date					
25 (1) (e)	Force Majeure events					
25 (1) (f)	Liability for works admitted by the Commission after the cut-off date					
Total under Regulation 25						
Reg. 26	ACE beyond the original scope:					
26 (1) (a)	Liabilities to meet award of arbitration etc.					
26 (1) (b)	Change in law or compliance of any existing law;					
26 (1) (c)	Force Majeure Events;					
26(1) (d)	Need for higher security and safety of the plant....					
Total under Regulation 26						
27 (4)	R&M for extension of life beyond the originally recognized useful life (with the consent of Long Term Customers)					
Total ACE claimed for tariff						
Total Admitted ACE during Final tariff ¹ .						

Note:

1. In case the true up, provide the ACE allowed in final tariff and enclose the copy of the tariff order(s).
2. Year wise details of the Work/Equipment proposed to be added after COD upto Cut-off Date/ beyond Cut- off Date has to be provided along with justification.
3. In case of de-capitalisation of assets details to be furnished in Form 10B.
4. The capital cost as per books of accounts and liability should be supported by Auditor Certificate

(Petitioner)

Financing of Additional Capitalisation

Name of the Transmission Asset: _____

(Amount in Rs. Lakh)

Financial Year (Starting from COD)	Actual/Projected					Admitted				
	Year 1	Year 2	Year 3	Year 4	Year 5 & So on	Year 1	Year 2	Year 3	Year 4	Year 5 & So on
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/Equipment										
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan										
Equity										
Internal Resources										
Others										
Total										

Note:

1. Year 1 refers to Financial Year of COD in case of new elements. For existing elements it is from 2019-20 and Year 2, Year 3 etc. are the subsequent financial years respectively.
2. Loan details for meeting the additional capitalisation requirement should be given as per FORM-9 or 9(A) whichever is relevant.

(Petitioner)

Statement of Additional Capitalisation claimed during five year before the end of the useful life of the Project

Name of the Transmission Asset: _____

COD _____

S. No.	Year	Work/Equipment added five years before the useful life	Amount capitalised /Proposed to be capitalized (Rs Lakh)	Justification for capitalisation proposed	Impact on life extension
1	2	3	4	5	6
1					
2					
3					
4					
5					

Note:

- Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes
- *Five years before the completion of useful life.

(Petitioner)

Calculation of Return on Equity at Normal Rate

Name of the Transmission Asset: _____

(Amount in Rs. Lakh)

S. No	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)		(3)	(4)	(5)	(6)	(7)
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed						
1	Opening Normative Equity						
2	Less: Adjustment in Equity*						
3	Adjustment during the year						
4	Net Opening Equity (Normal)						
5	Add: Increase in Equity due to addition during the year/period						
6	Less: Decrease due to de-capitalisation during the year						
7	Less: Decrease due to de-capitalisation during the year/period.						
8	Add: Increase due to discharges during the year/period						
9	Closing Normative Equity						
10	Average Normative Equity						
11	Rate of Return on Equity (Base Rate)		15.50%	15.50%	15.50%	15.50%	15.50%

S. No	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
12	Reduced rate of 1% decided by commission under Regulation 30 (2) (if any)						
13	Effective tax rate / MAT rate for the respective years						
14	Rate of Return on Equity (Pre Tax)						
15	Return on Equity on project cost till Cutoff date (Pre Tax)						

S.No.	Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5	6	7	8
1.1	Equity as on COD/ Admitted equity						
1.2	Notional Equity for Add Cap						
1.3	Total Equity						
1.4	Return on Equity*						
	Total						

**Statement showing Return on Equity at
Weighted Average Rate of Interest on Actual Loan Portfolio**

S. No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)		(3)	(4)	(5)	(6)	(7)
1	Gross Opening Equity[pertaining to Proviso to Regulation 30(2)]						
2	Less: Less: Adjustment in Equity ¹						
3	Adjustment during the year						
4	Net Opening Equity [pertaining to Proviso to Regulation 30(2)]						
5	Add: Increase in equity due to addition during the year/period						
6	Less: Decrease due to de-capitalisation during the year/period						
7	Less: Decrease due to reversal during the year / period						
8	Add: Increase due to discharges during the year / period						
9	Closing Normative Equity						
10	Average Normative Equity						
11	Rate of Return on Equity						
12	Reduced rate of 1% decided by commission under Regulation 30 (2) (if any)						
13	Effective tax rate / MAT rate for the respective years						
14	Rate of Return on Equity (Pre Tax)						
15	Return on Equity on project cost till Cutoff date (Pre Tax)						

Note: 1 Adjustment of equity as per Proviso to Regulation 18(3) of 2019 Tariff Regulations.

(Petitioner)

2. In respect to Equity infusion the Generating Company is required to substantiate with supporting documents such as board resolutions, balance sheet/ reconciliation statement with balance sheet.

Details of Foreign Equity

(Details only in respect of Equity infusion if any applicable to the Asset/Element under petition)

Name of the Transmission Asset: _____

Exchange Rate on date/s of Infusion: _____

S. No.	Financial Year	Year 1				Year 2				Year 3 and so on			
	1	2	3	4	5	6	7	8	9	10	11	12	13
		Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)
	Currency1 ¹												
A.1	At the date of infusion ²												
2													
	Currency2 ¹												
A.1	At the date of infusion ²												
2													
	Currency3 ¹												
A.1	At the date of infusion ²												
2													
	Currency4 ¹ and so on												
A.1	At the date of infusion ²												
2													
3													

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

2. In case of equity infusion more than once during the year, Exchange rate at the date of each infusion to be given

(Petitioner)

PART-III
FORM- 9

Details of Allocation of corporate loans to various transmission elements

Name of the Transmission Asset: _____

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Remarks
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						
Distribution of loan packages to various transmission elements/Communication system						
Name of the Projects						Total
Transmission element 1/Communication system 1						
Transmission element 2 /Communication system 2						
Transmission element 3/Communication system 3 and so on						

Note:

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 31.03.2019 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.

5. If the Tariff in the petition is claimed separately for various transmission elements/Communication system, details in the Form is to be given separately for all the transmission elements/ Communication system in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, MCLR, LIBOR 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 drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately.
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawl & repayment of principal and interest along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate as on 31.03.2019 or as on COD whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately.
19. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

(Petitioner)

Details of Project Specific Loans

Name of the Transmission Asset: _____

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/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	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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

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 to be submitted as on 31.03.2019 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.

5. If the Tariff in the petition is claimed separately for various transmission system/transmission elements/Communication system, details in the Form is to be given separately for all the transmission system/transmission element/ Communication system in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, MCLR, LIBOR 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 drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawl & repayment of principal and interest along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate as on 31.03.2019 or as on COD whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
19. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

(Petitioner)

PART-III
FORM- 9B

Details of Foreign loans

(Details only in respect of loans applicable to the Asset/Element under Petition)

Name of the Transmission Asset: _____

Exchange Rate at COD/31.03.2019 whichever is later _____

S. No.	Financial Year (Starting from COD)	Year 1				Year 2 and so on			
	1	2	3	4 ^s	5	6	7	8 ^s	9
	Particulars	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)
	Currency1¹								
A.1	At the date of Drawl ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency2¹								
A.1	At the date of Drawl ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of								

S. No.	Financial Year (Starting from COD)	Year 1				Year 2 and so on			
		1	2	3	4 ^s	5	6	7	8 ^s
		Particulars	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate
		hedging							
2		Period of hedging							
3		Cost of hedging							
		Currency³ & so on							
A.1		At the date of Drawl ²							
2		Scheduled repayment date of principal							
3		Scheduled payment date of interest							
4		At the end of Financial year							
B		In case of Hedging ³							
1		At the date of hedging							
2		Period of hedging							
3		Cost of hedging							

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

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

3. Furnish details of hedging, in case of more than one hedging during the year or part hedging, details of each hedging are to be given.

NOTE

In case of refinancing similar details with supporting documents to be furnished

*- Exchange rate at COD/31.03.2019 whichever is later

(Petitioner)

PART-III
FORM- 9C

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of the Transmission Asset: _____

(Amount in Rs. Lakh)

Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
Loan-1						
Gross loan - Opening						
Cumulative repayments of Loans up to previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
<i>Loan repayment effective from (date to be indicated)</i>						
Loan-2 and so on						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
<i>Loan repayment effective from (date to be indicated)</i>						
Total Loan						
Gross loan - Opening						
Cumulative repayments of Loans up to previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Interest on loan						
Weighted average Rate of Interest on Loans						

Note:1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D).

However, the calculation in original currency is also to be furnished separately in the same form.

2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.

3. Details of Financing Charges.

(Petitioner)

PART-III

FORM 9D

Loans in Foreign Currency

Name of the Transmission Asset: _____

Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
Foreign Loan-1 (USD in Lakh) Exchange rate						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
<i>Loan repayment effective from (date to be indicated)</i>						
Foreign Loan-2 (USD in Lakh) Exchange rate						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
<i>Loan repayment effective from (date to be indicated)</i>						
Foreign Loan-3 (USD in Lakh) Exchange rate						
....						
....						

(Petitioner)

Calculation of Interest on Normative Loan

Name of the Transmission Asset: _____

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed						
1	Gross Normative loan - Opening						
2	Cumulative repayment of Normative Loan upto previous year						
3	Net normative loan - Opening						
4	Addition in Normative loan towards the ACE						
5	Adjustment of Normative Gross loan pertaining to the decapitalised asset.						
6	Normative Repayments of Normative Loan during the year						
7	Adjustment of Cum. repayment pertaining to the decapitalised asset.						
8	Net Normative loan - Closing						
9	Average Normative Loan						
10	Weighted average Rate of Interest of actual Loans						
11	Interest on Normative loan						

(Petitioner)

Calculation of Depreciation Rate on original project cost

Name of the Transmission Asset: _____

(Amount in Rs. Lakh)

S. No.	Name of the Assets ¹	Gross Block as on 31.03.2019 or as on COD, whichever is later and subsequently for each year thereafter upto 31.3.2024	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.2024
	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				
	TOTAL			
	Weighted Average Rate of Depreciation (%)			

Note:

1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)

PART-III
FORM- 10 A

Tariff Regulations 2019-24

Name of the Transmission Asset: _____

(Amount in Rs. Lakh)

Statement of Depreciation							
S. No.	Particulars	As on 01-04-2019 / COD	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days in the year		366	365	365	365	366
II	No. of days for which tariff claimed						
<i>Life at the beginning of year</i>							
1.1	Weighted Average useful Life of the Asset/Project.						
1.2	Lapsed weighted average useful life of the asset/project (in Completed no. of Year).						
1.3	Balance weighted average useful life of the asset/project (in Completed no. of Years)						
<i>Capital Base</i>							
1.4	Opening Capital Cost						
1.5	Additional Capital Expenditure dr. the year						
1.6	De-Capitalisation during the year						
1.7	Closing Capital Cost						
1.8	Average Capital Cost						
1.9	Freehold land included in 1.8						
1.10	Asset having NIL Salvage value included in 1.8						
1.11	Asset having 10% Salvage value included in 1.8						
1.12	Depreciable value (1.10+ 90% of 1.11)						
<i>Depreciation for the period and Cum. Depreciation.</i>							
1.13	Weighted Average Rate of depreciation						
1.14	Depreciation (for the period)						
1.15	Depreciation (annualised)						
1.16	Cumulative depreciation at the beginning of the period						
1.17	Less: Adj. of Cum.dep. pertaining to the decapitalised asset.						
1.18	Cumulative depreciation at the end of the period						

(Petitioner)

Statement of De-capitalisation

Name of the Transmission Asset: _____

COD: _____

S. No.	Category ^s	Date of Decapitalisation	Details of the Asset Decapitalised	Date / Year of capitalisation of asset/equipment being decapitalised	Original Capital Cost admitted for tariff for the asset being decapitalised	Debt Equity ratio considered on for tariff on the Capital cost at (5)	Cumulative Depreciation corresponding to decapitalised asset up to the date of decapitalisation	Cumulative Repayment of Loan corresponding to decapitalised asset up to the date of decapitalisation	Details of Petition in which the tariff of the asset being de-capitalised was approved by Commission (Specify All the Pet. No. & Order date, Project name, Asset No for all the periods starting from its COD till date
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2019-20									
1									
2....									
Total									
2020-21									
1									
2....									
Total									
2021-22									
1									
2...									
Total									
2022-23									
1									
2...									
Total									

S. No.	Category ^s	Date of Decapitalisation	Details of the Asset Decapitalised	Date / Year of capitalisation of asset/equipment being decapitalised	Original Capital Cost admitted for tariff for the asset being decapitalised	Debt Equity ratio considered on for tariff on the Capital cost at (5)	Cumulative Depreciation corresponding to decapitalised asset up to the date of decapitalisation	Cumulative Repayment of Loan corresponding to decapitalised asset up to the date of decapitalisation	Details of Petition in which the tariff of the asset being de-capitalised was approved by Commission (Specify All the Pet. No. & Order date, Project name, Asset No for all the periods starting from its COD till
2023-24									
1									
2...									
Total									

Note: Category include

1. Replacement due to no usable condition like destroyed, completed useful life etc.
2. Replacement due to change in law.
3. Inter Unit transfer (transfer outside of the project)
4. Asset not put to use

(Petitioner)

Calculation of Interest on Working Capital

Name of the Transmission Asset: _____

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days in the year		366	365	365	365	366
II	No. of days for which tariff claimed						
1	O & M Expenses - one month						
2	Maintenance Spares 15% of O&M Expenses						
3	Receivables equivalent to 45 days of AFC						
4	Total Working Capital						
5	Bank rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.						
6	Interest on Working Capital						

(Petitioner)

Details of time over run

Name of the Transmission Asset: _____

S.No.	Description of Activity/Works/Service	Original Schedule (As per Planning)		Actual Achieved (As per Actual)		Time Over-Run	Agency responsible and whether such time over run was beyond the control of the Transmission Licensee	Reasons for delay	Other Activity affected (Mention Sr. No of activity affected)
		Start Date	Completion Date	Start Date	Completion Date	Months			
1.	Notification under Section 164 of EA,2003								
2.	Award of Forest Proposal submission, Clearance & tree cutting order								
3.	Land acquisition								
4.	Award of tower supply & erection package								
5.	Tower Supply, Supply of Hardware & Accessories								
6.	Supply of Conductor								
7.	Supply of Insulators								
8.	Tower Foundation & erection								
9.	Stringing								
10.	Testing & Commissioning								

1. Delay on account of each reason in case of time overrun should be quantified and substantiated with necessary documents and supporting workings.
2. In case any margin (in schedule) is kept for the purpose of probable issue of RoW, the same may be indicated separately by the petitioner

(Petitioner)

Incidental Expenditure during Construction

Name of the Transmission Asset: _____

Date of Commercial Operation _____

(Amount in Rs. Lakh)

S. No.	Parameters	Year -1	Year-2	Year 3	Year-4	Year-5
A	Expenses:					
1	Employees' Remuneration & Benefits					
2	Finance Costs					
3	Water Charges					
4	Communication Expenses					
5	Power Charges					
6	Depreciation					
7	Other Office and Administrative Expenses					
8	Others (Please Specify Details)					
9	Other pre-Operating Expenses					
					
B	Total Expenses					
	Less: Income from sale of tenders					
	Less: Income from guest house					
	Less: Income recovered from Contractors					
	Less: Interest on Deposits					
					
	Total					

Note: IEDC should be duly reconciled with the corresponding figures of Auditor's Certificate.

(Petitioner)

Drawdown schedule Calculation of IDC & Financing Charges

Name of the Transmission Asset: _____

[illegible]

Interest During Construction: Foreign Loan										
S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									

Note:

1. Drawl of debt and equity shall be on pari-passu basis quarter wise to meet the commissioning schedule. Drawl of higher equity in the beginning is permissible
2. Applicable interest rates including reset dates used for above computation may be furnished separately
3. In case of multi element project details of capitalization ratio used to be furnished.

A) Interest During Construction: Domestic Loan																	
S. No.	Name of the Lender & Loan	Loan Type ^a	Interest type ^b	Interest frequency ^c	Interest Due dates	Date of infusion	Loan Principal Amount	Rate of Interest ^d	COD	No. of Interest Days	Interest up to COD	Adjustments if any	Capitalized IDC Up to COD	Interest on Cash basis ^d	Un-Discharge IDC liability ^e	year 1 Discharge ^f	year 2 Discharge ^g
	1	2	3	4	5	6	7	8	9	10=(9-6)	11=(7*8*10)	12	13=11-12	14	15=(11-14)	16	17
1	Loan 1																
2	Loan 2																
3	Loan 3																
4	—																
6	Loan 2....																
Total							0.00				0.00			0.00			

- a) Loan Type (Project Specific loan/ Allocated loan),
b) Interest type (Fixed / Floating)
c) Interest on Cash basis (i.e. Interest Actually paid up to Actual COD)
d) Un-Discharge IDC liability as on COD
e) Discharge payment frequency (Annual, Semi-Annual, Qtrly/Monthly etc.
f) of IDC liability claimed as ACE in Year 1
g) Discharge of IDC liability claimed as ACE in Year 2

B) Capitalised Finance Charges (Domestic Loan)								
S. No	Name of the Finance Charge	Whether one time payment/periodical payment ?	Basis of payment	Date	Finance Charges paid/Payable	Capitalised FC	Liabilities	FC on Cash Basis
Total								

Note: 1) In case of Floating rate of Interest or multiple drawl of same loan or repayment during construction period, the petitioner has to provide a separate interest calculation for every such loans and the finally computed interest amount has to be shown in the above statement. The Applicable interest rates including reset dates used for above computation may be furnished separately

2) In case of re-payment if any made during the construction period, a separate calculation has to be enclosed for such loans and the final Interest amount has to be shown in the above statements

4) The date should be shown in DD/MM/YYYY format

5). In case of multi element project details of capitalization ratio used to be furnished.

6) If any of the debt fund infused prior to the zero date, the IDC is entitled only from the zero date.

7) Applicable interest rates including reset dates used for above computation may be furnished separately

(Petitioner)

Details of Initial Spares													
Name of the petitioner													
Claimed / Admitted COD										Cut-off Date of the Asset:			
A) Determination of Excess initial spare and its adjustment from Capital cost													
Particulars	Plant and machinery cost as on cut-off Date ¹	Initial Spare Capitalised as per Books of Account up to Cut-off Date					Ceiling limit as mentioned in Regulations 23	Entitled Initial Spare as per Regulations	Excess of capitalised Initial Spare to be reduced from Capital cost.	Adjustment of Excess Initial Spare from Capital cost of Plant and Machinery			
		As on COD	As ACE dr. Y1	As ACE dr. Y2	As ACE dr. Y3	Total as on Cut off Date ³				CO D	ACE for Y1	ACE for Y2	ACE for Y3
1	2	3	4	5	6	7	8	9	10=7-9(Note 2)	11	12	13	14
Transmission Line							1.00%						
Substation Green field							4.00%						
Substation Brown Field							6.00%						
Series Compensation devices and HVDC Station							4.00%						
GIS/S- Green field							5.00%						
GIS/S-Brown field							7.00%						
Communication System							3.50%						
Static Synchronous Compensator							6.00%						
initial spare as per Books of Account													
Un-Discharge liabilities included above													
Total Capitalized initial spare													

Note: 1) Plant and machinery cost as on cut-off Date for the purpose of initial spare (As computed in Col. L of the below table)
 2) The column 10 has to be shown as nil in case the claimed initial spare is within the ceiling limit.
 3) Total cost should be excluding IDC and IEDC.

B) Determination of Plant & Machinery Cost for ceiling of initial spare.											
Particulars	Gross Block of Asset as on COD	Less: Amount included in Col. B towards					Plant and machinery cost as on COD for Initial Spare purpose h=b-c-d-e-f-g	Plant & Machinery Capitalised as ACE up to cut off date			plant and machinery cost as on cut-off Date for the purpose of initial spare l=h+i+j+k
		Land Cost	Cost of Civil Works	IEDC	IEDC	Initial Spare		Year -1	Year-2	Year-3	
A	b	c	d	e	f	g	h=b-c-d-e-f-g	i	j	k	l=h+i+j+k
Transmission Line											
Substation Green field											
Substation Brown Field											
Series Compensation devices and HVDC Station											
Gas Insulated Substation- Green field											
Gas Insulated Substation-Brown field											
Communication System											
Static Synchronous Compensator											
Note: The Cost details for the year in which Cut-off date falls has to be provide only up to the cut-off date.											

(Petitioner)

Non-Tariff Income

S. No.	Parameters	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1.	Income from rent of land or buildings						
2.	Income from sale of scrap						
3.	Income from advertisements						

Note: To be submitted at the time of truing up

(Petitioner)

PART-III
FORM- 15

Summary of issue involved in the petition

1. Name of the Petitioner		
2. Petition Category		
3. Tariff Period		
4. Name of the Project		
5. Investment Approval date		
6. SCOD of the Project		
7. Actual COD of the project		
8. Whether entire scope is covered in the present petition.		
9. No. of Assets covered in instant petition		
10. No. of Assets having time over run		
11. Estimated Project Cost as per IA		
12. Is there any REC? if so, provide the date		
13. Revised Estimated Project Cost (if any)		
14. Completion cost for all the assets covered in the instant petition.		
15. No. of Assets covered in instant petition and having cost overrun.		
16	Prayer in brief	
17	Key details and any Specific issue involved	
18	Respondents	
	Name of Respondents	
	1	4
	2.	5
	3.

(Petitioner)

Part III
Form A

Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.													
Name of the Petitioner													
Tariff Period				2019-24									
Name of the Transmission Project													
COD of the Project(if entire scope of project is completed)													
Rupees in lakh													
A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the instant petition.													
S. No.	Asset No.	COD	Cut-off Date	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost							Capital Cost as on Cut-off Date
				As per Investment approval	As per RCE	As on COD	2019-20	2020-21	2021-22	2022-23	2023-24	Capital Cost as on 31.03.2024	
				3	4	5	6	7	8	9	10	11=(5+6+7+8+9+10)	
1	Asset 1												
2	Asset 2												
---	Asset												
Total Capital Cost Claimed													
B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition.													
S. No.	Asset No.	Asset Name and its location					2019-20	2020-21	2021-22	2022-23	2023-24		
1	Asset 1												
2	Asset 2												
---	Asset												
Total AFC for all the Assets													
Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.													

(Petitioner)

(TARIFF FILING FORMS (INTEGRATED MINE))

FOR DETERMINATION OF INPUT PRICE

Main Tariff Form

PART-IV

Annexure-I

**Checklist of Main Tariff Forms and other information for tariff filing for
Integrated Mine**

Form No.	Title of Tariff Filing Forms (Integrated Mine)	Tick
FORM- 1	Summary of Input Price	
FORM -1A	Summary of ROM Cost	
FORM -1B	Summary of Additional Charges	
FORM-2	Statement showing claimed Capital Cost	
FORM-2A	Statement showing claimed Return on Equity	
FORM-2B	Statement showing claimed O&M cost	
FORM- 3	Mine Characteristics/Important Details as per Mine Plan	
FORM- 3A	Normative Parameters considered for Input Price computation	
FORM- 4	Details of Foreign loans	
FORM- 4A	Details of Foreign Equity	
FORM-5	Abstract of Admitted Capital Cost for the existing Integrated Mine	
FORM- 6	Financial Package up to date of commercial operation & up to Peak rated capacity	
FORM- 7	Details of Integrated Mine Specific Loans	
FORM- 8	Details of Allocation of corporate loans to Integrated Mine	
FORM-9	Year wise Statement of Additional Capitalization after date of commercial operation up to/ beyond achieving Peak rated Capacity	
FORM- 10	Financing of Additional Capitalization	
FORM- 11	Calculation of Depreciation	
FORM- 12	Statement of Depreciation	
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	
FORM- 14	Draw Down Schedule for Calculation of IDC & Financing Charges	
FORM- 15	Non-Tariff Income	
FORM- 16	Details of Applicable Statutory Charges	
FORM-17	Details of Mine Closure expenses	
FORM- 18	Details for GCV Adjustment	

PART-IV**List of Supporting Forms / documents for tariff filing for
Integrated Mine**

Form No.	Title of Tariff Filing Forms (Integrated Mine)	Tick
FORM-A	Abstract of Capital Cost Estimates and cost on date of commercial operation of the Integrated Mine	
FORM-B	Break-up of Capital Cost for New Integrated Mine	
FORM-C	Break-up of Construction/Supply/Service Packages	
FORM -D	Details of Assets De-capitalized during the period	
FORM -E	Reconciliation of Capitalization claimed vis-à-vis books of accounts	
FORM -F	Statement showing details of items/assets/works claimed under Exclusions	
FORM-G	Statement of Capital cost	
FORM-H	Statement of Capital Woks in Progress	
FORM-I	Calculation of Interest on Normative Loan	
FORM-J	Calculation of Interest on Working Capital	
FORM-K	Incidental Expenditure up to date of commencement of Production and up to Actual/anticipated date of commercial operation	
FORM-L	Expenditure under different packages up to date of commencement of Production and up to Actual/anticipated date of commercial operation	
FORM-M	Actual cash expenditure	
FORM-N	Statement of Liability flow	

List of supporting documents for tariff filing for Integrated Mine

S. No.	Information / Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Integrated Mine setup by a company making application for the first time to CERC)	
2	A. Mine wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on date of commercial operation of the Mine for the new mine & for the relevant years. B. Mine wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the existing mine for 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	List of End use generating plant to whom supplies made/to be made and quantity supplied/to be supplied	
7	Integrated Mine shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the Integrated Mine and subsequently consolidated at Company level as submitted to the Govt. of India from the date of commencement of production in case of a new mine or first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
8	Any other relevant information, (Please specify)	
9	Reconciliation with Balance sheet of any actual capitalization or additional capitalization year on year basis duly audited	
10.	Integrated mine is maintaining the records to be submitted frequently to the Coal Controller Office. Copy of Same should be furnished to the Commission at the time of submission to CCO. Forms may be suitably modified to furnish relevant important information for input price determination	

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.

PART-IV
FORM- 1

Summary of Input Price

Name of the Petitioner Name _____
of the Integrated Mine: Place _____
(Region/District/State): _____

S. No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8	9
1.1	ROM Cost as per Form 1 A	Rs/Tonne						
1.2	Additional Charge as per Form 1B	Rs/Tonne						
	Input Price	Rs/Tonne						
1.3	Statutory Charges ^{\$} as applicable	Rs/Tonne						

(Petitioner)

Note: \$ Detailed Computation of the same to be provided as per Form 16 duly audited

Summary of ROM Cost**PART-IV
FROM-1A***Tariff Regulations 2019-24*

Name of the Petitioner Name _____
 of the Integrated Mine: _____
 Place (Region/District/State): _____

S. No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8	9
1.1	Depreciation	Rs Lakh						
1.2	Interest on Loan	Rs Lakh						
1.3	Return on Equity ¹	Rs Lakh						
1.4	Interest on Working Capital	Rs Lakh						
1.5	O&M Expenses excluding mining charge	Rs Lakh						
1.6	Mine closure expense ² (If and as applicable)	Rs Lakh						
1.0	Total Annual Extraction Cost (Sum of above 1.1 to 1.6)	Rs Lakh						
2.0	Annual Target Quantity (ATQ) as per mine plan	Tonne						
3.0	Annual Extraction cost per tonne (1.0 in Rs/2.0)	Rs/Tonne						
4.0	Mining charge ⁴ (If and as applicable)	Rs/Tonne						
5.0	Fixed Reserve Price ⁵ (If and as applicable)	Rs/Tonne						
6.0	ROM cost (3.0+4.0+5.0)	Rs/Tonne						

(Petitioner)

Note:

1. Details of calculations, considering equity as per regulation, to be furnished as per Form .
2. Computation of Mine closure expenditure to be submitted separately as per Form 17.
3. Mining charge is the charge per tonne of fuel (coal/lignite) paid by the generating company to the Mine Developer and Operator (MDO) engaged by the generating company for mining, wherever applicable. Details to be provided in Form C
4. Fixed Reserve Price is the fixed reserve price per ton along with subsequent escalation, if any, as provided in the Coal Mine Development and Production Agreement. Duly audited computations to be provided
5. Statutory charges, if any, included in above in any manner, details of such statutory charges need to be submitted.

Summary of Additional Charges for (Name of the Activity®)

Name of the Petitioner _____

Name of the Integrated Mine: _____

Place (Region/District/State): _____

Sr. No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8	9
1.1	Depreciation	Rs Lakh						
1.2	Interest on Loan	Rs Lakh						
1.3	Return on Equity ¹	Rs Lakh						
1.4	Interest on Working Capital	Rs Lakh						
1.5	O&M Expenses excluding mining charge	Rs Lakh						
1.0	Total of Annual Additional Charges® (Sum of above 1.1 to 1.5)	Rs Lakh						
2.0	Quantity#	Tonne						
3.0	Annual Activity* charge per tonne (Sr No 1.0 /Sr No 2.0) (If and as applicable)	Rs/Tonne						
4.0	Activity* charge (If and as applicable)	Rs/Tonne						

(Petitioner)

Note:

@. To be filled separately for Crushing Charges, Transportation Charges (Separately for mine up to washery end or CHP associated with integrated mine and from washery end or CHP associated with integrated mine end up to Loading point, as the case may be), Handling Charges and Washing Charges, as applicable

1. Details of calculations, considering equity as per regulation, to be furnished.

#. Quantity shall be Quantity Crushed, Transported (Separately for mine up to washery end or CHP associated with integrated mine and from washery end or CHP associated with integrated mine end up to Loading point, as the case may be), Handled or Washed, as applicable

*. Activity means Crushing, Transportation, Handling or Washing, as applicable. Details to be provided in Form C

2. Annual activity Charge depicted in Sr No 3 of above table is for activities carried out departmentally whereas activity charge in Sr No 4 is for activities carried out by engaging agencies

3. Statutory charges, if any, included in above in any manner, details of such statutory charges need to be submitted.

PART-IV
FORM-2

Name of the Petitioner _____
Name of the Integrated Mine: _____

Statement showing claimed capital cost

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Opening Capital Cost					
2	Add: Addition during the year/period					
3	Less: De-capitalization during the year/period					
4	Add: Discharges of Liability during the year/period					
5	Closing Capital Cost (1+2-3+4)					
6	Average Capital Cost					

(Petitioner)

Note: All values as per Indian GAAP, on cash basis duly audited

Name of the Petitioner _____

Name of the Integrated Mine: _____

Statement showing claimed Return on Equity

Sr	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
A)	Return on Equity					
1	Opening Equity					
2	Add: Increase in equity due to addition during the year / period					
3	Less: Decrease due to De-capitalization during the year / period					
4	Add: Increase due to discharges during the year / period					
5	Closing Equity (1+2-3+4)					
6	Average Equity					
7	Rate of ROE (Pre Tax)					
8	Total ROE					

(Petitioner)

Note: All values as per Indian GAAP, on cash basis duly audited

**PART-IV
FORM-2B**

Name of the Petitioner _____
Name of the Integrated Mine: _____

Statement showing claimed O&M cost[^]

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Opening Capital Cost					
2	Add: Addition during the year/period					
3	Less: De-capitalization during the year/period					
4	Add: Discharges of Liability during the year/period					
5	Closing Capital Cost (1+2-3+4)					
6	Average Capital Cost					
7	O&M [^] @ 2% (escalated at the rate of 3.5% per annum) of Average Capital cost					
8	Annual Charge of Agency(ies) Other Than MDO*, if and as applicable					

(Petitioner)

Note:

1. Data to be furnished for each activity (Mining, Crushing, Transportation, Handling and Washing) separately as applicable

*Details to be provided

[^]At the time of true up Actual O&M expenses incurred to be submitted depicting all heads of expenditure duly audited

2. All values as per Indian GAAP, on cash basis duly audited

PART- IV
FORM-3

Mine Characteristics/Important Details as per Approved Mine Plan dated (dd/mm/yyyy)

Name of the Petitioner _____

Name of the Integrated Mine _____

Sr No	Parameters	Values
1	Mining plan/Mine closure plan Revision number and date of revision, if any	
2	Peak rated Capacity	
3	Year in which proposed to be achieved	
4	Mineable reserves	
5	Mining area land - Acquired/Leased	
6	If Leased - Period and terms of lease	
7	Mining Block Area	
8	Type of Mining	
9	Method of Mining	
10	Mine life in Years	
11	Scheduled date of commercial operation as per Investment approval	
12	Distance of Loading Point from mine end	
13	Gross Calorific value (GCV in Kcal/ Kg) of coal as per Geological Report, Range ,Mean	
14	Specific gravity of coal (Avg)	
15	Main Equipment's	
16	Other Important Parameters as deemed necessary	

CALENDER PRODUCTION PROGRAMME DURING THIS TARIFF PERIOD

Production Year/s	Coal Production (Mt)	OB Removal (Mm ³)	Stripping Ratio (m ³ /t)
1			
2			
3			
4			
5			

ACTUAL PRODUCTION ACHIEVED DURING THIS TARIFF PERIOD

Production Year/s	Coal Production (Mt)	OB Removal (Mm ³)	Stripping Ratio (m ³ /t)
1			
2			
3			
4			
5			

Normative parameters considered for Input Price computations

Name of the Petitioner _____
Name of the Integrated Mine _____

(Year Ending March)

Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
Base Rate of Return on Equity	%						
Effective Tax Rate ¹	%						
Input Cost of Coal/Lignite for WC	in days						
Consumption of stores and spares % of O&M	%						
One Month O&M Expenses	Rs lakh						
Rate of Interest on Working Capital	%						

Note:

1. Effective tax rate computation duly audited to be submitted.

(Petitioner)

(Details only in respect of loans applicable to the integrated mine under petition)

[illegible]

S. No.	Financial Year (Starting from Date of Commercial operation)	Year 1				Year 2				Year 3 and so on			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)
B	In case of Hedging ³												
1	At the date of hedging												
2	Period of hedging												
3	Cost of hedging												
	Currency³¹& so on												
A.1	At the date of Drawl or at the beginning to the year of the period ²												
2	Scheduled repayment date of principal												
3	Scheduled payment date of interest												
4	At the end of Financial year												
B	In case of Hedging ³												
1	At the date of hedging												
2	Period of hedging												
3	Cost of hedging												

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

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

3. Furnish details of hedging, in case of more than one hedging during the year or part hedging, details of each hedging are to be given

4. Tax (such as withholding tax) details as applicable including change in rates, date from which change is effective etc. must be clearly indicated.

(Petitioner)

Details of Foreign Equity

(Details only in respect of Equity infusion if any applicable to the Integrated Mine under petition)

Name of the Petitioner _____

Name of the Integrated Mine _____

Exchange Rate on date/s of infusion _____

S. No	Financial Year	Year 1				Year 2				Year 3 and so on			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)
	Currency1¹												
A.1	At the date of infusion ²												
2													
3													
	Currency2¹												
A.1	At the date of infusion ²												
2													
3													
	Currency3¹												
A.1	At the date of infusion ²												
2													
3													
	Currency1 and so on												
A.1	At the date of infusion ²												
2													
3													

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

2. In case of equity infusion more than once during the year, Exchange rate at the date of each infusion to be given.

(Petitioner)

Abstract of Admitted Capital Cost for the existing Integrated Mine

Name of the Petitioner _____

Name of the Integrated Mine _____

Last date of order of Commission for the Integrated Mine	Date (DD-MM-YYYY)	
Reference of petition no. in which the above order was passed	Petition no.	
Following details (whether admitted and /or considered) as on the last date of the period for which price is approved, in the above order by the Commission:		
Capital cost	(Rs. in lakh)*	
Amount of un-discharged liabilities included in above (& forming part of admitted capital cost)		
Amount of un-discharged liabilities corresponding to above admitted capital cost (but not forming part of admitted capital cost being allowed on cash basis)		
Gross Normative Debt		
Cumulative Repayment		
Net Normative Debt		
Normative Equity		
Cumulative Depreciation		
Freehold land		

(Petitioner)

Financial Package up to Date of Commercial Operation and up to date of Peak Rated Capacity

Name of the Petitioner _____
 Name of the Integrated Mine _____
 Cost as on Date of Commercial Operation¹ _____

	Financial Package as Approved		Financial Package as on date of Commercial Operation		As Admitted on date of Commercial Operation		Financial Package as on date of Peak Rated Capacity		As Admitted on date of Commercial Operation	
	Currency and Amount ²		Currency and Amount ²		Currency and Amount ²		Currency and Amount ²		Currency and Amount ²	
1	2	3	4	5	6	7	8	9	10	11
Loan-I	US \$	200m								
Loan-II										
Loan-III										
and so on										
Equity-										
Foreign										
Domestic										
Total Equity										
Debt : Equity Ratio										

Note:

1. Say Rs. 80 Cr. + US\$ 200 m or Rs. 1480 Cr. including US\$ 200 m at an exchange rate of US\$=Rs70
2. For example: US \$ 200m, etc.

(Petitioner)

Details of Integrated Mine specific loans

Name of the Petitioner

Name of the Integrated Mine

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/ 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	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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

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 31.03.2019 for existing Mine/s and as on date of commercial operation for new mine/s.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Input Price in the petition is claimed separately for various Mine/s, details in the Form is to be given separately for all the Mine/s in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, MCLR, LIBOR 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 drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawl & repayment along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2019 or date of commercial operation, whichever is later
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing, etc.

(Petitioner)

Details of Allocation of corporate loans to Integrated Mine

Name of the Petitioner

Name of the Integrated Mine

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Remarks
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						
	Distribution of loan packages to various projects					
Name of the Projects/ Integrated Mine						Total
Project 1						

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5
1	2	3	4	5	6
Project 2					
Integrated Mine and so on					

Note:

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 31.03.2019 for existing integrated mine and as on date of commercial operation for the remaining integrated mine.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Input Price in the petition is claimed separately for various mines, details in the Form is to be given separately for all the mines in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, MCLR, LIBOR 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 drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawl & repayment along with exchange rate at that date may be given.
16. Base Exchange Rate means the exchange rate prevailing as on 31.03.2019 or COD, whichever is later
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

(Petitioner)

Year wise Statement of Additional Capitalization after date of Commercial operation up to/beyond achieving Peak rated Capacity

Name of the Petitioner _____

Name of the Integrated Mine _____

Date of Commercial Operation _____

S. No.	Head of Work / Equipment	ACE Claimed (Actual / Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis	Un-discharged Liability included in column 3	Cash basis	IDC included in col. 3			
1	2	3	4	(5 = 3 - 4)	6	7	8	9

1. In case the integrated mine has been completed and cost has already been admitted under any price notification(s) in the past, fill column 9 giving the price as admitted for the purpose of price notification already issued by (Name of the authority) (Enclose copy of the Price notification).
2. The above information needs to be furnished separately for each year / period of tariff period 2019-24.
3. In case of de-capitalization of assets separate details to be furnished at column 1, 2, 3 and 4. Further, the original book value and year of capitalization of such asset to be furnished at column 8. Where de-caps are on estimated basis the same to be shown separately.
4. Where any asset is rendered unserviceable the same shall be treated as de-capitalized during that year and original value of such asset to be shown at col. 3. and impaired value if any, year of its capitalization to be mentioned at column 8.
5. Justification against each asset of capitalization should be specific to regulations under which claim has been made and the necessity of capitalization of that particular asset.

Note:

1. Fill the form in chronological order year wise along with detailed justification

(Petitioner)

Financing of Additional Capitalization

Name of the Petitioner

Name of the Integrated Mine

Date of Commercial Operation

(Amount in Rs Lakh)

	Actual					Admitted				
Financial Year (Starting from COD) ¹	Year 1	Year 2	Year 3	Year 4	Year 5 & So on	Year 1	Year 2	Year 3	Year 4	Year 5 & So on
1	2	3	4	5	6	7	8	9	10	11
Amount capitalized in Work/ Equipment										
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan ²										
Equity										
Internal Resources										
Others (Pl. specify)										
Total										

Note:

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

2. Loan details for meeting the additional capitalization requirement should be given as per FORM-7 or 8 whichever is relevant.

(Petitioner)

PART- IV
FORM- 11

Calculation of Depreciation

Name of the Petitioner

Name of the Integrated Mine

(Amount in Rs Lakh)

S. No.	Name of the Assets ¹	Gross Block as on 31.03.2019 or as on date of Commercial Operation, whichever is later and subsequently for each year thereafter upto 31.3.2024	Depreciation Rates as per CERC's Depreciation Rate Schedule for Integrated Mines	Depreciation Amount for each year up to 31.03.2024
1	2	3	4	5 = Col.3 X Col.4
1	Land*			
2	Building			
3	and so on			
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
	TOTAL			
	Weighted Average Rate of Depreciation %			

**Provide details of Freehold land and Lease hold land separately*

Note:

1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification in Appendix I.

(Petitioner)

**PART- IV
FORM- 12****Statement of Depreciation****Name of the Petitioner****Name of the Integrated Mines**

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1.	Opening Capital Cost						
2.	Closing Capital Cost						
3.	Average Capital Cost						
4.	Freehold land						
5.	Rate of depreciation						
6.	Depreciable value						
7.	Balance useful life at the beginning of the period						
8.	Remaining depreciable value						
9.	Depreciation (for the period)						
10.	Depreciation (annualized)						
11.	Cumulative depreciation at the end of the period						
12.	Less: Cumulative depreciation adjustment on account of de-capitalization						
13.	Net Cumulative depreciation at the end of the period						

(Petitioner)

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs. Lakh)

Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Loan-1						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan-2						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan-3 and so on						
Gross loan - Opening						

Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Total Loan						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Interest on loan						
Weighted average Rate of Interest on Loans						

Note:

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

(Petitioner)

Draw Down Schedule for Calculation of IDC & Financing Charges

Name of the Petitioner _____

Name of the Generating Station _____

S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
1	Loans									
1.1	Foreign Loans									
1.1.1	Foreign Loan ¹									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.2	Foreign Loan ²									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.3	Foreign Loan ³									

S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.4	--									
	--									
	--									
1.1	Total Foreign Loans									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.2	Indian Loans									
1.2.1	Indian Loan ¹									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	

S. No.	Draw Down Particulars	Quarter 1			Quarter 2			Quarter n (COD)		
		Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
	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									

S. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
	Foreign Exchange Rate Variation									
	Hedging Cost									
2	Equity									
2.1	Foreign equity drawn									
2.2	Indian equity drawn	—	—		—	—		—	—	
	Total equity deployed									

Note:

1. Drawl of debt and equity shall be on pari-passu basis quarter wise to meet the commissioning schedule. Drawl of higher equity in the beginning is permissible
2. Applicable interest rates & exchange rates including reset dates used for above computation may be furnished separately
3. Details of capitalization ratio used needs to be furnished.

(Petitioner)

Non-Tariff Income

Name of the Petitioner _____

Name of the Integrated Mine _____

S. No.	Parameters	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1.	Income from sale of washery rejects, if and as applicable						
2.	Profit from supply of coal to CIL or merchant sale of coal, if and as applicable						
3.	Income from rent of land or buildings						
4.	Income from sale of scrap						
5.	Income from advertisements						
6.	Others &						

Note: To be submitted at the time of truing up

& Parameter wise details to be furnished

(Petitioner)

Details of Applicable Statutory Charges

Name of the Petitioner
Name of the Integrated Mine

Particulars	Applicable Rate	Quantity	Amount
Royalty	% of Input Price (Basic Rate)		
District Mineral Foundation (DMF)	% of Royalty		
National Mineral Exploration Trust (NMET)	% of Royalty		
GST Compensation Cess	Rs per tonne		
GST	% of Total Taxable Value of Goods		
Others, please specify, if any and as applicable			

(Petitioner)

Details of Mine Closure Expenses

Name of the Petitioner _____
Name of the Integrated Mine _____

1. Amount Deposited in Escrow Account prior to date of Commercial Operation (Rs) **PV**
2. Life of Mine over which amount is to be recovered (Yrs) **n**
3. Borrowing Rate per year (%) **r**
4. Amount recoverable per Year (Rs) **P**

$$P = PV \times r / [1-(1+r)^{-n}]$$

5. Deposit after the date of Commercial operation - when mine closure is in scope of Generating Company itself

Production Year No. (1)	Amount of Deposit in Escrow account (2)	Date of Deposit in Escrow account (3)	Interest Earned/Accrued in Escrow account (4)	Amount received from Escrow account towards Mine closure (5)	Admissible Mine closure expense (6)
1					
2					
3					
4					
5					

6. Deposit after the date of Commercial operation - when mine closure is in scope of Mine Developer & Operator (MDO)

Production Year No. (1)	Amount of Deposit in Escrow account (2)	Date of Deposit in Escrow account (3)	Borrowing cost at weighted average rate of interest of actual loan (4)	Interest Earned/Accrued in Escrow account (5)	Amount received from Escrow account towards Mine closure (6)	Adjustment to be made in Input price as a part of Mine closure expense (7)
1						
2						
3						
4						
5						

(Petitioner)

Note: Calculations to be submitted duly certified by Auditor, as applicable

Details for GCV Adjustment

Name of the Petitioner
Name of the Integrated Mine

1. Declared GCV of Coal (Kcal/Kg)
2. Weighted Average GCV of Coal extracted in the year as reported to CCO (Kcal/Kg)

(Petitioner)

Abstract of Capital Cost Estimates and Cost on the date of Commercial Operation of the Integrated Mine

Name of the Petitioner _____
 Name of the Integrated Mine _____

New Mine**Capital Cost Estimates**

Board of Director/ Agency approving the Capital cost estimates:		
Date of approval of the Capital cost estimates:		
	Present Day Cost	Cost
Price level of approved estimates	As on End of _____ Qtr. Of the year _____	As on date of Commercial Operation of the Mine
Foreign Exchange rate considered for the Capital cost estimates		
Capital Cost excluding IDC, IEDC & FC (Rs. Lakh)		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Capital cost excluding IDC, IEDC, FC, FERV & Hedging Cost (Rs. Lakh)		
IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Total IDC, IEDC, FC, FERV & Hedging Cost (Rs. Lakh)		
Rate of taxes & duties considered		
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		

Capital cost Including IDC, IEDC& FC (Rs. Lakh)	
Schedule	
Scheduled date of commercial operation as per Investment Approval/Mine Plan	
Scheduled date of Peak rated capacity as per Investment Approval/Mine Plan	
Scheduled COD of last Unit/Block	

Note:

1. Copy of Investment approval letter should be enclosed.
2. Details of Capital Cost are to be furnished as per FORM B as applicable.
3. Details of IDC & Financing Charges are to be furnished as per FORM-14.

(Petitioner)

Break-up of Capital Cost for New Integrated Mine

Name of the Petitioner _____
 Name of the Integrated Mine _____

(Amount in Rs. Lakh)

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure as on date of commercial operation/ anticipated date of commercial operation	Liabilities/ Provisions	Variation (3 - 4 - 5)	Specific Reasons for Variation	Estimated Capital expenditure up to Peak Rated Capacity
			Actual Amount				
1	2	3	4	5	6	7	8
1	Cost of Land & Site Development						
1.1	Land*						
1.2	Rehabilitation & Resettlement (R&R)						
1.3	Preliminary Investigation & Site Development (Prospecting and Boring)						
	Total Land & Site Development						
2	Plant & Equipment						
2.1	Coal Handling Plant						
2.2	Material Handling system						
2.3	Fixed Infrastructure Mechanical						
2.4	Other Plant and Machinery						
	Total BOP Mechanical						
3	Plant & Machinery						
3.1	Switchyard Package						
3.2	Emergency D G Set						

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure as on date of commercial operation/ anticipated date of commercial operation	Liabilities/ Provisions	Variation (3 - 4 - 5)	Specific Reasons for Variation	Estimated Capital expenditure up to Peak Rated Capacity
			Actual Amount				
1	2	3	4	5	6	7	8
3.3	Fixed Infrastructure Electrical						
	Total BOP Electrical						
4	Spares						
4.1	Initial Spares						
	Total Plant and Machinery						
5	Civil Works						
5.1	Township & Colony/ Aux Building						
5.2	Temporary Construction & Enabling Works						
5.3	Road and Drainage						
5.4	Fixed Infrastructure Civil						
	Total Civil Works						
6	Overheads						
6.1	Establishment (Other Expenditure directly attributable to Construction)						
6.2	MBOA						
6.3	Mine Development expenditure excluding IDC						
	Total Overheads						
7	Total Capital cost excluding IDC & FC						
8	IDC, FC, FERV & Hedging cost						
8.1	Interest During Construction (IDC)						
8.2	Financing charges (FC)						
8.3	Foreign Exchange Rate Variation						

S. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure as on date of commercial operation/ anticipated date of commercial operation	Liabilities/ Provisions	Variation (3 - 4 - 5)	Specific Reasons for Variation	Estimated Capital expenditure up to Peak Rated Capacity
			Actual Amount				
1	2	3	4	5	6	7	8
	(FERV)						
8.4	Hedging cost						
	Total of IDC, FC, FERV & Hedging cost						
9	Capital cost including IDC,FC,FERV & Hedging cost						

**Provide details of Freehold land and Lease hold land separately*

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the generating company.
2. In case of both time & cost overrun, a detailed note giving reasons of such time and cost over-run should be submitted clearly bringing out the agency responsible and whether such time and cost overrun was beyond the control of the generating company.
3. The implication on cost due to time over run, if any shall be submitted separately giving details of increase in prices in different packages from scheduled date of commercial operation to Actual date of commercial operation / anticipated date of commercial operation, increase in IEDC from scheduled date of commercial operation to actual date of commercial operation / anticipated date of commercial operation and increase of IDC from scheduled date of commercial operation to actual anticipated date of commercial operation.
4. **Impact on account of each reason for Time over run on Cost of project should be quantified and substantiated with necessary documents and supporting workings.**
5. A list of balance deferred work assets/work wise including initial spare on original scope of works along with estimate shall be furnished positively.

(Petitioner)

Break-up of Construction/Supply/Service packages

Name of the Petitioner

Name of the Integrated Mine

(Amount in Rs. Lakh)

S. No.	Name/No. of Construction / Supply / Service Package	Package A	Package B	Package C	...	Total Cost of all packages
1	Scope of works ¹ (in line with head of cost break-ups as applicable)					
2	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work					
3	No. of bids received					
4	Date of Award					
5	Date of Start of work					
6	Date of Completion of Work/ Expected date of completion of work					
7	Value of Award ² in (Rs. Lakh)					
8	Firm or With Escalation in prices					
9	Actual capital expenditure till the completion or up to date of commercial operation whichever is earlier (Rs. Lakh)					
10	Taxes & Duties and IEDC (Rs. Lakh)					
11	IDC, FC, FERV & Hedging cost (Rs. Lakh)					
12	Sub -total (9+10+11) (Rs. Lakh)					

Note:

1. The scope of work in any package should be indicated in conformity of Capital cost break-up for the Integrated Mine in the FORM-B 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 separately along with the currency, the exchange rate and the date e.g. Rs.80 Cr. +US\$50m=Rs.430Cr. at US\$=Rs70 as on say 01.04.19.

(Petitioner)

Details of Assets De-capitalized during the period

Name of the Petitioner _____

Name of the Integrated Mine _____

(Amount in Rs. Lakh)

S. No.	Name of the Asset	Nature of de-capitalization (whether claimed under exclusion or as additional capital expenditure)	Original Value of the Asset Capitalized	Year Put to use	Depreciation recovered till date of de-capitalization
1	2	3	4	5	6
1					
2					
3					
4					
5					

Note: Year wise detail need to be submitted.**(Petitioner)**

Reconciliation of capitalization claimed vis-à-vis books of accounts

Name of the Petitioner

Name of the Integrated Mine

Date of Commercial Operation

(Amount in Rs. Lakh)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Closing Gross Block as per IND AS					
2	Add/Less: Adjustments					
3	Closing Gross Block as per I GAAP					
4	Opening Gross Block as per IND AS					
5	Add/Less: Adjustments					
6	Opening Gross Block as per I GAAP					
7	Total Additions as per books (G = 3 - 5)					
8	Less: Additions pertaining to other Mines (give Mine wise breakup)					
9	Net Additions pertaining to instant Mine					
10	Less: Exclusions (items not allowable / not claimed)					
11	Net Additional Capital Expenditure Claimed (on accrual basis) (I GAAP)					
12	Less: Un-discharged Liabilities					
13	Add: Discharges of un-discharged liabilities, corresponding to admitted assets/works					
14	Net Additional Capital Expenditure Claimed (on cash basis)					

Note: 1. To be submitted duly certified by Auditor

2. Reason for exclusion of any expenditure shall be given in Clear terms

(Petitioner)

**PART- IV
FORM- F****Statement showing items/assets/works claimed under Exclusions:**

Name of the Petitioner _____
 Name of the Integrated Mine _____
 Date of Commercial Operation _____

(Amount in Rs. Lakh)

S. No.	Head of Work / Equipment	ACE Claimed under Exclusion				Justification
		Accrual basis (Indian GAAP)	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	
1	2	3	4	(5 = 3 - 4)	6	7

Note: 1. Exclusions claimed on assets not allowed earlier should be supported by the specific reference of Commission Order date, Petition No., amount disallowed, etc.

2. For inter unit transfer, nature of transfer i.e. temporary or permanent should be mentioned. It is to be certified that exclusion sought in receiving station only and not in sending station or in both the station.

(Petitioner)

Name of the Petitioner

Name of the Integrated Mine

Statement of Capital cost

(To be given for relevant dates and year wise)

(Amount in Rs. Lakh)

S. No.	Particulars	As on relevant date		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening Gross Block Amount as per books (Indian GAAP)			
	b) Amount of IDC in A(a) above			
	c) Amount of FC in A(a) above			
	d) Amount of FERV in A(a) above			
	e) Amount of Hedging Cost in A(a) above			
	f) Amount of IEDC in A(a) above			
B	a) Addition in Gross Block Amount during the period (Direct purchases) (Indian GAAP)			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Addition in Gross Block Amount during the period (Transferred from CWIP) (Indian GAAP)			

S. No.	Particulars	As on relevant date		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
	b) Amount of IDC in C(a) above			
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			
	e) Amount of Hedging Cost in C(a) above			
	f) Amount of IEDC in C(a) above			
D	a) Deletion in Gross Block Amount during the period (Indian GAAP)			
	b) Amount of IDC in D(a) above			
	c) Amount of FC in D(a) above			
	d) Amount of FERV in D(a) above			
	e) Amount of Hedging Cost in D(a) above			
	f) Amount of IEDC in D(a) above			
E	a) Closing Gross Block Amount as per books (Indian GAAP)			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			

Note:

1. Relevant date/s means date of commercial operation of mine and financial year start date and end date

(Petitioner)

Name of the Petitioner _____
 Name of the Integrated Mine _____

Statement of Capital Works in Progress
 (To be given for relevant dates and year wise)

(Amount in Rs. Lakh)

S. No.	Particulars	As on relevant date		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening CWIP as per books (Indian GAAP)			
	b) Amount of IDC in A(a) above			
	c) Amount of FC in A(a) above			
	d) Amount of FERV in A(a) above			
	e) Amount of Hedging Cost in A(a) above			
	f) Amount of IEDC in A(a) above			
B	a) Addition in CWIP during the period(Indian GAAP)			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Transferred to Gross Block Amount during the period (Indian GAAP)			
	b) Amount of IDC in C(a) above			
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			

S. No.	Particulars	As on relevant date		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
	e) Amount of Hedging Cost in C(a) above			
	f) Amount of IEDC in C(a) above			
D	a) Closing CWIP as per books (Indian GAAP)			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			

Note:

1. Relevant date/s means date of commercial operation of mine and financial year start date and end date

(Petitioner)

Calculation of Interest on Normative Loan

Name of the Petitioner

Name of the Integrated Mine

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Gross Normative loan - Opening						
2	Cumulative repayment of Normative loan up to previous year						
3	Net Normative loan - Opening						
4	Add: Increase due to addition during the year / period						
5	Less: Decrease due to de-capitalisation during the year / period						
6	Add: Increase due to discharges during the year / period						
7	Net Normative loan - Closing						
8	Average Normative loan						
9	Weighted average rate of interest						
10	Interest on Loan						

(Petitioner)

Calculation of Interest on Working Capital

Name of the Petitioner _____

Name of the Integrated Mine _____

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Input Cost of Coal/Lignite ¹ Stock for 7 days of Production corresponding to ATQ for the relevant year						
2	Consumption of stores and spare including explosives, lubricants and fuels (@ 15%/20%) ¹ of O&M expenses excluding mining charge of MDO or annual charge of any agency other than MDO						
3	One Month O & M Expenses excluding mining charge of MDO or annual charge of any agency other than MDO						
4	Total Working Capital						
5	Rate of Interest						
6	Interest on Working Capital						

Note:

1. As applicable.

(Petitioner)

**PART- IV
FORM- K****Incidental Expenditure up to date of commencement of
Production and up to Actual/anticipated date of commercial operation****Name of the Petitioner****Name of the Generating Station**

(Amount in Rs. Lakh)

S. No.	Parameters	As on date of commencement of Production	As on actual/anticipated date of commercial operation
A	Head of Expenses:		
1	Employees' Benefits Expenses		
2	Finance Costs		
3	Water Charges		
4	Communication Expenses		
5	Power Charges		
6	Depreciation		
7	Other Office and Administrative Expenses		
8	Others (Please Specify Details)		
9	Other Pre-Operating Expenses		
...		
...		
B	Total Expenses		
	Less: Income from sale of tenders		
	Less: Income from guest house		
	Less: Income recovered from Contractors		
	Less: Interest on Deposits		
		

(Petitioner)

PART -IV
FORM- L

Expenditure under different packages up to date of commencement of Production and up to Actual/anticipated date of commercial operation

Name of the Petitioner _____

Name of the Integrated Mine _____

(Amount in Rs. Lakh)

S. No.	Parameters	As on date of commencement of Production	As on actual/anticipated date of commercial operation
1	Package 1		
2	Package 2		
3	Package 3		
4		
5		
6			

(Petitioner)

**PART- IV
FORM- M****Actual cash expenditure**

Name of the Petitioner _____

Name of the Integrated Mine _____

(Amount in Rs. Lakh)

Particulars	Quarter-I	Quarter-II	Quarter-III	Quarter-n / DOCO
Expenditure towards Gross Block				
Add: Expenditure towards CWIP				
Add: Capital Advances, if any				
Less: Un-discharged liabilities (included above)				
Add/Less: Others				
Payment to contractors / suppliers towards capital assets				
Cumulative payments				

Note: If there is variation between payment and fund deployment justification need to be furnished

(Petitioner)

Statement of Liability Flow

Name of the Petitioner _____

Name of the Integrated Mine _____

Party	Asset/ Work	Year of actual capitalizat ion	Original Liability in case date of commercial operation is prior to 31.3.2019	Liability as on 31.03.2019/date of commercial operation, whichever is later	Discharges (Year wise)	Reversal (Year wise)	Net Liability at end of each year

To be submitted duly audited

(Petitioner)]⁸⁸⁸⁸Inserted *vide* Second Amendment Regulations, 2021 *w.e.f* 01.04.2019


सत्यमेव जयते
भारत का राजपत्र
The Gazette of India

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भाग III-खण्ड 4
PART III-Section 4
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PUBLISHED BY AUTHORITY

No. 83

NEW DELHI, WEDNESDAY, MARCH 12, 2014

CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

No.L-1/144/2013/CERC

Dated 21, February, 2014

NOTIFICATION

In exercise of powers conferred under section 178 of the Electricity Act, 2003 (36 of 2003) read with section 61 thereof and all other powers enabling it in this behalf, and after previous publication, the Central Electricity Regulatory Commission hereby makes the following regulations, namely:

CHAPTER - 1
PRELIMINARY

1. Short title and commencement. (1) These regulations may be called the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

(2) These regulations shall come into force on 1.4.2014, and unless reviewed earlier or extended by the Commission, shall remain in force for a period of five years from 1.4.2014 to 31.3.2019:

Provided that where a project or a part thereof, has been declared under commercial operation before the date of commencement of these regulations and whose

tariff has not been finally determined by the Commission till that date, tariff in respect of such project or such part thereof for the period ending 31.3.2014 shall be determined in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 as amended from time to time.

2. Scope and extent of application. (1) These regulations shall apply in all cases where tariff for a generating station or a unit thereof and a transmission system or an element thereof including communication system used for inter-State transmission of electricity is required to be determined by the Commission under section 62 of the Act read with section 79 thereof.

(2) These regulations shall not apply for determination of tariff in case of the following:

(a) Generating stations or inter-State transmission systems whose tariff has been discovered through tariff based competitive bidding in accordance with the guidelines issued by the Central Government and adopted by the Commission under Section 63 of the Act;

(b) Generating stations based on renewable sources of energy whose tariff is determined in accordance with the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2012, as amended from time to time or any subsequent enactment

thereof.

3. Definitions and Interpretations –In these regulations, unless the context otherwise requires-

- (1) '**Act**' means the Electricity Act, 2003 (36 of 2003);
- (2) '**Additional Capitalisation**' means the capital expenditure incurred, or projected to be incurred after the date of commercial operation of the project and admitted by the Commission after prudence check, in accordance with provisions of Regulation 14 of these regulations;
- (3) '**Auxiliary Energy Consumption**' or '**AUX**' in relation to a period in case of a generating station means the quantum of energy consumed by auxiliary equipment of the generating station, such as the equipment being used for the purpose of operating plant and machinery including switchyard of the generating station and the transformer losses within the generating station, expressed as a percentage of the sum of gross energy generated at the generator terminals of all the units of the generating station:

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

(4) **‘Auditor’** means an auditor appointed by a generating company or a transmission licensee, as the case may be, in accordance with the provisions of sections 224, 233B and 619 of the Companies Act, 1956 (1 of 1956), as amended from time to time or Chapter X of the Companies Act, 2013 (18 of 2013) or any other law for the time being in force;

(5) **‘Bank Rate’** means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;

(6) **‘Beneficiary’** in relation to a generating station covered under clauses (a) and (b) of sub-section 1 of Section 79 of the Act, means a distribution licensee who is purchasing electricity generated at such generating station through a Power Purchase Agreement either directly or through a trading licensee on payment of fixed charges and by scheduling in accordance with the Grid Code:

Provided that where the distribution licensee is procuring power through a trading licensee, the arrangement should be secured through back to back power purchase agreement and power sale agreement:

Provided further that beneficiary shall also include any person who has allocation in inter State Generating Stations;

(7) **‘Block’** in relation to a combined cycle thermal generating station includes

combustion turbine-generator, associated waste heat recovery boiler, connected steam turbine- generator and auxiliaries;

(8) **‘Capital Cost’** means the capital cost as determined in accordance with Regulation 9 of these regulations;

(9) **‘Change In Law’** means occurrence of any of the following events:

(a) enactment, bringing into effect or promulgation of any new Indian law; or

(b) adoption, amendment, modification, repeal or re-enactment of any existing Indian law; or

(c) change in interpretation or application of any Indian law by a competent court, Tribunal or Indian Governmental Instrumentality which is the final authority under law for such interpretation or application; or

(d) Change by any competent statutory authority in any condition or covenant of any consent or clearances or approval or licence available or obtained for the project; or

(e) coming into force or change in any bilateral or multilateral agreement/treaty between the Government of India and any other Sovereign Government having implication for the generating station or the transmission system regulated under these Regulations.

(10) '**Commission**' means the Central Electricity Regulatory Commission referred to in sub-section (1) of section 76 of the Act;

(11) '**Communication System**' includes communication system of Power Grid Corporation of India Ltd. covered under Unified Load Dispatch and Communication (ULD&C) scheme, SCADA, Wide Area Measurement System (WAMS), Fibre Optic Communication system, Remote Terminal Unit, Private Automatic Branch Exchange, Radio Communication System and auxiliary power supply system etc. used for managing inter-state transmission of electricity;

(12) '**Competitive Bidding**' means a transparent process for procurement of equipment, services and works in which bids are invited by the project developer by open advertisement covering the scope and specifications of the equipment, services and works required for the project, and the terms and conditions of the proposed contract as well as the criteria by which bids shall be evaluated, and shall include domestic competitive bidding and international competitive bidding;

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

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

(14) '**Date of Commercial Operation**' or '**COD**' shall have the same meaning as defined in Regulation 4 of these regulations;

(15) '**Declared Capacity**' or '**DC**' in relation to a generating station means, the capability to deliver ex-bus electricity in MW declared by such generating station in relation to any time-block of the day as defined in the Grid Code or whole of the day, duly taking into account the availability of fuel or water, and subject to further qualification in the relevant regulation;

(16) '**De-capitalisation**' for the purpose of the tariff under these regulations, means reduction in Gross Fixed Assets of the project corresponding to the removal/deletion of assets as admitted by the Commission;

(17) '**De-Commissioning**' means removal from service of a generating station or a unit thereof or transmission system including communication system or element thereof, after it is certified by the Central Electricity Authority or any other authorized agency, either on its own or on an application made by the project developer or the beneficiaries or both, that the project cannot be operated due to non performance of the assets on

account of technological obsolescence or uneconomic operation or a combination of these factors;

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

(19) '**Day**' means a calendar day consisting of 24 hours period starting at 0000 hour;

(20) '**Designated ISTS Customers**' or '**DICs**' shall have the same meaning as defined in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 as amended from time to time or subsequent re-enactment thereof;

(21) '**Element**' in respect of a transmission system shall mean an asset which has been distinctively defined under the scope of the project in the Investment Approval;

(22) '**Existing Project**' means a project which has been declared under commercial operation on a date prior to 1.4.2014;

(23) '**Expenditure Incurred**' means the fund, whether the equity or debt or both, actually deployed and paid in cash or cash equivalent, for creation or acquisition of a useful asset and does not include commitments or liabilities for which no payment has been released;

(24) '**Extended Life**' means the life of a generating station or unit thereof or transmission system or element thereof beyond the period of useful life, as may be determined by the Commission on case to case basis;

(25) '**Force Majeure**' for the purpose of these regulations means the event or circumstance or combination of events or circumstances including those stated below which partly or fully prevents the generating company or transmission licensee to complete the project within the time specified in the Investment Approval, and only if such events or circumstances are not within the control the generating company or transmission licensee and could not have been avoided, had the generating company or transmission licensee taken reasonable care or complied with prudent utility practices:

a) Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years; or

(b) Any act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action; or

(c) Industry wide strikes and labour disturbances having a nationwide impact in India;

(26) **'Generating Unit'** in relation to a thermal generating station (other than combined cycle thermal generating station) means steam generator, turbine-generator and auxiliaries, or in relation to a combined cycle thermal generating station, means turbine-generator and auxiliaries; and in relation to a hydro generating station means turbine-generator and its auxiliaries;

(27) **'Grid Code'** means the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 as amended from time to time or subsequent re-enactment thereof;

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

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

(30) **'Generating Station'** means any station for generating electricity, including any building and plant with step-up transformer, switch-gear, switch yard, cables or other appurtenant equipment, if any, used for that purpose and the site thereof; a site intended to be used for a generating station, and any building used for housing the operating staff of a generating station, and where electricity is generated by water-

power, includes penstocks, head and tail works, main and regulating reservoirs, dams and other hydraulic works, but does not in any case include any sub-station;

(31) **‘Indian Governmental Instrumentality’** means the Government of India, Governments of State(where the project is located) and any ministry or department or board or agency or other regulatory or quasi judicial authority controlled by Government of India or Government of State, where the project is located.

(32) **‘Infirm Power’** means electricity injected into the grid prior to the commercial operation of a unit or block of the generating station in accordance with Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009 as amended from time to time;

(33) **‘Installed Capacity’** or **‘IC’** means the summation of the name plate capacities of all the units of the generating station or the capacity of the generating station reckoned at the generator terminals, as may be approved by the Commission from time to time;

(34) **‘Implementation Agreement’** means the agreement, contract or memorandum of understanding, or any such covenant, entered into (i) between transmission licensee and generating station or (ii) between transmission licensee and developer of the associated transmission system for the execution of project in coordinated manner;

(35) **‘Inter-State Generating Station’ or ‘ISGS’** has the meaning as assigned in the Grid Code;

(36) **‘Investment Approval’** means approval by the Board of the generating company or the transmission licensee or Cabinet Committee on Economic Affairs (CCEA) or any other competent authority conveying administrative sanction for the project including funding of the project and the timeline for the implementation of the project.

Provided that the date of Investment Approval shall reckon from the date of the resolution/minutes of the Board/approval by competent authority.

(37) **‘Kilowatt-Hour’ or ‘kWh’** means a unit of electrical energy, measured in one kilowatt or one thousand watts of power produced or consumed over a period of one hour;

(38) **‘Long-Term Transmission Customer’** means a person having a long term transmission service agreement with the transmission licensee including deemed transmission licensee for use of inter-State transmission system by paying transmission charges and the term may be used interchangeably with the term Designated ISTS Customers (DICs);

(39) **Maximum Continuous Rating’ or ‘MCR’** in relation to a generating unit of the thermal generating station means the maximum continuous output at the generator terminals, guaranteed by the manufacturer at rated parameters, and in relation to a

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

(40) **‘New Project’** means the project achieving COD or anticipated to be achieving COD on or after 1.4.2014;

(41) **‘Normative Annual Plant Availability Factor’ or ‘NAPAF’** in relation to a generating station means the availability factor as specified in Regulation 36 and 37 of these regulations for thermal generating station and hydro generating station respectively;

(42) **‘Operation and Maintenance Expenses’ or ‘O&M expenses’** means the expenditure incurred for operation and maintenance of the project, or part thereof, and includes the expenditure on manpower, repairs, maintenance spares, consumables, insurance and overheads but excludes fuel expenses and water charges;

(43) **‘Original Project Cost’** means the capital expenditure incurred by the generating company or the transmission licensee, as the case may be, within the original scope of the project up to the cut-off date as admitted by the Commission;

(44) **‘Plant Availability Factor’ or ‘(PAF)’** 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 in MW less the normative auxiliary energy consumption;

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

$$N$$

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

$i=1$

Where,

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

SG_i = Scheduled Generation in MW for the i^{th} time block of the period,

N = Number of time blocks during the period, and

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

(46) '**Project**' means a generating station or a transmission system including communication system, as the case may be, and in case of a hydro generating station includes all components of generating facility such as dam, intake water conductor

system, power generating station and generating units of the scheme, as apportioned to power generation and in case of thermal generating stations does not include mining if it is a pit head project and dedicated captive coal mine;

(47) **‘Procedure Regulations’** means the Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004, as amended from time to time or any statutory re-enactment thereof;

(48) **‘Prudence Check’** means scrutiny of reasonableness of capital expenditure incurred or proposed to be incurred, financing plan, use of efficient technology, cost and time over-run and such other factors as may be considered appropriate by the Commission for determination of tariff. While carrying out the Prudence Check, the Commission shall look into whether the generating company or transmission licensee has been careful in its judgments and decisions for executing the project or has been careful and vigilant in executing the project;

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

(50) **‘Run-of-River generating station’** means a hydro generating station which does not have upstream pondage;

- (51) **'Run-of-River generating station with pondage'** means a hydro generating station with sufficient pondage for meeting the diurnal variation of power demand;
- (52) **'Rated Voltage'** means the manufacturer's design voltage at which the transmission system is designed to operate and includes such lower voltage at which any transmission line is charged or for the time being charged, in consultation with long-term transmission customers /DICs;
- (53) **'Regular Service'** means putting into use a transmission system or element thereof after successful trial operation and a certificate to that effect has been issued by the concerned Regional Load Dispatch Centre;
- (54) **'Scheduled Commercial Operation Date or SCOD'** shall mean the date(s) of commercial operation of a generating station or generating unit or block thereof or transmission system or element thereof as indicated in the Investment Approval or as agreed in power purchase agreement or transmission service agreement as the case may be, whichever is earlier;
- (55) **'Scheduled Energy'** means the quantum of energy scheduled by the concerned Load Despatch Centre to be injected into the grid by a generating station for a given time period;

(56) '**Scheduled Generation**' or '**SG**' at any time or for any period or time block means schedule of ex-bus generation in MW or MWh, given by the concerned Load Despatch Centre;

Note:

For the open cycle 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. In such an event of reduction of scheduled generation of gas turbine generating station, the corresponding drawal schedule of beneficiaries shall be corrected in proportion to their scheduled drawal with adjustment of transmission losses on post facto basis.

(57) '**Sharing Regulations**' means Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses in inter-State Transmission System) Regulations, 2010 as amended from time to time;

(58) '**Small gas turbine generating station**' means and includes open cycle gas turbine or combined cycle generating station with gas turbines in the capacity range of 50 MW or below;

(59) '**Start Date or Zero Date**' means the date indicated in the Investment Approval for commencement of implementation of the project and where no date has been indicated, the date of investment approval shall be deemed to be Start Date or Zero Date;

(60) '**Storage type generating station**' means a hydro generating station associated with large storage capacity to enable variation of generation of electricity according to demand;

(61) '**Thermal Generating Station**' means a generating station or a unit thereof that generates electricity using fossil fuels such as coal, lignite, gas, liquid fuel or combination of these as its primary source of energy;

(62) '**Trial Run**' or '**Trial Operation**' in relation to transmission system or a generating station shall have the same meaning as specified in Regulation 5 of these regulations;

(63) '**Transmission Service Agreement**' means the agreement entered into between the transmission licensee and the designated inter-State transmission customers in accordance with the Sharing Regulations and any other agreement between the

transmission licensee and the long term transmission customer where the payment of transmission charges are not made through the POC mechanism under Sharing Regulations;

(64) **‘Transmission Line’** shall have the same meaning as defined in sub-section (72) of section 2 of the Act;

(65) **‘Transmission System’** means a line or a group of lines with or without associated sub-station, equipment associated with transmission lines and sub-stations;

(66) **‘Sub-Station’** shall have the same meaning as defined in sub-section (69) of section 2 of the Act;

(67) **‘Useful life’** in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:

- | | |
|--|----------|
| (a) Coal/Lignite based thermal generating station | 25 years |
| (b) Gas/Liquid fuel based thermal generating station | 25 years |
| (c) AC and DC sub-station | 25 years |
| (d) Gas Insulated Substation (GIS) | 25 years |
| (e) Hydro generating station including pumped
Storage hydro generating stations | 35 years |
| (f) Transmission line (including HVAC & HVDC) | 35 years |
| (g) Communication system | 15 years |

Provided that the useful life for AC and DC substations and GIS for which Notice Inviting Tender is floated on or after 01.04.2014 shall be considered as 35 years.

Provided further that the extension of life of the projects beyond the completion of their useful life shall be decided by the Commission;

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

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

CHAPTER – 2

GENERAL

4. Date of Commercial Operation: The date of commercial operation of a generating station or unit or block thereof or a transmission system or element thereof shall be determined as under:

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

Provided that

- (i) where the beneficiaries have been tied up for purchasing power from the generating station, the trial run shall commence after seven days notice by the generating company to the beneficiaries and scheduling shall commence from 0000 hr after completion of the trial run:
- (ii) the generating company shall certify to the effect that the generating station meets the key provisions of the technical standards of Central Electricity Authority (Technical Standards for Construction of Electrical plants and electric lines) Regulations, 2010 and Grid Code:

- (iii) the certificate shall be signed by CMD/CEO/MD of the company subsequent to its approval by the Board of Directors in the format enclosed at Appendix VI and a copy of the certificate shall be submitted to the Member Secretary, (concerned Regional Power Committee) and concerned RLDC before declaration of COD:

(2) Date of commercial operation in relation to a generating unit of hydro generating station including pumped storage hydro generating station shall mean the date declared by the generating company from 0000 hour after the scheduling process in accordance with the Grid code is fully implemented, and in relation to the generating station as a whole, the date declared by the generating company after demonstrating peaking capability corresponding to installed capacity of the generating station through a successful trial run:

Provided that:

- (i) where beneficiaries have been tied up for purchasing power from generating station, scheduling process for a generating unit of the generating station or demonstration of peaking capability corresponding to installed capacity of the generating station through a successful trial run shall commence after seven days notice by the generating company to the beneficiaries and scheduling shall commence from 0000 hr after completion of trial run:
- (ii) the generating company shall certify to the effect that the generating station meets key provisions of the technical standards of Central Electricity Authority

(Technical Standards for Construction of Electrical plants and electric lines)
Regulations, 2010 and Grid code:

- (iii) the certificate shall be signed by CMD/CEO/MD of the company subsequent to its approval by the Board of Directors in the format enclosed at Appendix VI and a copy of the certificate shall be submitted to the Member Secretary, (concerned Regional Power Committee) and concerned RLDC before declaration of COD:
- (iv) in case a hydro generating station with pondage or storage is not able to demonstrate peaking capability corresponding to the installed capacity for the reasons of insufficient reservoir or pond level, the date of commercial operation of the last unit of the generating station shall be considered as the date of commercial operation of the generating station as a whole, and it will be mandatory for such hydro generating station to demonstrate peaking capability equivalent to installed capacity of the generating unit or the generating station as and when such reservoir/pond level is achieved:
- (v) if a run-of-river hydro generating station or a generating unit thereof is declared under commercial operation during lean inflows period when the water inflow is insufficient for such demonstration of peaking capability, it shall be mandatory for such hydro generating station or generating unit to demonstrate peaking capability equivalent to installed capacity as and when sufficient water inflow is available.

(3) Date of commercial operation in relation to a transmission system shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end:

Provided that:

- (i) where the transmission line or substation is dedicated for evacuation of power from a particular generating station, the generating company and transmission licensee shall endeavour to commission the generating station and the transmission system simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement in accordance with Regulation 12(2) of these Regulations:
 - (ii) in case a transmission system or an element thereof is prevented from regular service for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system, the transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof.
- (4) Date of commercial operation in relation to a communication system or element

thereof shall mean the date declared by the transmission licensee from 0000 hour of which a communication system or element is put into service after completion of site acceptance test including transfer of voice and data to respective control centre as certified by the respective Regional Load Dispatch Centre.

5. Trial Run and Trial Operation.-(1) Trial Run in relation to generating station or unit thereof shall mean the successful running of the generating station or unit thereof at maximum continuous rating or installed capacity for continuous period of 72 hours in case of unit of a thermal generating station or unit thereof and 12 hours in case of a unit of a hydro generating station or unit thereof:

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

(2) Trial operation in relation to a transmission system or an element thereof shall mean successful charging of the transmission system or an element thereof for 24 hours at continuous flow of power, and communication signal from sending end to receiving end and with requisite metering system, telemetry and protection system in service enclosing certificate to that effect from concerned Regional Load Dispatch Centre.

CHAPTER - 3

PROCEDURE FOR TARIFF DETERMINATION

6. Tariff determination

(1) Tariff in respect of a generating station may be determined for the whole of the generating station or stage or generating unit or block thereof, and tariff in respect of a transmission system may be determined for the whole of the transmission system or transmission line or sub-station or communication system forming part of transmission system:

Provided that:

- (i) where all the generating units of a stage of a generating station or all elements of a transmission system have been declared under commercial operation prior to 1.4.2014, the generating company or the transmission licensee, as the case may be, shall file consolidated petition in respect of the entire generating station or transmissions system for the purpose of determination of tariff for the period 2014-15 to 2018-19:
- (ii) in case of commercial operation of the generating station or transmission system including communication system on or after 1.4.2014, the generating company or transmission licensee shall file a consolidated petition combining all the units of the generating station or file appropriate petition for transmission elements of the transmission system which are likely to be commissioned during next six

months from the date of application:

- (iii) the tariff of the existing communication system forming part of transmission system shall be as per the methodology followed by the Commission prior to 1.4.2014.

(2) For the purpose of determination of tariff, the capital cost of a project may be broken up into stages, blocks, units, transmission lines and sub-stations, forming part of the project, if required:

Provided that where break-up of the capital cost of the project for different stages or units or blocks and for transmission lines or sub-stations is not available and in case of on-going projects, the common facilities shall be apportioned on the basis of the installed capacity of the units, line length and number of bays:

Provided further that in relation to multi-purpose hydro schemes, with irrigation, flood control and power components, the capital cost chargeable to the power component of the scheme only shall be considered for determination of tariff.

(3) Where an existing transmission project has been granted licence under Section 14 of the Act read with Regulation 6(c) of the Central Electricity Regulatory Commission (Terms and Conditions of grant of Transmission Licence for inter-State Transmission of electricity and related matters) Regulations, 2009, the tariff of such project shall be applicable from the date of grant of transmission licence or from the date as indicated in

the transmission licence, as the case may be. In such cases, the applicant shall file petition as per **Annexure-I**, clearly demarcating the assets which form the part of regulated business of generation and transmission, the value of such assets, source of funding etc. duly certified by an auditor.

(4) In case of multi-purpose hydro generation scheme with irrigation, flood control and power components, the capital cost chargeable to the power component of the scheme only shall be considered for determination of tariff.

(5) Where only a part of the generation capacity of a generating station is tied up for supplying power to the beneficiaries through long term power purchase agreement and the balance part of the generation capacity have not been tied up for supplying power to the beneficiaries, the tariff of the generating station shall be determined with reference to the capital cost of the entire project, but the tariff so determined shall be applicable corresponding to the capacity contracted for supply to the beneficiaries.

7. Application for determination of tariff:

(1) The generating company may make an application for determination of tariff for new generating station or unit thereof in accordance with the Procedure Regulations, in respect of the generating station or generating units thereof within 180 days of the anticipated date of commercial operation.

(2) The transmission licensee may make an application for determination of tariff for new transmission system including communication system or element thereof as the case may be in accordance with the Procedure Regulations, in respect of the transmission system or elements thereof anticipated to be commissioned within 180 days from the date of filing of the petition.

(3) In case of an existing generating station or transmission system including communication system or element thereof, the application shall be made not later than 180 days from the date of notification of these regulations based on admitted capital cost including any additional capital expenditure already admitted up to 31.3.2014 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2014-15 to 2018-19.

(4) The generating company or the transmission licensee, as the case may be, shall make an application as per **Annexure-I** of these regulations, for determination of tariff based on capital expenditure incurred duly certified by the auditors or projected to be incurred up to the date of commercial operation and additional capital expenditure incurred duly certified by the auditors or projected to be incurred during the tariff period of the generating station or the transmission system as the case may be:

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

(5) If the petition is inadequate in any respect as required under **Annexure-I** of these regulations, the application shall be returned to the generating company or transmission licensee as the case may be, for resubmission of the petition within one month after rectifying the deficiencies as may be pointed out by the staff of the Commission.

(6) If the information furnished in the petition is in accordance with the regulations and is adequate for carrying out prudence check of the claims made, the Commission shall consider the suggestions and objections, if any, received from the respondents within one month from the date of filing of the petition and any other person including the consumers or consumer associations. The Commission shall issue the tariff order after hearing the petitioner, the respondents and any other person specifically permitted by the Commission.

(7) In case of the new projects, the generating company or the transmission licensee, as the case may be, may be allowed tariff by the Commission based on the projected capital expenditure from the anticipated COD in accordance with Regulation 6 of these regulations:

Provided that :

- (i) the Commission may grant tariff upto 90% of the annual fixed charges claimed in respect of the transmission system or element thereof based on the management certificate regarding the capital cost for the purpose of inclusion in the POC charges in accordance with the CERC (Sharing of Inter State Transmission charges and losses), Regulation, 2010 as amended from time to time:

[(i a)The difference between the tariff determined in accordance with proviso (i) above and the tariff determined in accordance with Regulation 6 of these regulations shall be recovered or refunded with simple interest at the rate equal to the bank rate as on 1st April of the respective year, in three equal monthly instalments.]¹
- (ii) if the date of commercial operation is delayed beyond 180 days from the date of issue of tariff order in terms of clause (6) of this regulation, the tariff granted shall be deemed to have been withdrawn and the generating company or the transmission licensee shall be required to file a fresh application for determination of tariff after the date of commercial operation of the project:
- (iii) where the capital cost considered in tariff by the Commission on the basis of projected capital cost as on COD or the projected additional capital expenditure exceeds the actual capital cost incurred on year to year basis by more than 5%, the generating company or the transmission licensee shall refund to the beneficiaries or the long term transmission customers /DICs as the case may be,

¹ Added vide First Amendment Regulations, 2015 w.e.f. 24.11.2015

the excess tariff recovered corresponding to excess capital cost, as approved by the Commission along with interest at 1.20 times of the bank rate as prevalent on 1st April of respective year:

- (iv) where the capital cost considered in tariff by the Commission on the basis of projected capital cost as on COD or the projected additional capital expenditure falls short of the actual capital cost incurred on year to year basis by more than 5%, the generating company or the transmission licensee shall be entitled to recover from the beneficiaries or the long term transmission customers /DICs as the case may be, the shortfall in tariff corresponding to reduction in capital cost, as approved by the Commission along with interest at 0.80 times of bank rate as prevalent on 1st April of respective year.

(8) In case of the existing projects, the generating company or the transmission licensee, as the case may be, may be allowed tariff by the Commission based on the admitted capital cost as on 1.4.2014 and projected additional capital expenditure for the respective years of the tariff period 2014-15 to 2018-19 in accordance with the Regulation 6:

Provided that:

- (i) the generating company or the transmission licensee, as the case may be, shall continue to bill the beneficiaries or the transmission customers / DICs at the tariff approved by the Commission and applicable as on 31.3.2014 for the period

starting from 1.4.2014 till approval of tariff by the Commission in accordance with these regulations:

- [(i a) The difference between the tariff determined in accordance with proviso (i) above and the tariff determined in accordance with Regulation 6 of these regulations shall be recovered or refunded with simple interest at the rate equal to the bank rate as on 1st April of the respective year, in three equal monthly instalments.]²
- (ii) where the capital cost considered in tariff by the Commission on the basis of projected capital cost as on COD or the projected additional capital expenditure submitted by the generating company or the transmission licensee, as the case may be, exceeds the actual capital cost incurred on year to year basis by more than 5%, the generating company or the transmission licensee shall refund to the beneficiaries or the long term transmission customers /DICs as the case may be, the excess tariff recovered corresponding to excess capital cost, as approved by the Commission along with interest at 1.20 times of the bank rate as prevalent on April 1 of respective year:
- (iii) where the capital cost considered in tariff by the Commission on the basis of projected capital cost as on COD or the projected additional capital expenditure submitted by the generating company or the transmission licensee, as the case may be, falls short of the actual capital cost incurred on year to year basis by more than 5%, the generating company or the transmission licensee shall be

² Added vide First Amendment Regulations, 2015 w.e.f. 24.11.2015

entitled to recover from the beneficiaries or the long term transmission customers /DICs as the case may be, the shortfall in tariff corresponding to reduction in capital cost, as approved by the Commission along with interest at 0.80 times of bank rate as prevalent on April 1 of respective year.

8. Truing up

(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2019, as admitted by the Commission after prudence check at the time of truing up:

Provided that the generating company or the transmission licensee, as the case may be, shall make an application for interim truing up of capital expenditure including additional capital expenditure in FY 2016-17.

(2) The generating station shall carry out truing up of tariff of generating station based on the performance of following Controllable parameters:

a) Controllable Parameters :

- i) Station Heat Rate;
- ii) Secondary Fuel Oil Consumption;
- iii) Auxiliary Energy Consumption; and
- iv) Re-financing of Loan.

(3) The Commission shall carry out truing up of tariff of generating station based on the performance of following Uncontrollable parameters:

- i) Force Majeure;
- ii) Change in Law; and
- iii) Primary Fuel Cost.

(4) The Transmission Licensee shall carry out truing up of tariff of transmission system based on the controllable parameter of Re-Financing of loans:

(5) The Commission shall carry out truing up of tariff of transmission licensee based on the performance of following Uncontrollable parameters:

- (i) Force Majeure; and
- (ii) Change in Law.

(6) The financial gains by a generating company or the transmission licensee, as the case may be on account of controllable parameters shall be shared between generating company/transmission licensee and the beneficiaries on monthly basis with annual reconciliation.[The financial gains computed as per the following formulae in case of generating station other than hydro generating stations on account of operational

parameters as shown in Clause 2 (a) (i) to (iii) of this Regulation shall be shared in the ratio of 60:40 between the generating stations and beneficiaries:]³

$$\text{Net Gain} = (\text{ECR}_N - \text{ECR}_A) \times \text{Scheduled Generation}$$

Where,

ECR_N – Normative Energy Charge Rate computed on the basis of norms specified for Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption.

ECR_A – Actual Energy Charge Rate computed on the basis of actual SHR, Auxiliary Consumption and Secondary Fuel Oil Consumption for the month.

[Provided that in case of hydro generating stations, the net gain on account of Actual Auxiliary Energy Consumption being less than the Normative Auxiliary Energy Consumption, shall be computed as per following formulae provided the saleable scheduled generation is more than the saleable design energy and shall be shared in the ratio of 60:40 between generating station and beneficiaries:

- (i) When saleable scheduled generation is more than saleable design energy on the basis of normative auxiliary consumption and less than or equal to saleable design energy on the basis of actual auxiliary consumption:

Net gain (Million Rupees)=

(Saleable Scheduled generation in MUs-Saleable Design energy on

³ Substituted vide First Amendment Regulations, 2015 w.e.f. 24.11.2015

the basis of normative auxiliary consumption in MUs) x 0.90

- (ii) When saleable scheduled generation is more than saleable design energy on the basis of actual auxiliary consumption:

Net gain (Million Rupees)=

{Saleable Scheduled generation in MUs- [(Saleable Scheduled Generation in MUs x (100-normative AEC in %)/(100-actual AEC in %))x 0.90]⁴

Provided that in case of financial gains on account of Clause 2 (a)(iv) and Clause 4 of this Regulation shall be shared in accordance with Clause 7 of Regulation 26 of these regulations.

(7) The financial gains and losses by a generating company or the transmission licensee, as the case may be, on account of uncontrollable parameters shall be passed on to beneficiaries of the generating company or to the long term transmission customers/DICs of transmission system, as the case may be.

(8) The generating company or the transmission licensee as the case may be, shall carry out the truing up of grossed up rate of return on equity in accordance with Clause 3 of Regulation 25 of these regulations.

⁴ Added vide First Amendment Regulations, 2015 w.e.f. 24.11.2015

(9) The generating company or the transmission licensee as the case may be, shall make an application, as per **Annexure-I** to these regulations, for carrying out truing up exercise in respect of the generating station or a unit or block thereof or the transmission system or the transmission lines or sub-stations by 31.10.2019.

(10) The generating company or the transmission licensee as the case may be, shall submit for the purpose of truing up, details of actual capital expenditure and additional capital expenditure incurred for the period from 1.4.2014 to 31.3.2019, duly audited and certified by the auditor.

(11) Where after the truing up, the tariff recovered exceeds the tariff approved by the Commission under these regulations, the generating company or the transmission licensee, shall refund to the beneficiaries or the long term transmission customers /DICs, as the case may be, the excess amount so recovered as specified in the Clause 13 of this regulation

(12) Where after the truing up, the tariff recovered is less than the tariff approved by the Commission under these regulations, the generating company or the transmission licensee shall recover from the beneficiaries or the long term transmission customers /DICs, as the case may be, the under-recovered amount as specified in the Clause 13 of this regulation.

(13) The amount under-recovered or over-recovered, along with simple interest at the rate equal to the bank rate as on 1st April of the respective year, shall be recovered or refunded by the generating company or the transmission licensee, as the case may be, in six equal monthly instalments starting within three months from the date of the tariff order issued by the Commission.

CHAPTER - 4

COMPUTATION OF CAPITAL COST AND CAPITAL STRUCTURE

- 9. Capital Cost:** (1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.
- (2) The Capital Cost of a new project shall include the following:
- (a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
 - (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
 - [(bi) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period shall form part of the capital cost.]⁵
 - (c) Increase in cost in contract packages as approved by the Commission;
 - (d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;

⁵ Added vide First Amendment Regulations, 2015 w.e.f. 24.11.2015

- (e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;
- (f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;
- (g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
- (h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.

(3) The Capital cost of an existing project shall include the following:

- (a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;
- (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
- (c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.

(4) The capital cost in case of existing/new hydro generating station shall also include:

- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) project in the affected area.

(5) The capital cost with respect to thermal generating station, incurred or projected to be incurred on account of the Perform, Achieve and Trade (PAT) scheme of Government of India will be considered by the Commission on case to case basis and shall include:

- a) cost of plan proposed by developer in conformity with norms of PAT Scheme; and
- b) sharing of the benefits accrued on account of PAT Scheme.

(6) The following shall be excluded or removed from the capital cost of the existing and new project:

- (a) The assets forming part of the project, but not in use;
- (b) Decapitalisation of Asset;
- (c) In case of hydro generating station any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State government by following a two stage transparent process of bidding; and
- (d) the proportionate cost of land which is being used for generating power from generating station based on renewable energy:

Provided that any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation;

10. Prudence Check of Capital Expenditure: The following principles shall be adopted for prudence check of capital cost of the existing or new projects:

(1) In case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out taking into consideration the benchmark norms specified/to be specified by the Commission from time to time:

Provided that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the capital expenditure, financing plan, interest during construction, incidental expenditure during construction for its reasonableness, use of efficient technology, cost over-run and time over-run, competitive bidding for procurement and such other matters as may be considered appropriate by the Commission for determination of tariff:

Provided further that in cases where benchmark norms have been specified, the generating company or transmission licensee shall submit the reasons for exceeding the capital cost from benchmark norms to the satisfaction of the Commission for allowing cost above benchmark norms.

(2) The Commission may issue new guidelines or revise the existing guidelines for vetting of capital cost of hydro-electric projects by an independent agency or an expert and in that event the capital cost as vetted by such agency or expert may be considered by the Commission while determining the tariff for the hydro generating station.

(3) The Commission may issue new guidelines or revise the existing guidelines for scrutiny and approval of commissioning schedule of the hydro-electric projects in accordance with the tariff policy issued by the Central Government under Section 3 of the Act from time to time which shall be considered for prudence check.

(4) Where the power purchase agreement entered into between the generating company and the beneficiaries provides for ceiling of actual capital expenditure, the Commission shall take into consideration such ceiling for determination of tariff for prudence check of capital cost.

11. Interest during construction (IDC), Incidental Expenditure during Construction (IEDC)

(A) Interest during Construction (IDC):

(1) Interest during construction shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds upto SCOD.

(2) In case of additional costs on account of IDC due to delay in achieving the SCOD, the generating company or the transmission licensee as the case may be, shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds:

Provided that if the delay is not attributable to the generating company or the transmission licensee as the case may be, and is due to uncontrollable factors as specified in Regulation 12 of these regulations, IDC may be allowed after due prudence check:

Provided further that only IDC on actual loan may be allowed beyond the SCOD to the extent, the delay is found beyond the control of generating company or the transmission licensee, as the case may be, after due prudence and taking into account prudent phasing of funds.

(B) Incidental Expenditure during Construction (IEDC):

(1) Incidental expenditure during construction shall be computed from the zero date and after taking into account pre-operative expenses upto SCOD:

Provided that any revenue earned during construction period up to SCOD on account of interest on deposits or advances, or any other receipts may be taken into account for reduction in incidental expenditure during construction.

(2) In case of additional costs on account of IEDC due to delay in achieving the SCOD, the generating company or the transmission licensee as the case may be, shall be required to furnish detailed justification with supporting documents for such delay including the details of incidental expenditure during the period of delay and liquidated damages recovered or recoverable corresponding to the delay:

Provided that if the delay is not attributable to the generating company or the transmission licensee, as the case may be, and is due to uncontrollable factors as specified in regulation 12, IEDC maybe allowed after due prudence check:

Provided further that where the delay is attributable to an agency or contractor or supplier engaged by the generating company or the transmission licensee, the liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost.

(3) In case the time over-run beyond SCOD is not admissible after due prudence, the increase of capital cost on account of cost variation corresponding to the period of time over run may be excluded from capitalization irrespective of price variation provisions in the contracts with supplier or contractor of the generating company or the transmission licensee.

12. Controllable and Uncontrollable factors: The following shall be considered as controllable and uncontrollable factors leading to cost escalation impacting Contract Prices, IDC and IEDC of the project:

(1) The “controllable factors” shall include but shall not be limited to the following:

- a) Variations in capital expenditure on account of time and/or cost over-runs on account of land acquisition issues;

- b) Efficiency in the implementation of the project not involving approved change in scope of such project, change in statutory levies or force majeure events; and
- c) Delay in execution of the project on account of contractor, supplier or agency of the generating company or transmission licensee.

(2) The “uncontrollable factors” shall include but shall not be limited to the following:

- i. Force Majeure events; and
- ii. Change in law.

Provided that no additional impact of time overrun or cost over-run shall be allowed on account of non-commissioning of the generating station or associated transmission system by SCOD, as the same should be recovered through Implementation Agreement between the generating company and the transmission licensee:

Provided further that if the generating station is not commissioned on the SCOD of the associated transmission system, the generating company shall bear the IDC [and IEDC]⁶ or transmission charges if the transmission system is declared under commercial operation by the Commission in accordance with second proviso of Clause 3 of Regulation 4 of these regulations till the generating station is commissioned:

Provided also that if the transmission system is not commissioned on SCOD of the generating station, the transmission licensee shall arrange the evacuation from the generating station at its own arrangement and cost till the associated transmission

⁶ Inserted vide First Amendment Regulations, 2015 w.e.f. 24.11.2015

system is commissioned.

13. Initial Spares: Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:

(a)	Coal-based/lignite-fired thermal generating stations	-	4.0%
(b)	Gas Turbine/Combined Cycle thermal generating stations	-	4.0%
(c)	Hydro generating stations including pumped storage hydro generating station.	-	4.0%
(d)	Transmission system		
(i)	Transmission line	-	1.00%
(ii)	Transmission Sub-station (Green Field)	-	4.00%
(iii)	Transmission Sub-station (Brown Field)	-	6.00%
(iv)	Series Compensation devices and HVDC Station	-	4.00%
(v)	Gas Insulated Sub-station (GIS)	-	5.00%
(vi)	Communication system	-	3.5%

Provided that:

- i. where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:
- ii. where the generating station has any transmission equipment forming part of the

generation project, the ceiling norms for initial spares for such equipments shall be as per the ceiling norms specified for transmission system under these regulations:

- iii. once the transmission project is commissioned, the cost of initial spares shall be restricted on the basis of plant and machinery cost corresponding to the transmission project at the time of truing up:
- iv. for the purpose of computing the cost of initial spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the break up of head wise IDC & IEDC in its tariff application.

14. Additional Capitalisation and De-capitalisation:

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

- (i) Undischarged liabilities recognized to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and

- (v) Change in law or compliance of any existing law:

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

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

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

(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be

incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

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

agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;

- (viii) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;
- (ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and

- (x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialisation of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:

Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2014:

Provided further that any capital expenditure other than that of the nature specified above in (i) to (iv) in case of coal/lignite based station shall be met out of compensation allowance:

Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M), repairs and maintenance under O&M expenses and Compensation Allowance, same expenditure cannot be claimed under this regulation.

- (4) In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place, duly taking into

consideration the year in which it was capitalised.

15. Renovation and Modernisation: (1) The generating company or the transmission licensee, as the case may be, for meeting the expenditure on renovation and modernization (R&M) for the purpose of extension of life beyond the originally recognised useful life for the purpose of tariff of the generating station or a unit thereof or the transmission system or an element thereof, shall make an application before the Commission for approval of the proposal with a Detailed Project Report giving complete scope, justification, cost-benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost including foreign exchange component, if any, and any other information considered to be relevant by the generating company or the transmission licensee.

(2) Where the generating company or the transmission licensee, as the case may be, makes an application for approval of its proposal for renovation and modernisation, the approval shall be granted after due consideration of reasonableness of the cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, and such other factors as may be considered relevant by the Commission.

(3) In case of gas/ liquid fuel based open/ combined cycle thermal generating station, any expenditure which has become necessary for renovation of gas

turbines/steam turbine after 25 years of operation from its COD and an expenditure necessary due to obsolescence or non-availability of spares for efficient operation of the stations shall be allowed :

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

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

16. Special Allowance for Coal-based/Lignite fired Thermal Generating station:

(1) In case of coal-based/lignite fired thermal generating station, the generating company, instead of availing R&M may opt to avail a 'special allowance' in accordance with the norms specified in this regulation, as compensation for meeting the requirement of expenses including renovation and modernisation beyond the useful life of the generating station or a unit thereof, and in such an event, revision of the capital

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

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

(2) The Special Allowance shall be @ Rs. 7.5 lakh/MW/year for the year 2014-15 and thereafter escalated @ 6.35% every year during the tariff period 2014-15 to 2018-19, unit-wise from the next financial year from the respective date of the completion of useful life with reference to the date of commercial operation of the respective unit of generating station:

Provided that in respect of a unit in commercial operation for more than 25 years as on 1.4.2014, this allowance shall be admissible from the year 2014-15:

Provided further that the special allowance for the generating stations, which, in its discretion, has already availed of a 'special allowance' in accordance with the norms specified in clause (4) of regulations 10 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff Determination) Regulations, 2009, shall be allowed Special Allowance by escalating the special allowance allowed for the year 2013-14 @ 6.35% every year during the tariff period 2014-15 to 2018-19.

(3) In the event of granting special allowance by the Commission, the expenditure

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

17. Compensation Allowance:

- (1) In case of coal-based or lignite-fired thermal generating station or a unit thereof, a separate compensation allowance shall be admissible to meet expenses on new assets of capital nature which are not admissible under Regulation 14 of these regulations, and in such an event, revision of the capital cost shall not be allowed on account of compensation allowance but the compensation allowance shall be allowed to be recovered separately.
- (2) The Compensation Allowance shall be allowed in the following manner from the year following the year of completion of 10, 15, or 20 years of useful life:

Years of Operation	Compensation Allowance (Rs lakh/MW/year)
0-10	Nil
11-15	0.20
16-20	0.50
21-25	1.00

18. **Sale of Infirm Power:** Supply of infirm power shall be accounted as deviation and shall be paid for from the regional deviation settlement fund accounts in

accordance with the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related matters) Regulations, 2014, as amended from time to time or any subsequent re-enactment thereof:

Provided that any revenue earned by the generating company from supply of infirm power after accounting for the fuel expenses shall be applied in adjusting the capital cost accordingly.

19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.

Explanation-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such

premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) The generating company or the transmission licensee shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt : equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of

tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.

CHAPTER - 5

TARIFF STRUCTURE

20. Components of Tariff:(1) The tariff for supply of electricity from a thermal generating station shall comprise two parts, namely, capacity charge (for recovery of annual fixed cost consisting of the components as specified in Regulation 21 of these regulations) and energy charge (for recovery of primary and secondary fuel cost and limestone cost where applicable).

(2) The tariff for supply of electricity from a hydro generating station shall comprise capacity charge and energy charge to be derived in the manner specified in Regulation 31 of these regulations, for recovery of annual fixed cost (consisting of the components referred to in Regulation 21) through the two charges.

(3) The tariff for transmission of electricity on inter-State transmission system shall comprise transmission charge for recovery of annual fixed cost consisting of the components specified in Regulation 21 of these regulations.

21. Capacity Charges: The Capacity charges shall be derived on the basis of annual fixed cost. The annual fixed cost (AFC) of a generating station or a transmission system including communication system shall consist of the following components:

- (a) Return on equity;
- (b) Interest on loan capital;
- (c) Depreciation;
- (d) Interest on working capital; and
- (e) Operation and maintenance expenses:

Provided that special allowance in lieu of R&M where opted in accordance to Regulation 16 and/or separate compensation allowance in accordance to Regulation 17, wherever applicable shall be recovered separately and shall not be considered for computation of working capital.

22. Energy Charges: Energy charges shall be derived on the basis of the landed fuel cost (LFC) of a generating station (excluding hydro) and shall consist of the following cost:

- (a) Landed Fuel Cost of primary fuel; and
- (b) Cost of secondary fuel oil consumption:

Provided that any refund of taxes and duties along with any amount received on account of penalties from fuel supplier shall have to be adjusted in fuel cost.

23. Landed Fuel Cost for Tariff Determination: The landed fuel cost of primary

fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months, and in the absence of landed costs for the three preceding months, latest procurement price of primary fuel and secondary fuel for the generating station, before the start of the tariff period for existing stations and immediately preceding three months in case of new generating stations shall be taken into account.

[23A. Tariff Determination of Gas based generating stations:The tariff of gas based generating stations covered under the “Scheme for Utilization of Gas based power generation capacity” issued by the Government of India, Ministry of Power vide Office Memorandum No. 4/2/2015-Th.1 dated 27.3.2015 shall be determined in due consideration of the provisions of that scheme in deviation of the relevant regulations]⁷

⁷Added vide First Amendment dated 24.11.2015 w.e.f. 1.6.2015 and shall be applicable for the years 2015-16 and 2016-17 unless extended further.

CHAPTER – 6

COMPUTATION OF ANNUAL FIXED COST

24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that:

- i. in case of projects commissioned on or after 1st April, 2014, an additional return of **0.50 %** shall be allowed, if such projects are completed within the timeline specified in **Appendix-I**:
- ii. the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:
- iii. additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:
- iv. the rate of return of a new project shall be reduced by 1% for such period as may

be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:

- v. as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:
- vi. additional RoE shall not be admissible for transmission line having length of less than 50 kilometers.

25. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. [The actual tax on income from other business streams including deferred tax liability (i.e. income on business other than business of generation or transmission, as the case may be) shall not be considered for the calculation of effective tax rate.]⁸.

⁸Substituted vide First Amendment Regulations, 2015 w.e.f. 24.11.2015

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.

Illustration.-

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess:

$$\text{Rate of return on equity} = 15.50 / (1-0.2096) = 19.610\%$$

(ii) In case of generating company or the transmission licensee paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from generation or transmission business for FY 2014-15 is Rs 1000 crore.

(b) Estimated Advance Tax for the year on above is Rs. 240 crore.

(c) Effective Tax Rate for the year 2014-15 = Rs. 240 Crore/Rs. 1000 Crore =
24%

(d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/DICs as the case may be on year to year basis.

26. Interest on loan capital: (1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

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

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.

27. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication

system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

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

[Provided that the salvage value for IT equipment and software shall be considered Nil and 100 % value of the assets shall be considered depreciable.]⁹

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-II** to these regulations for the assets of the generating station and transmission system:

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

⁹ Added vide First Amendment Regulations, 2015 w.e.f. 24.11.2015

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.

(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services.

28. Interest on Working Capital :(1) The working capital shall cover:

(a) Coal-based/lignite-fired thermal generating stations

(i) Cost of coal or lignite and limestone towards stock, if applicable, for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;

(ii) Cost of coal or lignite and limestone for 30 days for generation corresponding to

the normative annual plant availability factor;

(iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;

(iv) Maintenance spares @ 20% of operation and maintenance expenses specified in Regulation 29;

(v) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the normative annual plant availability factor; and

(vi) Operation and maintenance expenses for one month.

(b) Open-cycle Gas Turbine/Combined Cycle thermal generating stations

(i) Fuel cost for 30 days corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;

(ii) Liquid fuel stock for 15 days corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel, cost of main liquid fuel duly taking into account mode of operation of the generating stations of gas fuel and liquid fuel;

(iii) Maintenance spares @ 30% of operation and maintenance expenses specified in Regulation 29;

- (iv) Receivables equivalent to two months of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel; and
 - (v) Operation and maintenance expenses for one month.
- (c) Hydro generating station including pumped storage hydro electric generating station and transmission system including communication system:
 - (i) Receivables equivalent to two months of fixed cost;
 - (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and
 - (iii) Operation and maintenance expenses for one month.
- (2) The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this regulation shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the generating company and gross calorific value of the fuel as per actual for the three months preceding the first month for which tariff is to be determined and no fuel price escalation shall be provided during the tariff period.
- (3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case

may be, is declared under commercial operation, whichever is later.

(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.

29. Operation and Maintenance Expenses:

(1) Normative Operation and Maintenance expenses of thermal generating stations shall be as follows:

(a) Coal based and lignite fired (including those based on Circulating Fluidised Bed Combustion (CFBC) technology) generating stations, other than the generating stations/units referred to in clauses (b) and (d):

(in Rs.Lakh/MW)

Year	200/210/250 MW Sets	300/330/350 MW Sets	500 MW Sets	600 MW Sets and above
FY 2014-15	23.90	19.95	16.00	14.40
FY 2015-16	25.40	21.21	17.01	15.31
FY 2016-17	27.00	22.54	18.08	16.27
FY 2017-18	28.70	23.96	19.22	17.30
FY 2018-19	30.51	25.47	20.43	18.38

Provided that the norms shall be multiplied by the following factors for arriving at norms of O&M expenses for additional units in respective unit sizes for the units whose COD occurs on or after 1.4.2014 in the same station:

200/210/250 MW	Additional 5 th & 6 th units	0.90
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	Additional 7 th & more units	0.85
300/330/350 MW	Additional 4 th & 5 th units	0.90
	Additional 6 th & more units	0.85
500 MW and above	Additional 3 rd & 4 th units	0.90
	Additional 5 th & above units	0.85

- (b) Talcher Thermal Power Station (TPS), Tanda TPS, Badarpur TPS Unit 1 to 3 of NTPC and Chandrapura TPS Unit 1 to 3 and Durgapur TPS Unit 1 of DVC:

(in Rs. Lakh/MW)

Year	Talcher TPS	Chandrapura TPS (Units 1 to 3), Tanda TPS, Badarpur TPS (Unit 1 to 3), [Durgapur TPS (Unit 3)] ¹⁰
2014-15	43.16	35.88
2015-16	45.87	38.14
2016-17	48.76	40.54
2017-18	51.83	43.09
2018-19	55.09	45.80

- (c) Open Cycle Gas Turbine/Combined Cycle generating stations:

(in Rs. Lakh/MW)

Year	Gas Turbine/ Combined Cycle generating stations other than small gas turbine power generating stations	Small gas turbine power generating stations	Agartala GPS	Advance F Class Machines
2014-15	14.67	33.43	41.32	26.55
2015-16	15.59	35.70	44.14	28.36
2016-17	16.57	38.13	47.14	30.29
2017-18	17.61	40.73	50.35	32.35
2018-19	18.72	43.50	53.78	34.56

¹⁰ Substituted vide First Amendment Regulations, 2015 w.e.f. 24.11.2015

(d) Lignite-fired generating stations :

(in Rs. Lakh/MW)

Year	125 MW Sets	TPS-I of NLC
2014-15	29.10	38.12
2015-16	30.94	40.52
2016-17	32.88	43.07
2017-18	34.95	45.78
2018-19	37.15	48.66

(e) Generating Stations based on coal rejects:

Year	O&M Expenses (in Rs. Lakh/MW)
2014-15	29.10
2015-16	30.94
2016-17	32.88
2017-18	34.95
2018-19	37.15

(2) The Water Charges and capital spares for thermal generating stations shall be allowed separately:

Provided that water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details regarding the same shall be furnished along with the petition:

Provided that the generating station shall submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores and spares and renovation and modernization.

(3) Hydro Generating Station

- (a) Following operations and maintenance expense norms shall be applicable for hydro generating stations which have been operational for three or more years as on 01.04.2014:

(in Rs. lakh)

Sr. No	Name of Station	2014-15	2015-16	2016-17	2017-18	2018-19
A. NHPC						
1	Bairasuil	8696.25	9274.03	9890.19	10547.30	11248.06
2	Loktak	9673.64	10316.36	11001.78	11732.74	12512.26
3	Salal	14429.58	15388.29	16410.68	17501.01	18663.78
4	Tanakpur	7101.62	7573.45	8076.63	8613.24	9185.51
5	Chamera - I	10664.95	11373.53	12129.19	12935.05	13794.46
6	Uri	7419.40	7912.34	8438.04	8998.66	9596.54
7	Rangit	4576.46	4880.52	5204.78	5550.58	5919.36
8	Chamera - II	7256.54	7738.66	8252.82	8801.14	9385.89
9	Dhauliganga	7181.89	7659.05	8167.92	8710.59	9289.33
10	Dulhasti	13746.97	14660.32	15634.36	16673.10	17780.86
11	Teesta- V	8297.32	8848.59	9436.50	10063.46	10732.07
12	Sewa-II	6157.56	6566.67	7002.96	7468.24	7964.43
B. NHDC						
1	Indira Sagar	8607.73	9179.63	9789.52	10439.94	11133.57
2	Omkareshwar	4515.31	4815.30	5135.23	5476.42	5840.27
C. NEEPCO						
1	Kopili-I	6132.72	6540.18	6974.71	7438.11	7932.3
2	Ranganadi	7033.08	7500.36	7998.68	8530.12	9096.86
3	Doyang	3900.10	4159.22	4435.56	4730.26	5044.54
4	Khandong	1233.87	1317.89	1405.45	1498.82	1598.41
5	Kopili II	321.00	342.33	365.07	389.32	415.19
D. DVC						

Sr. No	Name of Station	2014-15	2015-16	2016-17	2017-18	2018-19
1	Panchet	1546.42	1649.17	1758.74	1875.59	2000.20
2	Tilaiya	698.99	745.43	794.95	847.77	904.10
3	Maithon	1914.46	2041.66	2177.31	2321.97	2476.24

(b) for hydro generating stations of Satluj Jal Vidyut Nigam Limited (SJVN) and Tehri Development Corporation Limited (THDC), the O&M expenses shall be approved as per the following methodology:

i. The operation and maintenance expenses shall be derived on the basis of actual operation and maintenance expenses for the years 2008-09 to 2012-13, based on the audited balance sheets, excluding abnormal operation and maintenance expenses, if any, after prudence check by the Commission.

ii. The normalised operation and maintenance expenses after prudence check, for the years 2008-09 to 2012-13, shall be escalated at the rate of 6.04% to arrive at the normalized operation and maintenance expenses at the 2012-13 price level respectively and then averaged to arrive at normalized average operation and maintenance expenses for the 2008-09 to 2012-13 at 2012-13 price level. The average normalized operation and maintenance expenses at 2012-13 price level shall be escalated at the rate of 6.04% to arrive at the operation and maintenance expenses for year 2013-14 and thereafter escalated at the rate of 6.64% p.a., to arrive at the O&M expenses for the period FY 2014-15 to FY 2018-19.

- (c) In case of the hydro generating stations, which have not been in commercial operation for a period of three years as on 1.4.2014, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works) for the first year of commercial operation. Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @6.04% per annum up to the year 2013-14 and then averaged to arrive at the O&M expenses at 2013-14 price level. It shall be thereafter escalated @ 6.64% per annum to arrive at operation and maintenance expenses in respective year of the tariff period.
- (d) In case of the hydro generating stations declared under commercial operation on or after 1.4.2014, operation and maintenance expenses shall be fixed at 4% and 2.50% of the original project cost (excluding cost of rehabilitation & resettlement works) for first year of commercial operation for stations less than 200 MW projects and for stations more than 200 MW respectively and shall be subject to annual escalation of 6.64% per annum for the subsequent years.

(4) Transmission system

- (a) The following normative operation and maintenance expenses shall be admissible for the transmission system :

Norms for sub-stations (in Rs. Lakh per bay)	2014-15	2015-16	2016-17	2017-18	2018-19
765 kV	84.42	87.22	90.12	93.11	96.20

Norms for sub-stations (in Rs. Lakh per bay)	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV	60.30	62.30	64.37	66.51	68.71
220 kV	42.21	43.61	45.06	46.55	48.10
132 kV and below	30.15	31.15	32.18	33.25	34.36
400 kV Gas Insulated Substation	51.54	53.25	55.02	56.84	58.73
Norms for AC and HVDC lines (in Rs. Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.707	0.731	0.755	0.780	0.806
Single Circuit (Bundled Conductor with four sub-conductors)	0.606	0.627	0.647	0.669	0.691
Single Circuit (Twin & Triple Conductor)	0.404	0.418	0.432	0.446	0.461
Single Circuit (Single Conductor)	0.202	0.209	0.216	0.223	0.230
Double Circuit (Bundled conductor with four or more sub-conductors)	1.062	1.097	1.133	1.171	1.210
Double Circuit (Twin & Triple Conductor)	0.707	0.731	0.755	0.780	0.806
Double Circuit (Single Conductor)	0.303	0.313	0.324	0.334	0.346
Multi Circuit (Bundled conductor with four or more sub-conductors)	1.863	1.925	1.989	2.055	2.123
Multi Circuit (Twin & Triple Conductor)	1.240	1.282	1.324	1.368	1.413
Norms for HVDC Stations					
HVDC Back-to-back stations (Rs. Lakh per 500 MW)	578	627	679	736	797
Rihand-Dadri HVDC bi-pole scheme (Rs. Lakh)	1511	1637	1774	1922	2082
Talcher- Kolar HVDC bi-pole scheme (Rs. Lakh)	1173	1271	1378	1493	1617

Norms for sub-stations (in Rs. Lakh per bay)	2014-15	2015-16	2016-17	2017-18	2018-19
Balia-Bhiwadi HVDC bi-pole scheme (Rs. Lakh)	1537	1666	1805	1955	2119

Provided that operation and maintenance expenses for new HVDC bi-pole scheme for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expense for 2000 MW, Talcher-Kolar HVDC bi-pole scheme for the respective year:

Provided further that the O&M expenses norms for HVDC bi-pole line shall be considered as Single Circuit quad AC line.

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of bays and kms of line length with the applicable norms for the operation and maintenance expenses per bay and per km respectively.

(c) The operation and maintenance expenses of communication system forming part of inter-state transmission system shall be derived on the basis of the actual O&M expenses for the period of 2008-09 to 2012-13 based on audited accounts excluding abnormal variations if any after prudence check by the Commission. The normalised O&M expenses after prudence check, for the years 2008-09 to 2012-13 shall be escalated at the rate of 3.02% for computing base year expenses for FY 2012-13 and 2013-14 and at the rate of 3.32% for escalation from 2014-15 onwards.

CHAPTER - 7

COMPUTATION OF CAPACITY CHARGES AND ENERGY CHARGES**30. Computation and Payment of Capacity Charge and Energy Charge for Thermal Generating Stations:**

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

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

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

$$CC_2 = ((AFC/6)(PAF_2 / NPAF) \text{ subject to ceiling of } (AFC/6)) - CC_1$$

$$CC_3 = ((AFC/4)(PAF_3 / NPAF) \text{ subject to ceiling of } (AFC/4)) - (CC_1 + CC_2)$$

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

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

$$CC_6 = ((AFC/2) (PAF_6 / NAPAF) \text{ subject to ceiling of } (AFC/2)) - (CC_1+CC_2 +CC_3+CC_4 + CC_5)$$

$$CC_7 = ((AFC \times 7/12) (PAF_7 / NAPAF) \text{ subject to ceiling of } (AFC \times 7/12)) - (CC_1+CC_2+CC_3+CC_4 + CC_5 + CC_6)$$

$$CC_8 = ((AFC \times 2/3) (PAF_8 / NAPAF) \text{ subject to ceiling of } (AFC \times 2/3)) - (CC_1+CC_2+CC_3+CC_4 + CC_5 + CC_6 + CC_7)$$

$$CC_9 = ((AFC \times 3/4) (PAF_9 / NAPAF) \text{ subject to ceiling of } (AFC \times 3/4)) - (CC_1+CC_2+CC_3+CC_4 + CC_5 + CC_6 + CC_7+ CC_8)$$

$$CC_{10} = ((AFC \times 5/6) (PAF_{10} / NAPAF) \text{ subject to ceiling of } (AFC \times 5/6)) - (CC_1+CC_2+CC_3+CC_4 + CC_5 + CC_6 + CC_7+ CC_8 + CC_9)$$

$$CC_{11} = ((AFC \times 11/12) (PAF_{11} / NAPAF) \text{ subject to ceiling of } (AFC \times 11/12)) - (CC_1+CC_2+CC_3+CC_4 + CC_5 + CC_6 + CC_7+ CC_8 + CC_9 + CC_{10})$$

$$CC_{12} = ((AFC) (PAF_y / NAPAF) \text{ subject to ceiling of } (AFC)) - (CC_1+CC_2 +CC_3 +CC_4 + CC_5 + CC_6 + CC_7+ CC_8 + CC_9 + CC_{10} + CC_{11})$$

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

Where,

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

NAPAF = Normative annual plant availability factor in percentage.

PAF_N = Percent Plant availability factor achieved upto the end of nth month.

PAFY = Percent Plant availability factor achieved during the Year

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

(3) The PAFM upto the end of a particular month and PAFY shall be computed in accordance with the following formula:

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

Where,

AUX=Normative auxiliary energy consumption in percentage.

DC_i = Average declared capacity (in ex-bus MW), for the ith day of the period i.e. the month or the year as the case may be, as certified by the concerned load

dispatch centre after the day is over.

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

N= Number of days during the period.

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

(4) Incentive to a generating station or unit thereof shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) as specified in regulation 36 (B).

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

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

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

(a) For coal based and lignite fired stations

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

(b) For gas and liquid fuel based stations

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

Where,

AUX = Normative auxiliary energy consumption in percentage.

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

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

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

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

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

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

LC = Normative limestone consumption in kg per kWh.

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

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

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

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

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

(7) The generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., as per the forms prescribed at **Annexure-I** to these regulations:

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

Provided further that copies of the bills and details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., details of blending ratio of the imported coal with domestic coal,

proportion of e-auction coal shall also be displayed on the website of the generating company. The details should be available on its website on monthly basis for a period of three months.

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

Pithead generating stations	:	0.2%
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Non-pithead generating stations	:	0.8%
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Provided that in case of pit head stations if coal or lignite is procured from sources other than the pit head mines which is transported to the station through rail, transit loss of 0.8% shall be applicable:

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

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

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

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

Provided further that the weighted average price of use of alternative source of fuel shall not exceed 30% of base price of fuel computed as per clause (11) of this regulation:

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

(11) The Commission through the specific tariff orders to be issued for each generating station shall approve the energy charge rate at the start of the tariff period. The energy charge so approved shall be the base energy charge rate at the start of the

tariff period. The base energy charge rate for subsequent years shall be the energy charge computed after escalating the base energy charge rate approved at the start of the tariff period by escalation rates for payment purposes as notified by the Commission from time to time for under competitive bidding guidelines.

(12) The tariff structure as provided in this regulation may be adopted by the Department of Atomic Energy, Government of India for the nuclear generating stations by specifying annual fixed cost (AFC), normative annual plant availability factor (NAPAF), installed capacity (IC), normative auxiliary power consumption (AUX) and energy charge rate (ECR) for such stations.

31. Computation and Payment of Capacity charge and Energy Charge for Hydro Generating Stations:

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

Provided that during the period between the date of commercial operation of the first unit of the generating station and the date of commercial operation of the

generating station, the annual fixed cost shall provisionally be worked out based on the latest estimate of the completion cost for the generating station, for the purpose of determining the capacity charge and energy charge payment during such period.

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

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

Where,

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

NAPAF = Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

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

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

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

Where

AUX = Normative auxiliary energy consumption in percentage

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

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

N = Number of days in the month

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

$$(\text{Energy charge rate in Rs. / kWh}) \times \{\text{Scheduled energy (ex-bus) for the month in kWh}\} \times (100 - \text{FEHS}) / 100$$

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

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

Where,

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

FEHS = Free energy for home State, in per cent, as defined in Regulation 42.

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

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

Provided that in case actual generation from a hydro generating station is less than the design energy for a continuous period of 4 years on account of hydrology factor, the generating station shall approach CEA with relevant hydrology data for revision of design energy of the station.

(b) In case the energy shortfall occurs after ten years from the date of commercial operation of a generating station, the following shall apply.

Explanation: Suppose the specified annual design energy for the station is DE MWh, and the actual energy generated during the concerned (first) and the following (second)

financial years is A1 and A2 MWh respectively, A1 being less than DE. Then, the design energy to be considered in the formula in clause (5) of these regulations for calculating the ECR for the third financial year shall be moderated as $(A1 + A2 - DE)$ MWh, subject to a maximum of DE MWh and a minimum of A1 MWh.

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

(7) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this regulation exceeds ninety paise per kWh, and the actual saleable energy in a year exceeds $\{ DE \times (100 - AUX) \times (100 - FEHS) / 10000 \}$ MWh, the Energy charge for the energy in excess of the above shall be billed at ninety paise per kWh only:

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

(8) In case of the hydro generating stations located in the State of Jammu and Kashmir, any expenditure incurred for payment of water usage charges to the State Water Resources Development Authority, Jammu under Jammu & Kashmir Water

Resources (Regulations and Management) Act, 2010 shall be payable by the beneficiaries as additional energy charge in proportion of the supply of power from the generating stations on month to month basis:

Provided further that the provisions of this clause shall be subject to the decision of the Honble High Court of Jammu & Kashmir in OWP No. 604/2011 and shall stand modified in accordance with the decision of the High Court.

32. Pumped Storage Hydro Generating Stations:

(1) The fixed cost of a pumped storage hydro generating station shall be computed on annual basis, based on norms specified under these regulations, and recovered on monthly basis as capacity charge. The capacity charge shall be payable by the beneficiaries in proportion to their respective allocation in the saleable capacity of the generating station, i.e., the capacity excluding the free power to the home State:

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

(2) The capacity charge payable to a pumped storage hydro generating station for a calendar month shall be:

(AFC x NDM / NDY) (in Rupees), if actual Generation during the month is ≥ 75 % of the Pumping Energy consumed by the station during the month and $\{(AFC \times NDM / NDY) \times (\text{Actual Generation during the month during peak hours} / 75\% \text{ of the Pumping Energy consumed by the station during the month})$ (in Rupees)}, if actual Generation during the month is < 75 % of the Pumping Energy consumed by the station during the month.

Where,

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

NDM = Number of days in the month

NDY = Number of days in the year

Provided that there would be adjustment at the end of the year based on actual generation and actual pumping energy consumed by the station during the year.

(3) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary in excess of the design energy plus 75% of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir, at a flat rate equal to the average energy charge rate of 20 paise per kWh, excluding free energy, if any, during the calendar month, on ex power plant basis.

(4) Energy charge payable to the generating company for a month shall be:

= $0.20 \times \{\text{Scheduled energy (ex-bus) for the month in kWh} - (\text{Design Energy for the month (DEm)} + 75\% \text{ of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir of the month})\} \times (100 - \text{FEHS}) / 100$.

Where,

DEm = Design energy for the month specified for the hydro generating station,

In MWh

FEHS = Free energy for home State, in per cent, as defined in Regulation 42, if

any.

Provided that in case the Scheduled energy in a month is less than the Design Energy for the month plus 75% of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir of the month, then the energy charges payable by the beneficiaries shall be zero.

(5) The generating company shall maintain the record of daily inflows of natural water into the upper elevation reservoir and the reservoir levels of upper elevation reservoir and lower elevation reservoir on hourly basis. The generator shall be required to maximize the peak hour supplies with the available water including the natural flow of water. In case it is established that generator is deliberately or otherwise without any valid reason, is not pumping water from lower elevation reservoir to the higher elevation during off-peak period or not generating power to its potential or wasting

natural flow of water, the capacity charges of the day shall not be payable by the beneficiary. For this purpose, outages of the unit(s)/station including planned outages and the forced outages up to 15% in a year shall be construed as the valid reason for not pumping water from lower elevation reservoir to the higher elevation during off-peak period or not generating power using energy of pumped water or natural flow of water:

Provided that the total capacity charges recovered during the year shall be adjusted on pro-rata basis in the following manner in the event of total machine outages in a year exceeds 15%:

$$(ACC) \text{ adj} = (ACC) R \times (100 - ATO) / 85$$

Where,

(ACC) adj – Adjusted Annual Capacity Charges

(ACC) R – Annual Capacity Charges recovered

ATO - Total Outages in percentage for the year including forced and planned outages

Provided further that the generating station shall be required to declare its machine availability daily on day ahead basis for all the time blocks of the day in line with the scheduling procedure of Grid Code.

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

33. Computation and Payment of Transmission Charge for Inter-State Transmission System:

(1) The fixed cost of the transmission system or communication system forming part of transmission system shall be computed on annual basis, in accordance with norms contained in these regulations, aggregated as appropriate, and recovered on monthly basis as transmission charge from the users, who shall share these charges in the manner specified in Regulation 43.

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

For AC system:

a) For $TAFM \leq 98\%$

$$AFC \times (NDM/NDY) \times (TAFM/98\%)$$

b) For $TAFM: 98\% < TAFM < 98.5\%$

$$AFC \times (NDM/NDY) \times (1)$$

c) For $TAFM: 98.5\% < TAFM \leq 99.75\%$

$$AFC \times (NDM/NDY) \times (TAFM/98.5\%)$$

d) For $TAFM \geq 99.75\%$

$$AFC \times (NDM/NDY) \times (99.75\%/98.5\%)$$

For HVDC bi-pole links and HVDC back-to-back Stations:

a) For $TAFM \leq 95\%$

$$\text{AFC} \times (\text{NDM}/\text{NDY}) \times (\text{TAFM}/95\%)$$

b) For TAFM: $95\% < \text{TAFM} < 96\%$

$$\text{AFC} \times (\text{NDM}/\text{NDY}) \times (1)$$

c) For TAFM: $96\% \leq \text{TAFM} \leq 99.75\%$

$$\text{AFC} \times (\text{NDM}/\text{NDY}) \times (\text{TAFM}/96\%)$$

d) For TAFM $\geq 99.75\%$

$$\text{AFC} \times (\text{NDM}/\text{NDY}) \times (99.75\%/96\%)$$

Where,

AFC = Annual Fixed Cost specified for the year in Rupees

NATAF = Normative annual Transmission availability factor, in per cent

NDM = Number of days in the month

NDY = Number of days in the year

TAFM = Transmission System availability factor for the month, in percent computed in accordance with Appendix III.

(3) The transmission charges shall be calculated separately for part of the transmission system having different NATAF, and aggregated thereafter, according to their sharing by the long term transmission customers/DICs.

34. Deviation Charges: (1) Variations between actual net injection and scheduled net injection for the generating stations, and variations between actual net drawal and scheduled net drawal for the beneficiaries shall be treated as their respective deviations

and charges for such deviations shall be governed by the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related matters) Regulations, 2014, as amended from time to time or any subsequent re-enactment thereof.

(2) Actual net deviation of every Generating Stations and Beneficiaries shall be metered on its periphery through special energy meters (SEMs) installed by the Central Transmission Utility (CTU), and computed in MWh for each 15-minute time block by the concerned Regional Load Despatch Centre.

CHAPTER - 8

NORMS OF OPERATION

35. (1) Recovery of capacity charge, energy charge, transmission charge and incentive by the generating company and the transmission licensee shall be based on the achievement of the operational norms specified in the Regulations 36 to 39.

(2) The Commission may on its own revise the norms of Station Heat Rate specified in Regulation 36 in respect of any of the generating stations for which relaxed norms have been specified.

Norms of operation for thermal generating station

36. The norms of operation as given hereunder shall apply to thermal generating stations:

(A) Normative Annual Plant Availability Factor (NAPAF)

- (a) All thermal generating stations, except those covered under clauses (b), (c), (d) & (e) - 85%

Provided that in view of shortage of coal and uncertainty of assured coal supply on sustained basis experienced by the generating stations, the NAPAF for recovery of fixed charges shall be 83% till the same is reviewed.

The above provision shall be reviewed based on actual feedback after 3 years from 1.4.2014.

- (b) Following Lignite-fired Thermal generating stations of Neyveli

Lignite Corporation Ltd:

TPS-I	72%
TPS-II Stage I & II	75%
TPS-I (Expansion)	80%

- (c) Following Thermal Generating Stations of DVC:

Bokaro TPS	75%
Chandrapura TPS	75%
Durgapur TPS	74%

- (d) Following Gas based Thermal Generating Stations of NEEPCO:

Assam GPS	72%
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- (e) Lignite fired Generating Stations using Circulatory Fluidized Bed Combustion (CFBC) Technology and Generating stations based on coal rejects

1. First Three years from COD – 75%
2. For next year after completion of three years of COD – 80%

(B) Normative Annual Plant Load Factor (NAPLF) for Incentive

- (a) All thermal generating stations, except those covered under clauses (b), (c)
- 85%

- (b) Following Lignite-fired Thermal generating stations of Neyveli Lignite Corporation Ltd :

TPS -I	75%
TPS - II Stage I &II	80%
TPS- I (Expansion)	80%

- (c) Following Thermal Generating Stations of Damodar Valley Corporation (DVC):

Bokaro TPS	80%
Chandrapur TPS	80%
Durgapur TPS	80%

(C) Gross Station Heat Rate

(a) Existing Thermal Generating Station

- (i) Existing Coal-based Thermal Generating Stations, other than those covered under clauses (ii) and (iii) below :

200/210/250 MW Sets	500 MW Sets (Sub-critical)
2450kCal/kWh	2375 kCal/kWh

Note 1

In respect of 500 MW and above units where the boiler feed pumps are electrically operated, the gross station heat rate shall be 40 kCal/kWh lower than the gross station heat rate specified above.

Note 2

For the 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 gross station heat rate of the combinations.

(ii) Following Thermal generating stations of NTPC Ltd:

Badarpur TPS	2750 kCal/kWh
Talcher TPS	2850 kCal/kWh
Tanda TPS	2750 kCal/kWh

(iii) Thermal Generating Stations of Damodar Valley Corporation (DVC):

Bokaro TPS	2700 kCal/kWh
Chandrapura TPS (Unit 1 to 3)	3100 kCal/kWh
Durgapur TPS	2820 kCal/kWh

(iv) Lignite-fired Thermal Generating Stations :

For lignite-fired thermal generating stations, except for TPS-I and TPS-II (Stage I & II) of Neyveli Lignite Corporation Ltd, the gross station heat rates specified under sub-clause (i) for coal-based thermal generating stations shall be applied with correction, using multiplying factors as given below:

- (a) For lignite having 50% moisture: 1.10
- (b) For lignite having 40% moisture: 1.07
- (c) For lignite having 30% moisture: 1.04
- (d) For other values of moisture content, multiplying factor shall be 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 (a) to (c) above.

(v) TPS-I and TPS-II (Stage I & II) of Neyveli Lignite Corporation Ltd :

TPS-I : 4000 kCal/kWh

TPS-II : 2900 kCal/kWh

TPS- I (Expansion): 2750 kCal/kWh

(vi) Open Cycle Gas Turbine/Combined Cycle generating stations :

Existing generating stations of NTPC Ltd. and NEEPCO

Name of generating station	Combined cycle (kCal/kWh)	Open Cycle (kCal/kWh)
Gandhar GPS	2040	2960
Kawas GPS	2050	3010
Anta GPS	2075	3010
Dadri GPS	2000	3010
Auraiya GPS	2100	3045
Faridabad GPS	1975	2900
Kayamkulam GPS	2000	2900
Assam GPS	2500	3440
Agartala GPS	-	3700
Sugen	1850	2685
Ratnagiri	1850	2685

(b) New Thermal Generating Station achieving COD on or after 1.4.2014

(i) Coal-based and lignite-fired Thermal Generating Stations

$$= 1.045 \times \text{Design Heat Rate (kCal/kWh)}$$

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

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

Pressure Rating (Kg/cm ²)	150	170	170	247
SHT/RHT (°C)	535/535	537/537	537/565	565/593
Type of BFP	Electrical Driven	Turbine Driven	Turbine Driven	Turbine Driven
Max Turbine Heat Rate (kCal/kWh)	1955	1950	1935	1850
Min. Boiler Efficiency				
Sub-Bituminous Indian Coal	0.86	0.86	0.86	0.86
Bituminous Imported Coal	0.89	0.89	0.89	0.89
Max Design Unit Heat Rate (kCal/kWh)				
Sub-Bituminous Indian Coal	2273	2267	2250	2151
Bituminous Imported Coal	2197	2191	2174	2078

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

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

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

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

Provided also that if one or more generating units were declared under commercial operation prior to 1.4.2014, the heat rate norms for those generating units as well as generating units declared under commercial operation on or after 1.4.2014 shall be lower of the heat rate norms arrived at by above methodology and the norms as per the Regulation 36(C)(a)(i):

Provided also that in case of lignite-fired generating stations (including stations based on CFBC technology), maximum design heat rates shall be increased using factor for moisture content given in sub-clause (C)(a)(iv) of this regulation:

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

Note: In respect of generating units where the boiler feed pumps are electrically operated, the maximum design unit heat rate shall be 40 kCal/kWh lower than the

maximum design unit heat rate specified above with turbine driven BFP.

(c) Thermal Generating Station having COD on or after 1.4.2009 till 31.03.2014

(i) Coal-based and lignite-fired Thermal Generating Stations

$$= 1.045 \times \text{Design Heat Rate (kCal/kWh)}$$

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

Provided that the heat rate norms computed as per above shall be limited to the heat rate norms approved during FY 2009-10 to FY 2013-14.

(d) Gas-based / Liquid-based thermal generating unit(s)/ block(s) having COD on or after 01.04.2009.

$$= 1.05 \times \text{Design Heat Rate of the unit/block for Natural Gas and RLNG (kCal/kWh)}$$

$$= 1.071 \times \text{Design Heat Rate of the unit/block for Liquid Fuel (kCal/kWh)}$$

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

Provided that the heat rate norms computed as per above shall be limited to the heat rate norms approved during FY 2009-10 to FY 2013-14.

(D) Secondary fuel oil consumption

- (a) Coal-based generating stations other than at (c) below: 0.50 ml/kWh
- (b) (i) Lignite-fired generating stations except stations based on CFBC technology and TPS-I : 2ml/kWh
- (ii) TPS-I : 1.5ml/kWh
- (iii) Lignite-fired generating stations based on CFBC Technology: 1.00ml/kWh
- (c) Coal-based generating stations of DVC :

Mejia TPS Unit – I to IV	1.0 ml/kWh
Bokaro TPS	1.5 ml/kWh
Chandrapur TPS	1.5 ml/kWh
Durgapur TPS	2.4 ml/kWh

- (d) Generating Stations based on Coal Rejects : 2 ml/kWh

(E) Auxiliary Energy Consumption :

- (a) Coal-based generating stations except at (b) below:

		With Natural Draft cooling tower or without cooling tower
(i) 200 MW series	-	8.5%
(ii) 300/330/350/500 MW and above		
Steam driven boiler feed pumps	-	5.25%
Electrically driven boiler feed pumps	-	7.75%

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

Provided also that Additional Auxiliary Energy Consumption as follows may be allowed for plants with Dry Cooling Systems:

Type of Dry Cooling System	(% of gross generation)
Direct cooling air cooled condensers with mechanical draft fans	1%
Indirect cooling system employing jet condensers with pressure recovery turbine and natural draft tower	0.5%

(b) Other Coal-based generating stations:

(i)	Talcher Thermal Power Station	:	10.50%
(ii)	Tanda Thermal Power Station	:	12.00%
(iii)	Badarpur Thermal Power Station	:	8.50%
(iv)	Bokaro Thermal Power Station	:	10.25%
(v)	Chandrapur Thermal Power Station	:	9.50%
(vi)	Durgapur Thermal Power Station	:	10.50%

(c) Gas Turbine /Combined Cycle generating stations:

(i)	Combined Cycle	:	2.5%
(ii)	Open Cycle	:	1.0%

(d) Lignite-fired thermal generating stations:

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

The auxiliary energy consumption norms shall be 0.5 percentage point more than

the auxiliary energy consumption norms of coal-based generating stations at (E) (a) above.

Provided that for the lignite fired stations using CFBC technology, the auxiliary energy consumption norms shall be 1.5 percentage point more than the auxiliary energy consumption norms of coal-based generating stations at (E) (a) above.

- (ii) Barsingsar Generating station of NLC using CFBC technology: 11.50%
- (iii) TPS-I, TPS-I (Expansion) and TPS-II Stage-I&II of Neyveli Lignite Corporation Ltd.:

TPS-I	12.00%
TPS-II	10.00%
TPS-I (Expansion)	8.50%

- (iv) Lime stone consumption for lignite-based generating station using CFBC technology:

Barsingsar : 0.056 kg/kWh

TPS-II (Expansion) : 0.046 kg/kWh

- (e) Generating Stations based on coal rejects : 10%

37. Norms of operation for hydro generating stations: (1) The following Normative annual plant availability factor (NAPAF) shall apply to hydro generating station:

- (a) Storage and Pondage type plants with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of up to 8%, and where

plant availability is not affected by silt : 90%

- (b) In case of storage and pondage type plants with head variation between full reservoir level and minimum draw down level is more than 8% and when plant availability is not affected by silt, the month wise peaking capability as provided by the project authorities in the DPR (approved by CEA or the State Government) shall form basis of fixation of NAPAF.
 - (c) Pondage type plants where plant availability is significantly affected by silt: 85%.
 - (d) Run-of-river type plants: NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available/relevant.
- (2) A further allowance may be made by the Commission in NAPAF determination under special circumstances, e.g. abnormal silt problem or other operating conditions, and known plant limitations.
- (3) A further allowance of 5% may be allowed for difficulties in North East Region.
- (4) Based on the above, the Normative annual plant availability factor (NAPAF) of the hydro generating stations already in operation shall be as follows :-

Station	Type of Plant	Plant Capacity No. of Units x MW	NAPAF (%)
NHPC			
Chamera - 1	Pondage	3 x 180	90
Bairasuil	Pondage	3 x 60	90
Loktak	Storage	3 x 35	85
Chamera-II	Pondage	3 x 100	90
Chamera - III	Pondage	3x77	85
Rangit	Pondage	3 x 20	90
Dhauliganga	Pondage	4 x 70	90
Teesta - V	Pondage	3 x 170	85
Dulhasti	Pondage	3 x 130	90

Station	Type of Plant	Plant Capacity No. of Units x MW	NAPAF (%)
Salal	ROR	6 x 115	60
Sewa-II	Pondage	3 x 40	85
Uri	ROR	4 x 120	70
Tanakpur	ROR	3 x 31.4	55
Chutak	ROR	4x11	50
NimooBazgo	Pondage	3x15	65
TeestaLowDam Project -III	Pondage	4x33	85
Uri-II	Pondage	4x60	55
NHDC			
Indirasagar	Storage	8 x 125	85
Omkareshwar	Pondage	8 x 65	90
THDC			
Tehri	Storage	4 x 250	77
Koteshwar	Storage	4x100	67
SJVNL			
Nathpa Jhakri	Pondage	6 x 250	90
NEEPCO			
Kopili Stg-1	Storage	4 x 50	79
Khandong	Storage	2 x 25	69
Kopili Stg. - 2	Storage	1 x 25	69
Doyang	Storage	3 x 25	73
Ranganadi	Pondage	3 x 135	85
DVC			
Panchet	Storage	2 x 40	80
Tilaiya	Storage	2 x 2	80
Maithon	Storage	3 x 20	80

(5) In case of Pumped storage hydro generating stations, the quantum of electricity required for pumping water from down-stream reservoir to up-stream reservoir shall be arranged by the beneficiaries duly taking into account the transmission and distribution losses etc. up to the bus bar of the generating station. In return, beneficiaries shall be entitled to equivalent energy of 75% of the energy utilized in

pumping the water from the lower elevation reservoir to the higher elevation reservoir from the generating station during peak hours and the generating station shall be under obligation to supply such quantum of electricity during peak hours:

Provided that in the event of the beneficiaries failing to supply the desired level of energy during off-peak hours, there will be pro-rata reduction in their energy entitlement from the station during peak hours:

Provided further that the beneficiaries may assign or surrender their share of capacity in the generating station, in part or in full, or the capacity may be reallocated by the Central Government, and in that event, the owner or assignee of the capacity share shall be responsible for arranging the equivalent energy to the generating station in off-peak hours, and be entitled to corresponding energy during peak hours in the same way as the original beneficiary was entitled.

(6) Auxiliary Energy Consumption (AUX):

- (a) Surface hydro generating stations
 - (i) with rotating exciters mounted on the generator shaft : 0.7%
 - (ii) with static excitation system : 1.00%
- (b) Underground hydro generating stations
 - (i) with rotating exciters mounted on the generator shaft : 0.9%
 - (ii) with static excitation system: 1.2%

Norms of operation for transmission system

38. Normative Annual Transmission System Availability Factor (NATAF):

shall be as under:

For recovery of Annual Fixed Charges:

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

For incentive consideration:

- (1) AC system: 98.50%
- (2) HVDC bi-pole links and HVDC back-to-back Stations : 96%

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

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

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

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

39. Auxiliary Energy Consumption in the sub-station:

- (a) AC System

The charges for auxiliary energy consumption in the AC sub-station for the purpose of air-conditioning, lighting and consumption in other equipment shall be borne by the transmission licensee and included in the normative operation and maintenance expenses.

(b) HVDC sub-station

For auxiliary energy consumption in HVDC sub-stations, the Central Government may allocate an appropriate share from one or more ISGS. The charges for such power shall be borne by the transmission licensee from the normative operation and maintenance expenses.

CHAPTER - 9

SCHEDULING, ACCOUNTING AND BILLING

40. Scheduling: The methodology for scheduling and dispatch for the generating station shall be as specified in the Grid Code.

41. Metering and Accounting: The provisions of the Grid Code shall be applicable.

42. Billing and Payment of charges: (1) Bills shall be raised for capacity charge, energy charge and the transmission charge on monthly basis by the generating company and the transmission licensee in accordance with these regulations, and payments shall be made by the beneficiaries or the long term transmission customers /DICs directly to the generating company or the transmission licensee, as the case may be.

(2) Payment of the capacity charge for a thermal generating station shall be shared by the beneficiaries of the generating station as per their percentage shares for the month (inclusive of any allocation out of the unallocated capacity) in the installed capacity of the generating station. Payment of capacity charge and energy charge for a hydro generating station shall be shared by the beneficiaries of the generating station in proportion to their shares (inclusive of any allocation out of the unallocated capacity) in the saleable capacity (to be determined after deducting the capacity

corresponding to free energy to home State as per Note 3 herein.

Note 1

Shares / allocations of each beneficiary in the total capacity of Central sector generating stations shall be as determined by the Central Government, inclusive of any allocation made out of the unallocated capacity. The shares shall be applied in percentages of installed capacity and shall normally remain constant during a month. Based on the decision of the Central Government the changes in allocation shall be communicated by the Member-Secretary, Regional Power Committee in advance, at least three days prior to beginning of a calendar month, except in case of an emergency calling for an urgent change in allocations out of unallocated capacity. The total capacity share of a beneficiary would be sum of its capacity share plus allocation out of the unallocated portion. In the absence of any specific allocation of unallocated power by the Central Government, the unallocated power shall be added to the allocated shares in the same proportion as the allocated shares.

Note 2

The beneficiaries may propose surrendering part of their allocated firm share to other States within / outside the region. In such cases, depending upon the technical feasibility of power transfer and specific agreements reached by the generating company with other States within/ outside the region for such transfers, the shares of the beneficiaries may be prospectively re-allocated by the Central Government for a

specific period (in complete months) from the beginning of a calendar month. When such re-allocations are made, the beneficiaries who surrender the share shall not be liable to pay capacity charges for the surrendered share. The capacity charges for the capacity surrendered and reallocated as above shall be paid by the State(s) to whom the surrendered capacity is allocated. Except for the period of reallocation of capacity as above, the beneficiaries of the generating station shall continue to pay the full capacity charges as per allocated capacity shares. Any such reallocation and its reversion shall be communicated to all concerned by the Member Secretary, Regional Power Committee in advance, at least three days prior to such reallocation or reversion taking effect.

Note 3

FEHS = Free energy for home State, in percent and shall be taken as 13% or actual whichever is less.

Provided that in cases where the site of a hydro project is awarded to a developer, by the State Government by following a two stage transparent process of bidding, the 'free energy' shall be taken as 13%, in addition to energy corresponding to 100 units of electricity to be provided free of cost every month to every project affected family for a period of 10 years from the date of commercial operation of the generating station:

Provided further that the generating company shall submit detailed quantification of energy corresponding to 100 units of electricity to be provided free of cost every month to every project affected family for a period of 10 years from the

date of commercial operation.

43. Sharing of Transmission Charges (1) The sharing of transmission charges shall be governed by the Sharing Regulations.

(2) The charges determined in this regulation in relation to communication system forming part of transmission system shall be shared by the beneficiaries or long term transmission customers in accordance with the Sharing Regulations:

Provided that charges determined in this regulation in relation to communication system other than central transmission system shall be shared by the beneficiaries in proportion to the capital cost belonging to respective beneficiaries.

44. Rebate (1) For payment of bills of the generating company and the transmission licensee through letter of credit on presentation or through NEFT/RTGS within a period of 2 days of presentation of bills by the generating company or the transmission licensee, a rebate of 2% shall be allowed.

(2) Where payments are made on any day after 2 days and within a period of 30 days of presentation of bills by the generating company or the transmission licensee, a rebate of 1% shall be allowed.

45. Late payment surcharge In case the payment of any bill for charges payable

under these regulations is delayed by a beneficiary of long term transmission customer/DICs as the case may be, beyond a period of 60 days from the date of billing, a late payment surcharge at the rate of 1.50% per month shall be levied by the generating company or the transmission licensee, as the case may be.

CHAPTER – 10

MISCELLANEOUS PROVISIONS

46. Sharing of CDM Benefits: The proceeds of carbon credit from approved CDM project shall be shared in the following manner, namely-

(a) 100% of the gross proceeds on account of CDM to be retained by the project developer in the first year after the date of commercial operation of the generating station or the transmission system, as the case may be;

(b) In the second year, the share of the beneficiaries shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, where after the proceeds shall be shared in equal proportion, by the generating company or the transmission licensee, as the case may be, and the beneficiaries.

47. Norms to be ceiling norms: Norms specified in these regulations are the ceiling norms and shall not preclude the generating company or the transmission licensee, as the case may be, and the beneficiaries and the long-term transmission customers /DICs from agreeing to the improved norms and in case the improved norms are agreed to, such improved norms shall be applicable for determination of tariff.

48. Deviation from norms:(1) Tariff for sale of electricity by the generating company or for transmission charges of the transmission licensee, as the case may be, may also be determined in deviation of the norms specified in these regulations subject to the

conditions that :

- (a) The levelised tariff over the useful life of the project on the basis of the norms in deviation does not exceed the levelised tariff calculated on the basis of the norms specified in these regulations and upon submission of complete workings with assumptions to be provided by the generator or the transmission licensee at the time of filing of the application; and
- (b) Any deviation shall come into effect only after approval by the Commission, for which an application shall be made by the generating company or the transmission licensee, as the case may be.

Explanation - For the purpose of calculating the levelised tariff referred to in sub-clause(a) of clause (1), the discounting factor shall be as notified by the Commission from time to time.

- (2) The tariff of the existing generating stations of Neyveli Lignite Corporation Ltd, namely, TPS-I and TPS-II (Stage I & II) and TPS-I (Expansion) and Badarpur TPS of NTPC Ltd., whose tariff for the tariff periods 2004-09 and 2009-14 has been determined by following the Net Fixed Assets approach, shall continue to be determined by adopting Net Fixed Assets approach.

49. Deferred Tax liability with respect to previous tariff period:[Deferred tax liabilities for the period upto 31st March, 2009 whenever they materialise shall be

recoverable directly by the generating companies or transmission licensees from the beneficiaries or long term transmission customers/DICs, as the case may be. Deferred tax liabilities for the periods from 1.4.2009 to 31.3.2014 and 1.4.2014 to 31.3.2019 shall not be recoverable from the beneficiaries or the long term transmission customers/DICs, as the case may be.]¹¹

[49A Transmission Majoration Factor:

Transmission Majoration Factor admissible for the transmission projects executed through JV route in terms of Regulation 4.10A of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2001 shall be available for a period of 25 years from the date of issue of the transmission licence.]¹²

50. Foreign Exchange Rate Variation:

(1) The generating company or the transmission licensee, as the case may be, may hedge foreign exchange exposure in respect of the interest on foreign currency loan and repayment of foreign loan acquired for the generating station or the transmission system, in part or in full in the discretion of the generating company or the transmission licensee.

(2) As and when the petitioner enters into any hedging based on its approved hedging policy, the petitioner should communicate to the beneficiaries concerned about its hedging decision within thirty days of entering into such hedging transaction(s).

¹¹ Substituted vide First Amendment Regulations, 2015 w.e.f. 24.11.2015

¹² Inserted vide Second Amendment Regulations, 2019 w.e.f. 15.2.2019

(3) Every generating company and transmission licensee shall recover the cost of hedging of foreign exchange rate variation corresponding to the normative foreign debt, in the relevant year on year-to-year basis as expense in the period in which it arises and extra rupee liability corresponding to such foreign exchange rate variation shall not be allowed against the hedged foreign debt.

(4) To the extent the generating company or the transmission licensee is not able to hedge the foreign exchange exposure, the extra rupee liability towards interest payment and loan repayment corresponding to the normative foreign currency loan in the relevant year shall be permissible provided it is not attributable to the generating company or the transmission licensee or its suppliers or contractors.

(5) Every generating company and the transmission licensee shall recover the cost of hedging and foreign exchange rate variation on year-to-year basis as income or expense in the period in which it arises.

51. Recovery of cost of hedging or Foreign Exchange Rate Variation:

(1) Recovery of cost of hedging or foreign exchange rate variation shall be made directly by the generating company or the transmission licensee, as the case may be, from the beneficiaries or the long term transmission customers /DICs, as the case may be, without making any application before the Commission:

Provided that in case of any objections by the beneficiaries or the long term transmission customers /DICs, as the case may be, to the amounts claimed on account of cost of hedging or foreign exchange rate variation, the generating company or the transmission licensee, as the case may be, may make an appropriate application before the Commission for its decision.

52. Application fee and the publication expenses: The following fees, charges and expenses shall be reimbursed directly by the beneficiary in the manner specified herein:

(1) The application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, may in the discretion of the Commission, be allowed to be recovered by the generating company or the transmission licensee, as the case may be, directly from the beneficiaries or the long term transmission customers /DICs, as the case may be:

(2) The following fees and charges shall be reimbursed directly by the beneficiaries in proportion of their allocation in the generating stations or by the long term transmission customers /DICs in proportion to their share in the inter-State transmission systems determined in accordance with the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time;

(a) Fees and charges paid by the generating companies and inter-State transmission licensees (including deemed inter-State transmission licensee) under the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2009, as amended from time to time or any subsequent amendment thereof;

(b) Licence fees paid by the inter-State transmission licensees (including the deemed inter-State transmission licensee) in terms of Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012 or any subsequent amendment or re-enactment thereof;

(c) Licence fees paid by NHPC Ltd to the State Water Resources Development Authority, Jammu in accordance with the provisions of Jammu & Kashmir Water Resources (Regulations and Management) Act, 2010;

(3) The Commission may, for the reasons to be recorded in writing and after hearing the affected parties, allow reimbursement of any fee or expenses, as may be considered necessary.

53. Special Provisions relating to Damodar Valley Corporation: (1) Subject to clause (2), this regulation shall apply to determination of tariff of the projects owned by

Damodar Valley Corporation (DVC).

(2) The following special provisions shall apply for determination of tariff of the projects owned by DVC:

(i) Capital Cost : The expenditure allocated to the object 'power' in terms of Sections 32 and 33 of the Damodar Valley Corporation Act, 1948, to the extent of its apportionment to generation and inter-state transmission, shall form the basis of capital cost for the purpose of determination of tariff:

Provided that the capital expenditure incurred on head office, regional offices, administrative and technical centers of DVC, after due prudence check, shall also form part of the capital cost.

(ii) Debt Equity Ratio : The debt equity ratio of all projects of DVC commissioned prior to 01.01.1992 shall be 50:50 and that of the projects commissioned thereafter shall be 70:30.

(iii) Depreciation : The depreciation rate stipulated by the Comptroller and Auditor General of India in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be applied for computation of depreciation of projects of DVC.

(iv) Funds under section 40 of the Damodar Valley Corporation Act, 1948 : The Fund(s) established in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be considered as items of expenditure to be recovered through tariff.

(3) The provisions in clause (2) of this regulation shall be subject to the decision of the Honble Supreme Court in Civil Appeal No. 4289 of 2008 and other related appeals pending in the Honble Court and shall stand modified to the extent they are inconsistent with the decision.

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

55. Power to Remove Difficulty:

If any difficulty arises in giving effect to the provisions of these regulations, the Commission may, by order, make such provision not inconsistent with the provisions of the Act or provisions of other regulations specified by the Commission, as may appear to be necessary for removing the difficulty in giving effect to the objectives of these regulations.

-Sd-
M.K.Anand
Chief (Finance)
[Advt.III/4/Exty./150/13]

Appendix-I

Timeline for completion of Projects

(Refer to Regulation 24)

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

A. Thermal Power Projects

Coal/Lignite Power Plant

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

- (a) 33 months for green field projects. Subsequent units at an interval of 4 months each.
- (b) 31 months for extension projects. Subsequent units at an interval of 4 months each.

Unit size 250 MW CFBC technology

- (a) 36 months for green field projects. Subsequent units at an interval of 4 months each.
- (b) 34 months for extension projects. Subsequent units at an interval of 4 months each.

Unit size 500/600 MW

- (a) 44 months for green field projects. Subsequent units at an interval of 6 months each.
- (b) 42 months for extension projects. Subsequent units at an interval of 6 months each.

Unit size 660/800 MW

- (a) 52 months for green field projects. Subsequent units at an interval of 6 months each.
- (b) 50 months for extension projects. Subsequent units at an interval of 6 months each.

Combined Cycle Power Plant

Gas Turbine size upto 100 MW (ISO rating)

- (a) 26 months for first block of green field projects. Subsequent blocks at an interval of 2 months each.
- (b) 24 months for first block of extension projects. Subsequent units at an interval of 2 months each.

Gas Turbine size above 100 MW (ISO rating)

- (a) 30 months for first block of green field projects. Subsequent blocks at an interval of 4 months each.
- (b) 28 months for first block of extension projects. Subsequent units at an interval of 4 months each.

B. Hydro Electric Projects

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

C. Transmission Schemes

Qualifying time schedules in months

Sr. No.	Transmission Work	Plain Area (months)	Hilly Terrain (months)	Snowbound area/@very difficult Terrain (months)
a	765 kV S/C Transmission line	36	42	46
b	765 kV D/C Transmission line	40	46	50
c	+/-500 kV HVDC Transmission line	30	36	40
d	400 kV M/C Quad or more sub-conductor Transmission line	40	46	50
e	400 kV M/C Twin/Triple Transmission line	38	44	48
f	400 kV D/C Quad Transmission line	38	44	48
g	400 kV D/C Triple Transmission line	36	42	46
h	400 kV D/C Twin Transmission line	34	40	44
i	400 kV S/C Six or more sub-conductor Transmission line	36	42	46
j	400 kV S/C Twin Transmission line	30	36	40
k	220 kV D/C Twin Transmission line	34	40	44
l	220 kV D/C Transmission line	30	36	40

Sr. No.	Transmission Work	Plain Area (months)	Hilly Terrain (months)	Snowbound area/@very difficult Terrain (months)
m	220 kV S/C Transmission line	26	32	36
n	New 220 kV AC Sub-Station	24	27	30
o	New 400 kV AC Sub-Station	30	33	36
p	New 765 kV AC Sub-Station	36	40	\$
q	*HVDC bi-pole terminal	42	44	-
r	HVDC back-to-back	32	34	-
@ e.g. Leh, Laddakh				
\$ No 765 kV sub-station has been planned in difficult terrain				
* Includes ± 800 kV HVDC bi-pole terminal				

Notes:

- (i) In case a scheme having combination of the above mentioned types of projects, the qualifying time schedule of the activity having maximum time period shall be considered for the scheme as a whole.
- (ii) In case a transmission line falls in plain as well as in hilly terrain/snow bound area/very difficult terrain, the composite qualifying time schedule shall be calculated giving proportional weightage to the line length falling in each area.

Appendix-II**Depreciation Schedule**

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

f.	Switchgear including cable connections	5.28%
g.	Lightning arrestor	
(i)	Station type	5.28%
(ii)	Pole type	5.28%
(iii)	Synchronous condenser	5.28%
h.	Batteries	5.28%
(i)	Underground cable including joint boxes and disconnected boxes	5.28%
(ii)	Cable duct system	5.28%
i.	Overhead lines including cable support	
(i)	Lines on fabricated steel operating at terminal voltages higher than 66 KV	5.28%
(ii)	Lines on steel supports operating at terminal voltages higher than 13.2 KV but not exceeding 66 KV	5.28%
(iii)	Lines on steel on reinforced concrete support	5.28%
(iv)	Lines on treated wood support	5.28%
j.	Meters	5.28%
k.	Self propelled vehicles	9.50%
l.	Air Conditioning Plants	
(i)	Static	5.28%
(ii)	Portable	9.50%
m.(i)	Office furniture and furnishing	6.33%
(ii)	Office equipment	6.33%
(iii)	Internal wiring including fittings and apparatus	6.33%
(iv)	Street Light fittings	5.28%
n.	Apparatus let on hire	
(i)	Other than motors	9.50%
(ii)	Motors	6.33%
o.	Communication equipment	
(i)	Radio and high frequency carrier system	6.33%
(ii)	Telephone lines and telephones	6.33%
[(iii)	Fibre Optic] ¹³	6.33%
p.	I. T Equipment including software	15.00%
q.	Any other assets not covered above	5.28%

¹³ Added vide First Amendment Regulations, 2015 w.e.f. 24.11.2015

Appendix-III

Procedure for Calculation of Transmission System

Availability Factor for a Month

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

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

% TAFM for HVDC system

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

Where

o	=	Total number of AC lines.
AVo	=	Availability of o number of AC lines.
p	=	Total number of bus reactors/switchable line reactors
AVp	=	Availability of p number of bus reactors/switchable line reactors
q	=	Total number of ICTs.
AVq	=	Availability of q number of ICTs.
r	=	Total number of SVCs.
AVr	=	Availability of r number of SVCs.
s	=	Total number of HVDC poles
AVs	=	Availability of s number of HVDC poles
t	=	Total number of HVDC back-to-back station blocks
AVt	=	Availability of t number of HVDC back-to-back station blocks

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

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

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

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

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

- (b) For each HVDC pole- The rated MW capacity x ckt-km
 - (c) For each ICT bank – The rated MVA capacity
 - (d) For SVC- The rated MVAR capacity (inductive and capacitive)
 - (e) For Bus Reactor/switchable line reactors – The rated MVAR capacity.
 - (f) For HVDC back-to-back station connecting two Regional grids- Rated MW capacity of each block.
4. The availability for each category of transmission elements shall be calculated based on the weightage factor, total hours under consideration and non-available hours for each element of that category. The formulae for calculation of Availability of each category of the transmission elements are as per **Appendix-V**.
5. The transmission elements under outage due to following reasons shall be deemed to be available:
- i. Shut down availed for maintenance or construction of elements of another transmission scheme. If the other transmission scheme belongs to the transmission licensee, the Member-Secretary, RPC may restrict the deemed availability period to that considered reasonable by him for the work involved.
 - ii. Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the directions of RLDC.
6. Outage time of transmission elements for the following contingencies shall be excluded from the total time of the element under period of consideration.
- i. Outage of elements due to acts of God and force majeure events beyond the control of the transmission licensee. However, onus of satisfying the Member Secretary, RPC that element outage was due to aforesaid events and not due to design failure shall rest with the transmission licensee. A reasonable restoration time for the element

shall be considered in accordance with Central Electricity Regulatory Commission (Standard of Performance of inter-State transmission licensees) Regulations, 2012 as amended from time to time and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Circuits restored through ERS (Emergency Restoration System) shall be considered as available.

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

Appendix-IV

SURGE IMPEDANCE LOADING (SIL) OF AC LINES

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

Appendix-V

FORMULAE FOR CALCULATION OF AVAILABILITY OF EACH CATEGORY OF TRANSMISSION ELEMENTS

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

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

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

$$AV_r \text{ (Availability of } r \text{ no. of SVCs)} = \frac{\left[\sum_{l=1}^r \frac{0.5 W_{il} (T_{il} - T_{NAil})}{T_{il}} + \sum_{l=1}^r \frac{0.5 W_{cl} (T_{cl} - A_{cl})}{T_{cl}} \right]}{\left[\sum_{l=1}^r 0.5 W_{il} + \sum_{l=1}^r 0.5 W_{cl} \right]}$$

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

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

Where W_i = Weightage factor for i^{th} transmission line
 W_j = Weightage factor for j^{th} HVDC pole
 W_k = Weightage factor for k^{th} ICT
 $W_{il} \& W_{cl}$ = Weightage factors for inductive & capacitive operation of l^{th} SVC

W_m = Weightage factor for m^{th} bus reactor
 W_n = Weightage factor for n^{th} HVDC back to back block.

$T_i, T_j, T_k, T_{il}, T_{cl}, T_m \& T_n$ - The total hours of i^{th} AC line, j^{th} HVDC pole, k^{th} ICT, l^{th} SVC (Inductive Operation), l^{th} SVC (Capacitive Operation), m^{th} Switched Bus Reactor & n^{th} HVDC back-to-back block during the period under consideration (excluding time period for outages not attributable to transmission licensee for reasons given in Para 6 of the procedure)

$T_{NAi}, T_{NAj}, T_{NAk}, T_{NAil}, T_{NAcl}, T_{NA m}, T_{NA n}$ - The non-availability hours (excluding the time period for outages not attributable to transmission licensee taken as deemed availability as per Para 5 of the procedure) for i^{th} AC line, j^{th} HVDC pole, k^{th} ICT, l^{th} SVC (Inductive Operation), l^{th} SVC (Capacitive Operation), m^{th} Switched Bus Reactor and n^{th} HVDC back-to-back block.

APPENDIX – VI
(For Coal based Generating Stations)

It is to certify that the **(Name of the Station)** has fulfilled all the key provisions as prescribed below in accordance with Regulation 4 of CERC (Terms and Conditions of Tariff), Regulations, 2014.

1. All documents as prescribed in Regulation 3(8) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations - 2010 have been retained at site and are available at site.
2. All requirements as per Regulation 5 of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations – 2010 have been complied.
3. The unit operating capability shall be in conformity to Regulation 7(1), 7(2), 7(3) and 7(4) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations – 2010.
4. All requirements as per Regulation 8 of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations 2010 have been complied for the Steam Generator.
5. All requirements as per Regulation 9(2), 9(4), 9(9), 9(15), 9(16), 9(18) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations 2010 have been complied for the Steam Turbine Generator.

Name:

(CMD/CEO/MD)

(For Gas based Generating Stations)

It is to certify that the **(Name of the Station)** has fulfilled all the key provisions as prescribed below in accordance with Regulation 4 of CERC (Terms and Conditions of Tariff), Regulations, 2014.

1. All documents as prescribed in Regulation 3(8) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations - 2010 have been retained at site and are available at site.
2. All requirements as per Regulation 5 of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations – 2010 have been complied.
3. The unit operating capability shall be in conformity to Regulation 14 (2), 14(3), 14(4), 14(5) and 14(7) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations – 2010.
4. All requirements as per Regulation 17 and Regulations 9(2), 9(4), 9(9), 9(15), 9(16), 9(18) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations 2010 have been complied for the Steam Turbine.

Name:

(CMD/CEO/MD)

(For Hydro based Generating Stations)

It is to certify that the (Name of the Station) has fulfilled all the key provisions as prescribed below in accordance with Regulation 4 of CERC (Terms and Conditions of Tariff), Regulations, 2014.

1. All documents as prescribed in Regulation 3(8) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations - 2010 have been retained at site and are available at site.
2. All requirements as per Regulation 30(1), 30(2) and 30(5) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations - 2010 have been complied.
3. The unit operating capability shall be in conformity to Regulation 32 (1), 32(3), 32(4), 32(6) and 32(8) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations - 2010.
4. All requirements as per Regulation 33(6), 33(7), 33(8) of the CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations 2010 have been complied for the hydraulic Turbine.

Name:

(CMD/CEO/MD)

TARIFF FILING FORMS (THERMAL)

FOR DETERMINATION OF TARIFF

PART-I

Annexure-I

PART-I**Checklist of Forms and other information/ documents for tariff filing for
Thermal Stations**

Form No.	Title of Tariff Filing Forms (Thermal)	Tick
FORM- 1	Summary Sheet	
Form-1(I)	Statement showing claimed capital cost	
Form-1(II)	Statement showing Return on Equity	
FORM-2	Plant Characteristics	
FORM-3	Normative parameters considered for tariff computations	
FORM- 4	Details of Foreign loans	
FORM- 4A	Details of Foreign Equity	
FORM-5	Abstract of Admitted Capital Cost for the existing Projects	
FORM-5A	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects	
FORM-5B	Break-up of Capital Cost for Coal/Lignite based projects	
FORM-5C	Break-up of Capital Cost for Gas/Liquid fuel based Projects	
FORM-5D	Break-up of Construction/Supply/Service packages	
FORM-5E	Details of variables , parameters , optional package etc. for New Project	
FORM-5Ei	In case there is cost over run	
FORM-5Eii	In case there is time over run	
FORM-5F	In case there is claim of additional RoE	
FORM- 6	Financial Package upto COD	
FORM- 7	Details of Project Specific Loans	
FORM- 8	Details of Allocation of corporate loans to various projects	
FORM-9A	Statement of Additional Capitalisation after COD	
FORM – 9B	Statement of Additional Capitalisation during fag end of the useful life of Project	
FORM – 9Bi	Details of Assets De-capitalised during the period	
FORM – 9C	Statement showing reconciliation of ACE claimed with the capital additions as per books	
FORM – 9D	Statement showing items/assets/works claimed under Exclusions	

Form No.	Title of Tariff Filing Forms (Thermal)	Tick
FORM- 9E	Statement of Capital cost	
FORM- 9F	Statement of Capital Woks in Progress	
FORM- 10	Financing of Additional Capitalisation	
FORM- 11	Calculation of Depreciation	
FORM- 12	Statement of Depreciation	
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	
FORM- 13A	Calculation of Interest on Normative Loan	
FORM- 13 B	Calculation of Interest on Working Capital	
FORM- 13 C	Other Income as on COD	
FORM- 13 D	Incidental Expenditure during Construction up to Scheduled COD and up to Actual COD	
FORM- 13 E	Expenditure under different packages up to Scheduled COD and up to Actual COD	
FORM- 14	Draw Down Schedule for Calculation of IDC & Financing Charges	
FORM- 14A	Actual cash expenditure	
FORM-15	Details/Information to be Submitted in respect of Fuel for Computation of Energy Charges ¹	
FORM- 16	Details/Information to be Submitted in respect of Limestone for Computation of Energy Charge Rate	
FORM-17	Details/Information to be Submitted in respect of Capital Spares	
FORM-18	Liability Flow Statement	
FORM-19	Station wise Cost Audit Report	
Other Information/ Documents		
Sl. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement 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	A. Station wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on COD of the Station for the new station & for the relevant years. B. Station wise and Corporate audited Balance Sheet and Profit & Loss	

Form No.	Title of Tariff Filing Forms (Thermal)	Tick
	Accounts with all the Schedules & annexures for the existing station for 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 cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	
8	Generating Company shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the Generating Unit wise /stage wise/Station wise/ and subsequently consolidated at Company level as submitted to the Govt. of India for first two years i.e. 2014-15 and 2015-16 at the time of mid-term true-up in 2016-17 and for balance period of tariff period 2014-19 at the time of final true-up in 2019-20. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
9	Any other relevant information, (Please specify)	
10.	Reconciliation with Balance sheet of any actual additional capitalization and amongst stages of a generating station	

Note1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted shall also be furnished in the form of CD/Floppy disc.

Summary Sheet

Name of the Petitioner _____

Name of the Generating Station : _____

Place (Region/District/State): _____

Sr.No.	Particulars	Unit	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2		3	4	5	6	7	8
1.1	Depreciation	Rs Lakh						
1.2	Interest on Loan	Rs Lakh						
1.3	Return on Equity ¹	Rs Lakh						
1.4	Interest on Working Capital	Rs Lakh						
1.5	O & M Expenses	Rs Lakh						
1.7	Compensation Allowance (If applicable)	Rs Lakh						
1.8	Special allowance (If applicable)	Rs Lakh						
	Total	Rs Lakh						
2.1	Landed Fuel Cost (Domestic : coal/gas /RLNG/liquid)	Rs/Tone						
	(%) of Fuel Quantity	(%)						
2.2	Landed Fuel Cost (Imported Coal)	Rs/Tone						
	(%) of Fuel Quantity	(%)						
2.3	Secondary fuel oil cost	Rs/Unit						
	Energy Charge Rate ex-bus(Paaise/kWh) ^{2A, 2B, 2C, 2D}	Rs/Unit						

Note

1: Details of calculations, considering equity as per regulation, to be furnished.

2A: If multifuel is used simultaneously, give 2 in respect of every fuel individually.

2B: The rate of energy charge shall be computed for open cycle operation and combined cycle operation separately in case of gas/liquid fuel fired plants.

2C: The total energy charge shall be worked out based on ex-bus energy scheduled to be sent out.

2D: The Energy Charge rate for the month shall be based on fuel cost(s) and GCV(s) for the month as per Regulation 30(6).

Form-1(I) –Statement showing claimed capital cost:

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Opening Capital Cost					
	Add: Addition during the year / period					
	Less: Decapitalisation during the year / period					
	Less: Reversal during the year / period					
	Add: Discharges during the year / period					
	Closing Capital Cost					
	Average Capital Cost					

Form-1(II) –Statement showing Return on Equity:

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Opening Equity					
	Add: Increase due to addition during the year / period					
	Less: Decrease due to de-capitalisation during the year / period					
	Less: Decrease due to reversal during the year / period					
	Add: Increase due to discharges during the year / period					
	Closing Equity					
	Average Equity					
	Rate of ROE					
	Return on Equity					

(Petitioner)

PART-I
FORM-2

Plant Characteristics

Name of the Petitioner						
Name of the Generating Station						
Unit(s)/Block(s)/Parameters	Unit-I	Unit-II	Unit-III		
Installed Capacity (MW)						
Schedule COD as per Investment Approval						
Actual COD /Date of Taken Over (as applicable)						
Pit Head or Non Pit Head						
Name of the Boiler Manufacture						
Name of Turbine Generator Manufacture						
Main Steams Pressure at Turbine inlet (kg/Cm²) abs¹.						
Main Steam Temperature at Turbine inlet (°C) ¹						
Reheat Steam Pressure at Turbine inlet (kg/Cm²) ¹						
Reheat Steam Temperature at Turbine inlet (°C) ¹						
Main Steam flow at Turbine inlet under MCR condition (tons /hr)²						
Main Steam flow at Turbine inlet under VWO condition (tons /hr)²						
Unit Gross electrical output under MCR /Rated condition (MW)²						
Unit Gross electrical output under VWO condition (MW)²						
Guaranteed Design Gross Turbine Cycle Heat Rate (kCal/kWh)³						
Conditions on which design turbine cycle heat rate guaranteed						
% MCR						
% Makeup Water Consumption						
Design Capacity of Make up Water System						
Design Capacity of Inlet Cooling System						
Design Cooling Water Temperature (°C)						
Back Pressure						
Steam flow at super heater outlet under BMCR condition (tons/hr)						
Steam Pressure at super heater outlet under BMCR condition) (kg/Cm ²)						
Steam Temperature at super heater outlet under BMCR condition (°C)						
Steam Temperature at Reheater outlet at BMCR condition (°C)						
Design / Guaranteed Boiler Efficiency (%) ⁴						
Design Fuel with and without Blending of						

domestic/imported coal						
Type of Cooling Tower						
Type of cooling system⁵						
Type of Boiler Feed Pump⁶						
Fuel Details⁷						
-Primary Fuel						
-Secondary Fuel						
-Alternate Fuels						
Special Features/Site Specific Features⁸						
Special Technological Features⁹						
Environmental Regulation related features¹⁰						
Any other special features						
1: At Turbine MCR condition.						
2: with 0% (Nil) make up and design Cooling water temperature						
3: at TMCR output based on gross generation, 0% (Nil) makeup and design Cooling water temperature.						
4: With Performance coal based on Higher Heating Value (HHV) of fuel and at BMCR) out put						
5: Closed circuit cooling, once through cooling, sea cooling, natural draft cooling, induced draft cooling etc.						
6: Motor driven, Steam turbine driven etc.						
7: Coal or natural gas or Naptha or lignite etc.						
8: Any site specific feature such as Merry-Go-Round, Vicinity to sea, Intake /makeup water systems etc. scrubbers etc. Specify all such features						
9: Any Special Technological feature like Advanced class FA technology in Gas Turbines, etc.						
10: Environmental Regulation related features like FGD, ESP etc.,						
Note 1: In case of deviation from specified conditions in Regulation, correction curve of manufacturer may also be submitted.						
Note 2: Heat Balance Diagram has to be submitted along with above information in case of new stations.						
Note 3: The Terms – MCR, BMCR, HHV, Performance coal, are as defined in CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations – 2010 notified by the Central Electricity Authority						
Note 4: The copy of Certificate shall be submitted in terms of Regulation 4 as per Appendix-VI						

(Petitioner)

Normative parameters considered for tariff computations

Name of the Petitioner

Name of the Generating Station

Year Ending March

Particulars	Unit	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Rate of Return on Equity	%						
Effective Tax Rate ⁴	%						
Target Availability	%						
Auxiliary Energy Consumption	%						
Gross Station Heat Rate	kCal/kWh						
Specific Fuel Oil Consumption	ml/kWh						
Cost of Coal/Lignite for WC ¹	in Months						
Cost of Main Secondary Fuel Oil for WC ¹	in Months						
Fuel Cost for WC ²	in Months						
Liquid Fuel Stock for WC ²	in Months						
O & M expenses	Rs lakh / MW						
Maintenance Spares for WC	% of O&M						
Receivables for WC	in Months						
Storage capacity of Primary fuel	MT						
SBI Base Rate + 350 basis points as on ³	%						
Blending ratio of domestic coal/imported coal							

1. For Coal based/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
3. Mention relevant date
4. Effective tax rate is to be computed in accordance with Regulation 25 i.e. actual tax (or advance tax)/gross income, where gross income refers the profit before tax.

(Petitioner)

**PART-I
FORM- 4**

Details of Foreign loans

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

Name of the Petitioner _____

Name of the Generating Station _____

Exchange Rate at COD or 31.03.2004, whichever is later _____

Exchange Rate as on 31.3.2014 _____

Sl.	Financial Year (Starting from COD)	Year 1				Year 2				Year 3 and so on			
1		2	3	4	5	6	7	8	9	10	11	12	13
		Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)
	Currency1¹												
A.1	At the date of Drawl or at the beginning to the year of the period ²												
2	Scheduled repayment date of principal												
3	Scheduled payment date of interest												
4	At the end of Financial year												
B	In case of Hedging ³												
1	At the date of hedging												
2	Period of hedging												
3	Cost of hedging												
	Currency2¹												
A.1	At the date of Drawl ²												
2	Scheduled repayment date of principal												
3	Scheduled payment date of interest												
4	At the end of Financial year												
B	In case of Hedging ³												
1	At the date of hedging												
2	Period of hedging												

Sl.	Financial Year (Starting from COD)	Year 1				Year 2				Year 3 and so on			
	1	2	3	4	5	6	7	8	9	10	11	12	13
		Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)
3	Cost of hedging												
	Currency³¹& so on												
A.1	At the date of Drawl ²												
2	Scheduled repayment date of principal												
3	Scheduled payment date of interest												
4	At the end of Financial year												
B	In case of Hedging ³												
1	At the date of hedging												
2	Period of hedging												
3	Cost of hedging												

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

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

3. Furnish details of hedging, in case of more than one hedging during the year or part hedging, details of each hedging are to be given

4. Tax (such as withholding tax) details as applicable including change in rates, date from which change effective etc. must be clearly indicated.

(Petitioner)

PART-I
FORM- 4A

Details of Foreign Equity

(Details only in respect of Equity infusion if any applicable to the project under petition)

Name of the Petitioner

Name of the Generating Station

Exchange Rate on date/s of infusion

Exchange Rate on date of infusion													
Sl.	Financial Year	Year 1				Year 2				Year 3 and so on			
	1	2	3	4	5	6	7	8	9	10	11	12	13
		Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)
	Currency1 ¹												
A.1	At the date of infusion ²												
2													
3													
	Currency2 ¹												
A.1	At the date of infusion ²												
2													
3													
	Currency3 ¹												
A.1	At the date of infusion ²												
2													
3													
	Currency ¹ and so on												
A.1	At the date of infusion ²												
2													
3													

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

2. In case of equity infusion more than once during the year, Exchange rate at the date of each infusion to be given

(Petitioner)

Abstract of Admitted Capital Cost for the existing Projects

Name of the Company _____
Name of the Power Station _____

Last date of order of Commission for the project	Date (DD-MM-YYYY)	
Reference of petition no. in which the above order was passed	Petition no.	
Following details (whether admitted and /or considered) as on the last date of the period for which tariff is approved, in the above order by the Commission:		
Capital cost	(Rs. in lakh)*	
Amount of un-discharged liabilities included in above (& forming part of admitted capital cost)		
Amount of un-discharged liabilities corresponding to above admitted capital cost (but not forming part of admitted capital cost being allowed on cash basis)		
Gross Normative Debt		
Cumulative Repayment		
Net Normative Debt		
Normative Equity		
Cumulative Depreciation		
Freehold land		

(Petitioner)

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Projects

Name of the Petitioner _____
Name of the Generating Station _____

New Projects

Capital Cost Estimates

Board of Director/ Agency approving the Capital cost estimates:		
Date of approval of the Capital cost estimates:		
	Present Day Cost	Completed Cost
Price level of approved estimates	As on 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, IEDC & FC		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Capital cost excluding IDC, IEDC, FC, FERV & Hedging Cost (Rs. Cr)		
IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Total IDC, IEDC, FC, FERV & Hedging Cost (Rs. Lakh)		
Rate of taxes & duties considered		
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		

Capital cost Including IDC, IEDC& FC (Rs. Lakh)	
Schedule of Commissioning	
Scheduled COD of Unit-I/Block-I as per Investment Approval	
Scheduled COD of Unit-II/Block-II as per Investment Approval	

Scheduled COD of last Unit/Block	

Note:

1. Copy of Investment 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-14.

(Petitioner)

Break-up of Capital Cost for New Coal/Lignite based projects

Name of the Petitioner _____
Name of the Generating Station _____

(Amount in Rs. Lakh)

Sl. No. (1)	Break Down (2)	As per Original Estimates as per Investment Approval(3)	Actual Capital Expenditure as on COD/anticipated COD (4)	Liabilities/ Provisions (5)	Variation (3-4-5) (6)	Specific Reasons for Variation (7)	Estimated Capital expenditure upto Cut-off date (8)
			Actual Amount				
1	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	Plant & Equipment						
2.1	Steam Generator Island						
2.2	Turbine Generator Island						
2.3	BOP Mechanical						
2.3.1	External water						

Sl. No. (1)	Break Down (2)	As per Original Estimates as per Investment Approval(3)	Actual Capital Expenditure as on COD/anticipated COD (4)	Liabilities/ Provisions (5)	Variation (3-4-5) (6)	Specific Reasons for Variation (7)	Estimated Capital expenditure upto Cut-off date (8)
			Actual Amount				
	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 Handling & 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						
2.3.15	FGD system, if any						
2.3.16	De-salination plant for sea-water intake						

Sl. No. (1)	Break Down (2)	As per Original Estimates as per Investment Approval(3)	Actual Capital Expenditure as on COD/anticipated COD (4)	Liabilities/ Provisions (5)	Variation (3-4-5) (6)	Specific Reasons for Variation (7)	Estimated Capital expenditure upto Cut-off date (8)
			Actual Amount				
2.3.17	External coal handling in Jetty, if any						
	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	Control & Instrumentation (C & I) Package						
	Total Plant & Equipment excluding taxes & Duties						
2.6	Taxes & Duties						

Sl. No. (1)	Break Down (2)	As per Original Estimates as per Investment Approval(3)	Actual Capital Expenditure as on COD/anticipated COD (4)	Liabilities/ Provisions (5)	Variation (3-4-5) (6)	Specific Reasons for Variation (7)	Estimated Capital expenditure upto Cut-off date (8)
			Actual Amount				
3	Initial Spares						
4	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 handling & 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.						

Sl. No. (1)	Break Down (2)	As per Original Estimates as per Investment Approval(3)	Actual Capital Expenditure as on COD/anticipated COD (4)	Liabilities/ Provisions (5)	Variation (3-4-5) (6)	Specific Reasons for Variation (7)	Estimated Capital expenditure upto Cut-off date (8)
			Actual Amount				
	construction & enabling works						
4.15	Road & Drainage						
	Total Civil works						
5	Construction & Pre-Commissioning Expenses						
	Erection Testing and commissioning						
5.1							
5.2	Site supervision						
	Operator's Training						
5.3							
5.4	Construction Insurance						
5.5	Tools & Plant						
5.6	Start up fuel						
	Total Construction & Pre-Commissioning Expenses						
6	Overheads						
6.1	Establishment						
	Design & Engineering						
6.2							

Sl. No. (1)	Break Down (2)	As per Original Estimates as per Investment Approval(3)	Actual Capital Expenditure as on COD/anticipated COD (4)	Liabilities/ Provisions (5)	Variation (3-4-5) (6)	Specific Reasons for Variation (7)	Estimated Capital expenditure upto Cut-off date (8)
			Actual Amount				
6.3	Audit & Accounts						
6.4	Contingency						
	Total Overheads						
7	Total Capital cost excluding IDC & FC						
8	IDC, FC, FERV & Hedging Cost						
8.1	Interest During Construction (IDC)						
8.2	Financing Charges (FC)						
8.3	Foreign Exchange Rate Variation (FERV)						
8.4	Hedging Cost						
	Total of IDC, FC, FERV & Hedging Cost						
9	Capital cost including IDC, FC, FERV & Hedging Cost						

**Provide details of Freehold land and Lease hold land separately*

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the generating company.
2. In case of both time & cost overrun, a detailed note giving reasons of such time and cost over-run should be submitted clearly bringing out the agency responsible and whether such time and cost overrun was beyond the control of the generating company.
3. The implication on cost due to time over run, if any shall be submitted separately giving details of increase in prices in different packages from scheduled COD to Actual COD/anticipated COD, increase in IEDC from scheduled COD to actual COD/anticipated COD and increase of IDC from scheduled COD to actual anticipated COD.
4. **Impact on account of each reason for Time over run on Cost of project should be quantified and substantiated with necessary documents and supporting workings.**
5. A list of balance work assets/work wise including initial spare on original scope of works along with estimate shall be furnished positively.

(Petitioner)

Break-up of Capital Cost for Gas/Liquid fuel based projects

Name of the Petitioner _____

Name of the Generating Station _____

Amount in Rs. Lakh)

Sl. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure	Liabilities/ Provisions	Variation (3-4-5)	Specific Reasons for Variation*	Actual/Estimated Capital Expenditure upto Cut-off date
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	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	Plant & Equipment						
2.1	Steam Generator Island						
2.2	Turbine Generator Island						
2.3	WHRB Island						
2.4	BOP Mechanical						
2.4.1	Fuel Handling & Storage system						
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						

Sl. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure	Liabilities/ Provisions	Variation (3-4-5)	Specific Reasons for Variation*	Actual/Estimated Capital Expenditure upto Cut-off date
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2.4.7	Chlorination Plant						
2.4.8	Air Condition & Ventilation System						
2.4.9	Fire fighting System						
2.4.10	HP/LP Piping						
	Total BOP Mechanical						
2.5	BOP Electrical						
2.5.1	Switch Yard Package						
2.5.2	Transformers Package						
2.5.3	Switch gear Package						
2.5.4	Cables, Cable facilities & grounding						
2.5.5	Lighting						
2.5.6	Emergency D.G. set						
	Total BOP Electrical						
2.6	Control & Instrumentation (C & I) Package						
	Total Plant & Equipment excluding taxes & Duties						
2.7	Taxes & Duties						
3	Initial Spares						
4	Civil Works						
4.1	Main plant/Adm. Building						

Sl. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure	Liabilities/ Provisions	Variation (3-4-5)	Specific Reasons for Variation*	Actual/Estimated Capital Expenditure upto Cut-off date
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
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	Fire fighting System						
	Total Civil works						
5	Construction & Pre-Commissioning Expenses						
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 Expenses						
6	Overheads						

Sl. No.	Break Down	As per Original Estimates as per Investment Approval	Actual Capital Expenditure	Liabilities/ Provisions	Variation (3-4-5)	Specific Reasons for Variation*	Actual/Estimated Capital Expenditure upto Cut-off date
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
6.1	Establishment						
6.2	Design & Engineering						
6.3	Audit & Accounts						
6.4	Contingency						
	Total Overheads						
7	Capital cost excluding IDC & FC						
8	IDC, FC, FERV & Hedging Cost						
8.1	Interest During Construction (IDC)						
8.2	Financing Charges (FC)						
8.3	Foreign Exchange Rate Variation (FERV)						
8.4	Hedging Cost						
	Total of IDC, FC, FERV & Hedging Cost						
9	Capital cost including IDC, FC, FERV & Hedging Cost						

*Provide details of Freehold land and Lease hold land separately

Note:

1. In case of cost variation , a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the generating company.

2. In case of time & cost overrun, a detailed note giving reasons of such time and cost over-run should be submitted clearly bringing out the agency responsible and whether such time and cost overrun was beyond the control of the generating company.
3. The implication on cost due to time over run, if any shall be submitted separately giving details of increase in prices in different packages from scheduled COD to Actual COD/anticipated COD, increase in IEDC from scheduled COD to actual COD/anticipated COD and increase of IDC from scheduled COD to actual anticipated COD.
4. **Impact on account of each reason for Time over run on Cost of project should be quantified and substantiated with necessary documents and supporting workings.**
A list of balance work assets/work wise including initial spare on original scope of works along with estimate shall be furnished positively

(Petitioner)

Break-up of Construction/Supply/Service packages

Name of the Petitioner _____
Name of the Generating Station _____

1	Name/No. of Construction / Supply / Service Package	Package A	Package B	Package C	...	Total Cost of all packages
2	Scope of works ¹ (in line with head of cost break-ups as applicable)					
3	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work					
4	No. of bids received					
5	Date of Award					
6	Date of Start of work					
7	Date of Completion of Work/Expected date of completion of work					
8	Value of Award ² in (Rs. Lakh)					
9	Firm or With Escalation in prices					
10	Actual capital expenditure till the completion or up to COD whichever is earlier (Rs.Lakh)					
11	Taxes & Duties and IEDC (Rs. Lakh)					
12	IDC, FC, FERV & Hedging cost (Rs. Lakh)					
13	Sub -total (10+11+12) (Rs. Lakh)					

Note:

1. The scope of work in any package should be indicated in conformity of 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 relevant 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 separately along with the currency, the exchange rate and the date e.g. Rs.80 Cr.+US\$ 50m=Rs.390Cr. at US\$=Rs 62 as on say 01.04.14.

(Petitioner)

PART-I
FORM- 5E

Details of variables, parameters, optional package etc. for New Project

Name of the Petitioner _____

Name of the Generating Station _____

Unit Size		
Number of Units		
Greenfield/Extension		
S. No.	Variables	(Design Operating Range) Values
1	Coal Quality – Calorific Value	
2	Ash Content	
3	Moisture Content	
4	Boiler Efficiency	
5	Suspended Particulate Matter	
6	Ash Utilization	
7	Boiler Configuration	
8	Turbine Heat Rate	
9	CW Temperature	
10	Water Source	
11	Distance of Water Source	
12	Clarifier	
13	Mode of Unloading Oil	
14	Coal Unholding Mechanism	
15	Type of Fly Ash Disposal and Distance	
16	Type of Bottom Ash Disposal and Distance	
17	Type of Soil	
18	Foundation Type (Chimney)	
19	Water Table	
20	Seismic and Wind Zone	
21	Condensate Cooling Method	
22	Desalination/RO Plant	
23	Evacuation Voltage Level	
24	Type of Coal (Domestic/Imported)	
Parameter/Variables		Values
Completion Schedule		
Terms of Payment		
Performance Guarantee Liability		
Basis of Price (Firm/Escalation-Linked)		
Equipment Supplier (Country of Origin)		
Optional Packages		Yes/No
Desalination Plant/RO Plant		
MGR		
Railway Siding		
Unloading Equipment at Jetty		
Rolling Stock/ Locomotive		
FGD Plant		
Length of Transmission Line till Tie Point (in km)		

(Petitioner)

PART-I
FORM- 5Ei

In case there is cost over run

Name of the Petitioner

Name of the Generating Station

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
1	Cost of Land & Site Development					
1.1	Land*					
1.2	Rehabilitation & Resettlement (R&R)					
1.3	Preliminary Investigation & Site Development					
2	Plant & Equipment					
2.1	Steam Generator Island					
2.2	Turbine Generator Island					
2.3	BOP Mechanical					
2.3.1	Fuel Handling & Storage system					
2.3.2	External water					

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
	supply system					
2.3.3	DM water Plant					
2.3.4	Clarification plant					
2.3.5	Chlorination Plant					
2.3.6	Fuel Handling & 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					

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
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	Control & Instrumentation (C & I) Package					
	Total Plant & Equipment excluding taxes & Duties					
3	Initial Spares					
4	Civil Works					
4.1	Main plant/ Adm. Building					

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
4.2	CW system					
4.3	Cooling Towers					
4.4	DM water Plant					
4.5	Clarification plant					
4.6	Chlorination plant					
4.7	Fuel handling & 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					

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
4.15	Road & Drainage					
	Total Civil works					
5	Construction & Pre-Commissioning Expenses					
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 Expenses					
6	Overheads					
6.1	Establishment					
6.2	Design & Engineering					
6.3	Audit &					

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
	Accounts					
6.4	Contingency					
	Total Overheads					
7	Capital cost excluding IDC & FC					
8	IDC, FC, FERV & Hedging Cost					
8.1	Interest During Construction (IDC)					
8.2	Financing Charges (FC)					
8.3	Foreign Exchange Rate Variation (FERV)					
8.4	Hedging Cost					
	Total of IDC, FC, FERV & Hedging Cost					
9	Capital cost including IDC, FC, FERV & Hedging Cost					

***Submit details of Freehold and Lease hold land**

Note: Impact on account of each reason for Cost overrun should be quantified and substantiated with necessary documents and supporting workings.

(Petitioner)

PART-I
FORM- 5Eii

In case there is time over run

Name of the Petitioner

Name of the Generating Station

Sr. No	Description of Activity /Works /Service	Original Schedule (As per Planning)		Actual Schedule (As per Actual)		Time Over-Run Days	Reasons for delay	Other Activity affected (Mention Sr No of activity affected)
		Start Date	Completion Date	Actual Start Date	Actual Completion Date			
1								
2								
3								
4								
5								
6								
7								
8								
9								
....							

1. Delay on account of each reason in case of time overrun should be quantified and substantiated with necessary documents and supporting workings.
2. Indicate the activities on critical path

(Petitioner)

**PART-I
FORM- 5F**

In case there is claim of additional RoE

Name of the Petitioner

Name of the Generating Station

Project	Completion Time as per Investment approval (Months)				Actual Completion time				Qualifying time schedule(as per regulation)
	Start Date	Scheduled COD (Date)	Completion time in Months	Installed Capacity	Start Date	Actual COD (Date)	Actual Completion time in Months	Tested Capacity	Months
Unit 1									
Unit 2									
Unit 3									
Unit 4									
....									
.....									

(Petitioner)

Financial Package upto COD

Name of the Petitioner _____
 Name of the Generating Station _____
 Project Cost as on COD¹ _____
 Date of Commercial Operation of the Station² _____

	Financial Package as Approved		Financial Package as on COD		As Admitted on COD	
	Currency and Amount ³		Currency and Amount ³		Currency and Amount ³	
1	2	3	4	5	6	7
Loan-I	US \$	200m				
Loan-II						
Loan-III						
and so on						
Equity-						
Foreign						
Domestic						
Total Equity						
Debt : Equity Ratio						

Note:

1. Say Rs. 80 Cr. + US\$ 200 m or Rs. 1320 Cr. including US\$ 200 m at an exchange rate of US\$=Rs62
2. Provide details on commercial operation as on COD of each Unit
3. For example : US \$ 200m, etc.

(Petitioner)

PART-I
FORM-7

Details of project specific loans

Name of the Petitioner
Name of the Generating Station

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 31.03.2014/ 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	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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

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 31.03.2014 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately 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, LIBOR 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/repayment may also be given separately
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawal & repayment along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2004 or COD, whichever is later
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing, etc.

(Petitioner)

Details of Allocation of corporate loans to various projects

Name of the Petitioner _____

Name of the Generating Station _____

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Remarks
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2014/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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Name of the Projects	Distribution of loan packages to various projects				Total
Project 1					
Project 2					
Project 3 and so on					

Note:

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 31.03.2014 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately 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, LIBOR 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/repayment may also be given separately.
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawal & repayment along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2004 or COD, whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately.
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

(Petitioner)

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner _____
 Name of the Generating Station _____
 COD _____
 For Financial Year _____

Sl. No.	Head of Work / Equipment	ACE Claimed (Actual / Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
(1)	(2)	(3)	(4)	(5=3-4)	(6)	(7)	(8)	(9)

1. In case the project has been completed and cost has already been admitted under any tariff notification(s) in the past, fill column 10 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order)
2. The above information needs to be furnished separately for each year / period of tariff period 2014-19.
3. In case of de-capitalisation of assets separate details to be furnished at column 1, 2, 3 and 4. Further, the original book value and year of capitalisation of such asset to be furnished at column 8. Where de-caps are on estimated basis the same to be shown separately.
4. Where any asset is rendered unserviceable the same shall be treated as de-capitalised during that year and original value of such asset to be shown at col. 3. And impaired value if any, year of its capitalisation to be mentioned at column 8.
5. Justification against each asset of capitalization should be specific to regulations under which claim has been made and the necessity of capitalization of that particular asset.

Note:

1. Fill the form in chronological order year wise along with detailed justification clearly bringing out the necessity and the benefits accruing to the beneficiaries.
2. In case initial spares are purchased along with any equipment, then the cost of such spares should be indicated separately. e.g. Rotor - 50 Crs. Initial spares- 5 Crs.

(Petitioner)

Statement of Additional Capitalisation during fag end of useful life of the Project

Name of the Petitioner _____
Name of the Generating Station _____
COD _____

Sl. No.	Year	Work / Equipment added during last five years of useful life of each Unit/Station	ACE Claimed (Actual / Projected)				Regulations under which claimed	Justification	Impact on life extension
			Accrual basis	Un- discharged Liability included in col. 4	Cash basis	IDC included in col. 4			
(1)	(2)	(3)	(4)	(5)	(6=4-5)	(7)	(8)	(9)	(10)

Note:

1. Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes.
2. Justification for additional capital expenditure claim for each asset should be relevant to regulations under which claim has been made and the necessity of capitalization of the asset.

(Petitioner)

Details of Assets De-capitalized during the period

Name of the Petitioner _____

Name of the Generating Station _____

Region _____

State _____

District _____

Sr. No.	Name of the Asset	Nature of de-capitalisation (whether claimed under exclusion or as additional capital expenditure)	Original Value of the Asset Capitalised	Year Put to use	Depreciation recovered till date of de- capitalization
1	2	3	4	5	6
1					
2					
3					
4					
5					

Note: Year wise detail need to be submitted.

Statement showing reconciliation of ACE claimed with the capital additions as per books

Name of the Petitioner

Name of the Generating Station

COD

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Closing Gross Block					
	Less: Opening Gross Block					
	Total Additions as per books					
	Less: Additions pertaining to other Stages (give Stage wise breakup)					
	Net Additions pertaining to instant project/Unit/Stage					
	Less: Exclusions (items not allowable / not claimed)					
	Net Additional Capital Expenditure Claimed					

Note: Reason for exclusion of any expenditure shall be given in Clear terms

(Petitioner)

Statement showing items/assets/works claimed under Exclusions:

Name of the Petitioner _____
 Name of the Generating Station _____
 COD _____

Sl. No.	Head of Work / Equipment	ACE Claimed under Exclusion				Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	
(1)	(2)	(3)	(4)	(5=3-4)	(6)	(7)

Note: 1. Exclusions claimed on assets not allowed in Tariff should be supported by the specific reference of Commission Order date, Petition No., amount disallowed, etc..

2. For inter unit transfer, nature of transfer i.e. temporary or permanent should be mentioned. It is to be certified that exclusion sought in receiving station only and not in sending station or in both the station.

(Petitioner)

Name of the Petitioner _____
Name of the Generating Station _____

Statement of Capital cost
(To be given for relevant dates and year wise)

(Amount in Rs. Lakh)

Sl. No.	Particulars	As on relevant date.
A	a) Opening Gross Block Amount as per books	
	b) Amount of capital liabilities in A(a) above	
	c) Amount of IDC in A(a) above	
	d) Amount of FC in A(a) above	
	e) Amount of FERV in A(a) above	
	f) Amount of Hedging Cost in A(a) above	
	g) Amount of IEDC in A(a) above	
B	a) Addition in Gross Block Amount during the period (Direct purchases)	
	b) Amount of capital liabilities in B(a) above	
	c) Amount of IDC in B(a) above	
	d) Amount of FC in B(a) above	
	e) Amount of FERV in B(a) above	
	f) Amount of Hedging Cost in B(a) above	
	g) Amount of IEDC in B(a) above	
C	a) Addition in Gross Block Amount during the period (Transferred from CWIP)	
	b) Amount of capital liabilities in C(a) above	
	c) Amount of IDC in C(a) above	

Sl. No.	Particulars	As on relevant date.
	d) Amount of FC in C(a) above	
	e) Amount of FERV in C(a) above	
	f) Amount of Hedging Cost in C(a) above	
	g) Amount of IEDC in C(a) above	
D	a) Deletion in Gross Block Amount during the period	
	b) Amount of capital liabilities in D(a) above	
	c) Amount of IDC in D(a) above	
	d) Amount of FC in D(a) above	
	e) Amount of FERV in D(a) above	
	f) Amount of Hedging Cost in D(a) above	
	g) Amount of IEDC in D(a) above	
E	a) Closing Gross Block Amount as per books	
	b) Amount of capital liabilities in E(a) above	
	c) Amount of IDC in E(a) above	
	d) Amount of FC in E(a) above	
	e) Amount of FERV in E(a) above	
	f) Amount of Hedging Cost in E(a) above	
	g) Amount of IEDC in E(a) above	

Note:

1.Relevant date/s means date of COD of unit/s/station and financial year start date and end date

(Petitioner)

Name of the Petitioner _____
Name of the Generating Station _____

Statement of Capital Woks in Progress
(To be given for relevant dates and year wise)

(Amount in Rs. Lakh)

Sl. No.	Particulars	As on relevant date
A	a) Opening CWIP as per books	
	b) Amount of capital liabilities in A(a) above	
	c) Amount of IDC in A(a) above	
	d) Amount of FC in A(a) above	
	e) Amount of FERV in A(a) above	
	f) Amount of Hedging Cost in A(a) above	
	g) Amount of IEDC in A(a) above	
B	a) Addition in CWIP during the period	
	b) Amount of capital liabilities in B(a) above	
	c) Amount of IDC in B(a) above	
	d) Amount of FC in B(a) above	
	e) Amount of FERV in B(a) above	
	f) Amount of Hedging Cost in B(a) above	
	g) Amount of IEDC in B(a) above	
C	a) Transferred to Gross Block Amount during the period	
	b) Amount of capital liabilities in C(a) above	
	c) Amount of IDC in C(a) above	
	d) Amount of FC in C(a) above	
	e) Amount of FERV in C(a) above	
	f) Amount of Hedging Cost in C(a) above	
	g) Amount of IEDC in C(a) above	

Sl. No.	Particulars	As on relevant date
D	a) Deletion in CWIP during the period	
	b) Amount of capital liabilities in D(a) above	
	c) Amount of IDC in D(a) above	
	d) Amount of FC in D(a) above	
	e) Amount of FERV in D(a) above	
	f) Amount of Hedging Cost in D(a) above	
	g) Amount of IEDC in D(a) above	
E	a) Closing CWIP as per books	
	b) Amount of capital liabilities in E(a) above	
	c) Amount of IDC in E(a) above	
	d) Amount of FC in E(a) above	
	e) Amount of FERV in E(a) above	
	f) Amount of Hedging Cost in E(a) above	
	g) Amount of IEDC in E(a) above	

Note:

1.Relevant date/s means date of COD of unit/s/station and financial year start date and end date

(Petitioner)

PART-I
FORM- 10

Financing of Additional Capitalisation

Name of the Petitioner
Name of the Generating Station
Date of Commercial Operation

(Amount in Rs Lakh)

Financial Year (Starting from COD) ¹	Actual					Admitted				
	Year 1	Year 2	Year 3	Year 4	Year 5 & so on	Year 1	Year 2	Year 3	Year 4	Year 5 & so on
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/Equipment										
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan ²										
Equity										
Internal Resources										
Others (Pl. specify)										
Total										

Note:

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

2 Loan details for meeting the additional capitalisation requirement should be given as per FORM-7 or 8 whichever is relevant.

(Petitioner)

PART-I
FORM- 11

Calculation of Depreciation

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

Sl. no.	Name of the Assets ¹	Gross Block as on 31.03.2014 or as on COD, whichever is later and subsequently for each year thereafter upto 31.3.19	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.19
	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 Rate of			
	Depreciation (%)			

**Provide details of Freehold land and Lease hold land separately*

Note:

1.Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)

Statement of Depreciation

Name of the Petitioner
Name of the Generating Station

(Amount in Rs Lakh)

Sl. No.	Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Opening Capital Cost						
	Closing Capital Cost						
	Average Capital Cost						
	Freehold land						
	Rate of depreciation						
	Depreciable value						
	Balance useful life at the beginning of the period						
	Remaining depreciable value						
	Depreciation (for the period)						
	Depreciation (annualised)						
	Cumulative depreciation at the end of the period						
	Less: Cumulative depreciation adjustment on account of un-discharged liabilities deducted as on 01.04.2009/Station COD						
	Less: Cumulative depreciation adjustment on account of de-capitalisation						
	Net Cumulative depreciation at the end of the period						

1. In case of details of FERV and AAD, give information for the applicable period.

(Petitioner)

PART-I
FORM- 13

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs. Lakh)

Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Loan-1						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan-2						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan-3 and so on						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						

Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Total Loan						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Interest on loan						
Weighted average Rate of Interest on Loans						

Note:

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

(Petitioner)

Calculation of Interest on Normative Loan

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

Sl. No.	Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Gross Normative loan - Opening						
	Cumulative repayment of Normative loan upto previous year						
	Net Normative loan - Opening						
	Add: Increase due to addition during the year / period						
	Less: Decrease due to de-capitalisation during the year / period						
	Less: Decrease due to reversal during the year / period						
	Add: Increase due to discharges during the year / period						
	Net Normative loan - Closing						
	Average Normative loan						
	Weighted average rate of interest						
	Interest on Loan						

(Petitioner)

PART-I
FORM- 13B

Calculation of Interest on Working Capital

Name of the Petitioner _____
 Name of the Generating Station _____

(Amount in Rs Lakh)

Sl. No.	Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5	6	7	8
1	Cost of Coal/Lignite ¹						
2	Cost of Main Secondary Fuel Oil ¹						
3	Fuel Cost ²						
4	Liquid Fuel Stock ²						
5	O & M Expenses						
6	Maintenance Spares						
7	Receivables						
8	Total Working Capital						
9	Rate of Interest						
10	Interest on Working Capital						

Note:

1. For Coal based/Lignite based generating stations
2. For Gas Turbine/Combined Cycle generating stations duly taking into account the annual mode of operation (last available) on gas fuel and liquid fuel

(Petitioner)

PART-I
FORM- 13C

Other Income as on COD

Name of the Petitioner

Name of the Generating Station

(Amount in Rs. Lakh)

Sl. No.	Parameters	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Interest on Loans and advance						
2	Interest received on deposits						
3	Income from Investment						
4	Income from sale of scrap						
5	Rebate for timely payment						
6	Surcharge on late payment from beneficiaries						
7	Rent from residential building						
8	Misc. receipts (Please Specify Details)						
...	...						
...	... (add)						

(Petitioner)

PART-I
FORM- 13D

Incidental Expenditure during Construction up to Scheduled COD and up to
Actual/anticipated COD

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs. Lakh)

Sl. No.	Parameters	As on Scheduled COD	As on actual COD/anticipated COD
A	Head of Expenses:		
1	Employees' Benefits Expenses		
2	Finance Costs		
3	Water Charges		
4	Communication Expenses		
5	Power Charges		
6	Other Office and Administrative Expenses		
7	Others (Please Specify Details)		
8	Other Pre-Operating Expenses		
...		
...		
B	Total Expenses		
	Less: Income from sale of tenders		
	Less: Income from guest house		
	Less: Income recovered from Contractors		
	Less: Interest on Deposits		
		

(Petitioner)

**PART-I
FORM- 13E**

Expenditure under different packages up to Scheduled COD and up to Actual/anticipated COD

Name of the Petitioner

Name of the Generating Station

(Amount in Rs. Lakh)

Sl. No.	Parameters	As on Scheduled COD	As on actual/anticipated COD
1	Package 1		
2	Package 2		
3	Package 3		
4	-----		
5	-----		
6			

(Petitioner)

PART-I
FORM- 14

Draw Down Schedule for Calculation of IDC & Financing Charges

Name of the Petitioner _____

Name of the Generating Station _____

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
1	Loans									
1.1	Foreign Loans									
1.1.1	Foreign Loan₁									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.2	Foreign Loan₂									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.3	Foreign Loan₃									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange									

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
	Rate Variation									
	Hedging Cost									
1.1.4	--									
	--									
	--									
1.1	Total Foreign Loans									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
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	--	--		--	--		--	--	

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
1.2.4	--	---	---		---	---		---	---	
	--	---	---		---	---		---	---	
	--	---	---		---	---		---	---	
1.2	Total Indian Loans									
	Draw down Amount	---	---		---	---		---	---	
	IDC	---	---		---	---		---	---	
	Financing charges	---	---		---	---		---	---	
1	Total of Loans drawn									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
2	Equity									
2.1	Foreign equity drawn									
2.2	Indian equity drawn	---	---		---	---		---	---	
	Total equity deployed									

Note:

1. Drawal of debt and equity shall be on paripassu basis quarter wise to meet the commissioning schedule. Drawal of higher equity in the beginning is permissible
2. Applicable interest rates including reset dates used for above computation may be furnished separately
3. In case of multi unit project details of capitalization ratio used to be furnished.

(Petitioner)

**PART-I
FORM- 14A****Actual cash expenditure****Name of the Petitioner****Name of the Generating Station**

(Amount in Rs. Lakh)

Particulars	Quarter-I	Quarter-II	Quarter-III	Quarter-n (COD)
Expenditure towards Gross Block				
Add: Expenditure towards CWIP				
Add: Capital Advances, if any				
Less: Un-discharged liabilities (included above)				
Add/Less: Others				
Payment to contractors / suppliers towards capital assets				
Cumulative payments				

Note: If there is variation between payment and fund deployment justification need to be furnished

(Petitioner)

PART-I
FORM- 15

Details/Information to be Submitted in respect of Fuel for Computation of
Energy Charges¹

Name of the Petitioner

Name of the Generating Station

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2014 as the case may be)		For preceding 2nd Month (from COD or from 1.4.2014 as the case may be)		For preceding 1st Month (from COD or from 1.4.2014 as the case may be)	
			Domestic	Imported	Domestic	Imported	Domestic	Imported
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/Lignite 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	(Rs.)						

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2014 as the case may be)		For preceding 2nd Month (from COD or from 1.4.2014 as the case may be)		For preceding 1st Month (from COD or from 1.4.2014 as the case may be)	
	rail/ship/road transport							
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	Landed cost of coal/ Lignite	Rs./MT						
16	Blending Ratio (Domestic/Imported)							
17	Weighted average cost of coal/ Lignite for preceding three months	Rs./MT						
18	GCV of Domestic Coal as per bill of Coal Company							
19	GCV of Imported Coal as per bill Coal Company							
20	Weighted average	(kCal/						

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2014 as the case may be)		For preceding 2nd Month (from COD or from 1.4.2014 as the case may be)		For preceding 1st Month (from COD or from 1.4.2014 as the case may be)	
	GCV of coal/ Lignite as Billed	Kg)						
21	GCV of Domestic Coal as received at Station							
22	GCV of Imported Coal as received at Station							
23	Weighted average GCV of coal/ Lignite as Received							

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 with appropriate units.
2. As billed and as received GCV, quantity of coal, and price should be submitted as certified by statutory auditor.

(Petitioner)

PART-I
FORM- 16

Details/Information to be Submitted in respect of Limestone for
Computation of Energy Charge Rate

Name of the Petitioner

Name of the Generating Station

Sl. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2014 as the case may be)	For preceding 2nd Month (from COD or from 1.4.2014 as the case may be)	For preceding 1st Month (from COD or from 1.4.2014 as the case may be)
1	Quantity of Limestone supplied by Limestone supply Company	(MMT)			
2	Adjustment (+/-) in quantity supplied made by Limestone supply Company	(MMT)			
3	Limestone supplied by Limestone supply Company(1+2)	(MMT)			
4	Net Limestone Supplied (3-4)	(MMT)			
5	Amount charged by the Limestone supply Company	(Rs.)			
6	Adjustment (+/-) in amount charged made by Limestone supply Company	(Rs.)			
7	Total amount Charged (6+7)	(Rs.)			
8	Transportation charges by rail/ship/road transport	(Rs.)			
9	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)			
10	Demurrage Charges, if any	(Rs.)			
11	Total Transportation Charges (8+/-9-10)	(Rs.)			
12	Total amount Charged for Limestone supplied including Transportation (7+11)	(Rs.)			

(Petitioner)

PART-I
FORM- 17

Details/Information to be Submitted in respect of Capital Spares

Name of the Petitioner _____

Name of the Generating Station _____

Sl. No.	Details of Capital Spares and Expenses		Claimed as a part of additional Capitalisation	Funded through compensatory allowance	Funded through Special allowance (If Applicable)	Claimed as a part of stores and spares
	Name of spare	Amount				
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

Liability Flow Statement

Name of the Petitioner

Name of the Generating Station

Party	Asset / Work	Year of actual capitalisation	Original Liability	Liability as on 31.03.2014	Discharges (Year wise)	Reversal (Year wise)

(Petitioner)

TARIFF FILING FORMS (HYDRO)

FOR DETERMINATION OF TARIFF

PART-II

Annexure-I

PART-II**Checklist of Forms and other information/ documents for tariff filing for
Hydro Stations**

Form No.	Title of Tariff Filing Forms (Hydro)	Tick
FORM- 1	Summary Sheet	
FORM-2	Details of COD, Type of hydro station, Normative Annual Plant Availability Factor(NAPAF) & Other normative parameters considered for tariff calculation	
FORM-3	Salient Features of Hydroelectric Project	
FORM- 4	Details of Foreign loans	
FORM- 4A	Details of Foreign Equity	
FORM-5	Abstract of Admitted Capital Cost for the existing Projects	
FORM-5A	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects	
FORM-5B	Break-up of Capital Cost for Hydro Power Generating Station	
FORM-5C	Break-up of Capital Cost for Plant & Equipment	
FORM-5D	Break-up of Construction/Supply/Service packages	
FORM-5Ei	In case there is cost over run	
FORM-5Eii	In case there is time over run	
FORM-5F	In case there is claim of additional RoE	
FORM- 6	Financial Package upto COD	
FORM- 7	Details of Project Specific Loans	
FORM- 8	Details of Allocation of corporate loans to various projects	
FORM-9A	Statement of Additional Capitalisation after COD	
FORM 9B	Statement of Additional Capitalisation during fag end of the Project	
FORM 9Bi	Details of Asset De-capitalised during the period	
FORM- 9C	Statement showing reconciliation of ACE claimed with the capital additions as per books	
FORM- 9D	Statement showing items/assets/works claimed under Exclusions	
FORM- 9E	Statement of Capital cost	
FORM- 9F	Statement of Capital Woks in Progress	
FORM- 10	Financing of Additional Capitalisation	

Form No.	Title of Tariff Filing Forms (Hydro)	Tick
FORM- 11	Calculation of Depreciation	
FORM- 12	Statement of Depreciation	
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	
FORM- 13A	Calculation of Interest on Normative Loan	
FORM- 13 B	Calculation of Interest on Working Capital	
FORM- 13 C	Other Income as on COD	
FORM- 13 D	Incidental Expenditure during Construction	
FORM- 14	Draw Down Schedule for Calculation of IDC & Financing Charges	
FORM- 14A	Actual cash expenditure	
FORM- 15A	Design energy and peaking capability (month wise)- ROR with Pondage/Storage type new stations	
FORM- 15B	Design energy and MW Continuous (month wise)- ROR type stations	
FORM- 16	Liability Flow Statement	
Other Information/ Documents		
Sl. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement 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	A. Station wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on COD of the Station for the new station & for the relevant years. B. Station wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the existing 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.	

Form No.	Title of Tariff Filing Forms (Hydro)	Tick
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 cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	
8	Generating Company shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the Generating Unit wise /stage wise/Station wise/ and subsequently consolidated at Company level as submitted to the Govt. of India for first two years i.e. 2014-15 and 2015-16 at the time of mid-term true-up in 2016-17 and for balance period of tariff period 2014-19 at the time of final true-up in 2019-20. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
9	Any other relevant information, (Please specify)	
10.	Reconciliation with Balance sheet of any actual additional capitalization and amongst stages of a generating station	

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted shall also be furnished in the form of CD/Floppy disc.

**PART-II
FORM- 1**

Summary Sheet

Name of the Petitioner: _____

Name of the Generating Station: _____

Place (Region/District/State): _____

(Rs. lakh)

Sl. No.	Particulars		Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2		3	4	5	6	7	8
1.1	Depreciation							
1.2	Interest on Loan							
1.3	Return on Equity ¹							
1.4	Interest on Working Capital							
1.5	O & M Expenses							
	Total							

Note

1: Details of calculations, considering equity as per regulation, to be furnished.

Form-1(I) -Statement showing claimed capital cost:

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Opening Capital Cost					
	Add: Addition during the year / period					
	Less: Decapitalisation during the year / period					
	Less: Reversal during the year / period					
	Add: Discharges during the year / period					
	Closing Capital Cost					
	Average Capital Cost					

Form-1(II) –Statement showing Return on Equity:

(Rs. In Lakh)

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Opening Equity					
	Add: Increase due to addition during the year / period					
	Less: Decrease due to de-capitalisation during the year / period					
	Less: Decrease due to reversal during the year / period					
	Add: Increase due to discharges during the year / period					
	Closing Equity					
	Average Equity					
	Rate of ROE					
	Return on Equity					

(Petitioner)

**PART-II
FORM- 2**

Details of COD, Type of hydro station, Normative Annual Plant Availability Factor (NAPAF) & Other normative parameters considered for tariff calculation

Name of the Petitioner: _____

Name of the Generating Station: _____

Year Ending March

	Particulars	Unit	Existing 2013-14	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Installed Capacity	MW						
2	Free power to home state	%						
3	Date of commercial operation (actual/ anticipated)							
	Unit-1							
	Unit-2							
	Unit-3							
4	Type of Station							
	a) Surface/ underground							
	b) Purely ROR/ Pondage/Storage							
	c) Peaking/ non-peaking							
	d) No. of hours of peaking							
	e) Overload capacity(MW) & period							
5	Type of excitation							
	a) Rotating exciters on generator							
	b) Static excitation							
6	Design Energy (Annual)1	GWh						
7	Auxiliary Consumption including Transformation losses	%						
8	Normative Plant Availability Factor (NAPAF)							

	Particulars	Unit	Existing 2013-14	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
9.1	Maintenance Spares for WC	% of O&M						
9.2	Receivables for WC	in Months						
9.3	Base Rate of Return on Equity	%						
9.4	Tax Rate ²	%						
9.5	Effective Tax Rate ⁴							
9.6	SBI Base Rate + 350 basis points as on ³	%						

1. Month wise 10-day Design energy figures to be given separately with the petition.
2. Tax rate applicable to the company for the year FY 2013-14 should also be furnished.
3. Mention relevant date
4. Effective tax rate is to be computed in accordance with Regulation 25 i.e. actual tax (or advance tax)/ gross income, where gross income refers the profit before tax.

(Petitioner)

Salient Features of Hydroelectric Project

Name of the Petitioner: _____

Name of the Generating Station: _____

1. Location	
State/Distt.	
River	
2. Diversion Tunnel	
Size, shape	
Length (M)	
3. Dam	
Type	
Maximum dam height (M)	
4. Spillway	
Type	
Crest level of spillway (M)	
5. Reservoir	
Full Reservoir Level (FRL) (M)	
Minimum Draw Down Level (MDDL) (M)	
Live storage (MCM)	
6. De-silting Chamber	
Type	
Number and Size	
Particle size to be removed(mm)	
7. Head Race Tunnel	
Size and type	
Length (M)	
Design discharge (Cumecs)	
8. Surge Shaft	
Type	
Diameter (M)	
Height (M)	
9. Penstock/Pressure shafts	
Type	
Diameter & Length (M)	
10. Power House	
Installed capacity (No of units x MW)	
Type of turbine	
Rated Head(M)	
Rated Discharge (Cumecs)	
Head at Full Reservoir Level (M)	
Head at Minimum Draw down Level (M)	
MW Capability at FRL	

MW Capability at MDDL	
11. Tail Race Tunnel/Channel	
Diameter (M) , shape	
Length (M)	
Minimum tail water level (M)	
12. Switchyard	
Type of Switch gear	
No. of generator bays	
No. of Bus coupler bays	
No. of line bays	

Note: Specify limitation on generation during specific time period(s) on account of restrictions on water use due to irrigation, drinking water, industrial, environmental considerations etc.

(Petitioner)

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

[illegible]

Sl.	Financial Year (Starting from COD)	Year 1				Year 2				Year 3 and so on			
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Currency³¹& so on												
A.1	At the date of Drawl ²												
2	Scheduled repayment date of principal												
3	Scheduled payment date of interest												
4	At the end of Financial year												
B	In case of Hedging ³												
1	At the date of hedging												
2	Period of hedging												
3	Cost of hedging												

1. Name of the currency to be mentioned e.g. US\$, DM, etc.
2. In case of more than one drawl during the year, Exchange rate at the date of each drawl to be given
3. Furnish details of hedging, in case of more than one hedging during the year or part hedging, details of each hedging are to be given
4. Tax (such as withholding tax) details as applicable including change in rates, date from which change effective etc. must be clearly indicated.

(Petitioner)

PART-II
FORM- 4A
Details of Foreign Equity

(Details only in respect of Equity infusion if any applicable to the project under petition)

Name of the Petitioner _____

Name of the Generating Station _____

Exchange Rate on date/s of infusion _____

Sl.	Financial Year	Year 1				Year 2				Year 3 and so on			
	1	2	3	4	5	6	7	8	9	10	11	12	13
		Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs. Lakh)
	Currency1¹												
A.1	At the date of infusion ²												
2													
3													
	Currency2¹												
A.1	At the date of infusion ²												
2													
3													
	Currency3¹												
A.1	At the date of infusion ²												
2													
3													
	Currency4¹ and so on												
A.1	At the date of infusion ²												
2													
3													

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

2. In case of equity infusion more than once during the year, Exchange rate at the date of each infusion to be given

(Petitioner)

PART-II
FORM- 5

Abstract of Admitted Capital Cost for the existing Projects

Name of the Petitioner _____
Name of the Generating Station _____

	Capital Cost as admitted by CERC	
a)	Capital cost admitted as on _____ (Give reference of the relevant CERC Order with Petition No. & Date)	
b)	Foreign Component, if any (In Million US \$ or the relevant Currency)	
c)	Foreign Exchange rate considered for the admitted Capital cost (Rs Lakh)	
d)	Total Foreign Component (Rs. Lakh)	
e)	Domestic Component (Rs. Lakh.)	
f)	Hedging cost, if any, considered for the admitted Capital cost (Rs Lakh)	
	Total Capital cost admitted (Rs. Lakh) (d+e+f)	

(Petitioner)

PART-II
FORM- 5A

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Projects

Name of the Petitioner _____

Name of the Generating Station _____

New Projects

Capital Cost Estimates

Board of Director/ Agency approving the Capital cost estimates:		
Date of approval of the Capital cost estimates:		
	Present Day Cost	Completed Cost
Price level of approved estimates	As on 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, IEDC& FC		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Capital cost excluding IDC, IEDC, FC, FERV & Hedging Cost (Rs. Lakh)		
IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Total IDC, IEDC, FC, FERV & Hedging Cost (Rs. Lakh)		
Rate of taxes & duties considered		
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Capital cost Including IDC, IEDC& FC (Rs. Lakh)		
Schedule of Commissioning as per investment approval		
Scheduled COD of Unit-I		

Scheduled COD of Unit-II	
<small>For details see Form 5B or 5C as applicable</small>	
<small>For details see Form 14 as applicable</small>	
Scheduled COD of last Unit/Station	

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-14.

(Petitioner)

Break-up of Capital Cost for New Hydro Power Generating Station

Name of the Petitioner _____
 Name of the Generating Station _____

(Amount in Rs Lakh)

Sl. No. (1)	Break Down (2)	Original Cost as approved by Authority/Investment Approval (3)	Actual Capital Expenditure as on actual/anticipated COD (4)	Liabilities/ Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)
1.0	Infrastructure Works					
1.1	Preliminary including Development					
1.2	Land*					
1.3	R&R expenditure					
1.4	Buildings					
1.5	Township					
1.6	Maintenance					
1.7	Tools & Plants					
1.8	Communication					
1.9	Environment & Ecology					
1.10	Losses on stock					
1.11	Receipt & Recoveries					
1.12	Total (Infrastructure works)					
2.0	Major Civil Works					
2.1	Dam, Intake & De-					

Sl. No. (1)	Break Down (2)	Original Cost as approved by Authority/Investment Approval (3)	Actual Capital Expenditure as on actual/anticipated COD (4)	Liabilities/Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)
	silting Chambers					
2.2	HRT, TRT, Surge Shaft & Pressure shafts					
2.3	Power Plant civil works					
2.4	Other civil works (to be specified)					
2.5	Total (Major Civil Works)					
3.0	Hydro Mechanical equipments					
4.0	Plant & Equipment					
4.1	Initial spares of Plant & Equipment					
4.2	Total (Plant & Equipment)					
5.0	Taxes and Duties					
5.1	Custom Duty					
5.2	Other taxes & Duties					
5.3	Total Taxes & Duties					
6.0	Construction & Pre-commissioning expenses					
6.1	Erection, testing & commissioning					

Sl. No. (1)	Break Down (2)	Original Cost as approved by Authority/Investment Approval (3)	Actual Capital Expenditure as on actual/anticipated COD (4)	Liabilities/Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)
6.2	Construction Insurance					
6.3	Site supervision					
6.4	Total (Const. & Pre-commissioning)					
7.0	Overheads					
7.1	Establishment					
7.2	Design & Engineering					
7.3	Audit & Accounts					
7.4	Contingency					
7.5	Rehabilitation & Resettlement					
7.6	Total (Overheads)					
8.0	Capital Cost without IDC, FC, FERV & Hedging Cost					
9.0	IDC, FC, FERV & Hedging Cost					
9.1	Interest During Construction (IDC)					
9.2	Financing Charges (FC)					
9.3	Foreign Exchange Rate Variation (FERV)					
9.4	Hedging Cost					

Sl. No. (1)	Break Down (2)	Original Cost as approved by Authority/Investment Approval (3)	Actual Capital Expenditure as on actual/anticipated COD (4)	Liabilities/Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)
9.5	Total of IDC, FC, FERV & Hedging Cost					
10.0	Capital cost including IDC, FC, FERV & Hedging Cost					

**Provide details of Freehold Land, Leasehold Land and Land under reservoir separately*

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the generating company.
2. In case of both time & cost overrun, a detailed note giving reasons of such time and cost over-run should be submitted clearly bringing out the agency responsible and whether such time and cost overrun was beyond the control of the generating company.
3. The implication on cost due to time over run, if any shall be submitted separately giving details of increase in prices in different packages from scheduled COD to Actual COD/anticipated COD, increase in IEDC from scheduled COD to actual COD/anticipated COD and increase of IDC from scheduled COD to actual anticipated COD.
4. **Impact on account of each reason for Time over run on Cost of project should be quantified and substantiated with necessary documents and supporting workings.**
5. A list of balance work assets/work wise including initial spare on original scope of works along with estimate shall be furnished positively.

(Petitioner)

**PART-II
FORM- 5C**

Tariff Regulations 2014-19

Break-up of Capital Cost for Plant & Equipment (New Projects)

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs Lakh)

Sl. No. (1)	Break Down (2)	Original Cost as approved by Authority/Investment Approval (1)	Cost on Actual/anticipated COD (1)	Variation	Reasons for Variation*
		Total Cost	Total Cost	(3)	(4)
1.0	Generator, turbine & Accessories				
1.1	Generator package				
1.2	Turbine package				
1.3	Unit control Board				
1.4	C&I package				
1.5	Bus Duct of GT connection				
1.6	Total (Generator, turbine & Accessories)				
2.0	Auxiliary Electrical Equipment				
2.1	Step up transformer				
2.2	Unit Auxiliary Transformer				
2.3	Local supply transformer				
2.4	Station transformer				
2.5	SCADA				
2.6	Switchgear, Batteries, DC dist. Board				

Sl. No. (1)	Break Down (2)	Original Cost as approved by Authority/Investment Approval (1)	Cost on Actual/anticipated COD (1)	Variation	Reasons for Variation*
		Total Cost	Total Cost	(3)	(4)
2.7	Telecommunication equipment				
2.8	Illumination of Dam, PH and Switchyard				
2.9	Cables & cable facilities, grounding				
2.10	Diesel generating sets				
2.11	Total (Auxiliary Elect. Equipment)				
3.0	Auxiliary equipment & services for power station				
3.1	EOT crane				
3.2	Other cranes				
3.3	Electric lifts & elevators				
3.4	Cooling water system				
3.5	Drainage & dewatering system				
3.6	Fire fighting equipment				
3.7	Air conditioning, ventilation and heating				
3.8	Water supply system				
3.9	Oil handling equipment				
3.10	Workshop machines & equipment				
3.11	Total (Auxiliary equipt. & services for PS)				

Sl. No. (1)	Break Down (2)	Original Cost as approved by Authority/Investment Approval (1)	Cost on Actual/anticipated COD (1)	Variation	Reasons for Variation*
		Total Cost	Total Cost	(3)	(4)
4.0	Switchyard package				
5.0	Initial spares for all above equipments				
6.0	Total Cost (Plant & Equipment) excluding IDC, FC, FERV & Hedging Cost				
7.0	IDC, FC, FERV & Hedging Cost				
7.1	Interest During Construction (IDC)				
7.2	Financing Charges (FC)				
7.3	Foreign Exchange Rate Variation (FERV)				
7.4	Hedging Cost				
7.5	Total of IDC, FC, FERV & Hedging Cost				
8.0	Total Cost (Plant & Equipment) including IDC, FC, FERV & Hedging Cost				

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost overrun was beyond the control of the generating company.

(Petitioner)

Break-up of Construction/Supply/Service packages

Name of the Petitioner _____

Name of the Generating Station _____

1	Name/No. of Construction/ Supply / Service Package	Package A	Package B	Package C	...	Total Cost of all packages
2	Scope of works ¹ (in line with head of cost break-ups as applicable)					
3	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work					
4	No. of bids received					
5	Date of Award					
6	Date of Start of work					
7	Date of Completion of Work/Expected date of completion of work					
8	Value of Award ² in (Rs. Lakh)					
9	Firm or With Escalation in prices					
10	Actual capital expenditure till the completion or up to COD whichever is earlier(Rs.Lakh)					
11	Taxes & Duties and IEDC (Rs. Lakh)					
12	IDC, FC, FERV & Hedging cost (Rs. Lakh)					
13	Sub -total (10+11+12) (Rs. Lakh)					

Note:

1. If there is any package, which need to be shown in Indian Rupee and foreign currency(ies), the same should be shown separately along with the currency, the exchange rate and the date

(Petitioner)

PART-II
FORM- 5Ei

In case there is cost over run

Name of the Petitioner
Name of the Generating Station

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
1	Cost of Land & Site Development					
1.1	Land*					
1.2	Rehabilitation & Resettlement (R&R)					
1.3	Preliminary Investigation & Site Development					
2	Plant & Equipment					
2.1	Steam Generator Island					
2.2	Turbine Generator Island					
2.3	BOP Mechanical					
2.3.1	Fuel Handling & Storage system					
2.3.2	External water supply system					

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
2.3.3	DM water Plant					
2.3.4	Clarification plant					
2.3.5	Chlorination Plant					
2.3.6	Fuel Handling & 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					

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
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	Control & Instrumentation (C & I) Package					
	Total Plant & Equipment excluding taxes & Duties					
3	Initial Spares					
4	Civil Works					
4.1	Main plant/ Adm. Building					
4.2	CW system					

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
4.3	Cooling Towers					
4.4	DM water Plant					
4.5	Clarification plant					
4.6	Chlorination plant					
4.7	Fuel handling & 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					

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
	&Drainage					
	Total Civil works					
5	Construction & Pre-Commissioning Expenses					
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 Expenses					
6	Overheads					
6.1	Establishment					
6.2	Design & Engineering					
6.3	Audit & Accounts					

Sl. No.	Break Down	Original Cost (Rs.Lakh) as approved by the Board of Members	Actual/Estimated Cost as incurred/to be incurred(Rs. Lakh)	Difference	Reasons for Variation(Please submit supporting computations and documents wherever applicable)	Increase in soft cost due to increase in hard cost
		Total Cost	Total Cost	Total Cost		
6.4	Contingency					
	Total Overheads					
7	Capital cost excluding IDC & FC					
8	IDC, FC, FERV & Hedging Cost					
8.1	Interest During Construction (IDC)					
8.2	Financing Charges (FC)					
8.3	Foreign Exchange Rate Variation (FERV)					
8.4	Hedging Cost					
	Total of IDC, FC, FERV & Hedging Cost					
9	Capital cost including IDC, FC, FERV & Hedging Cost					

***Submit details of Freehold and Lease hold land**

Note: Impact on account of each reason for Cost overrun should be quantified and substantiated with necessary documents and supporting workings.

(Petitioner)

In case there is time over run

Name of the Petitioner

Name of the Generating Station

S. No	Description of Activity/ Works/ Service	Original Schedule (As per Planning)		Actual Schedule (As per Actual)		Time Over-Run	Reasons for delay	Other Activity effected (Mention Sr No of activity affected)
		Start Date	Completion Date	Actual Start Date	Actual Completion Date	Days		
1								
2								
3								
4								
5								
6								
7								
8								
9								
....							

1. Delay on account of each reason in case of time overrun should be quantified and substantiated with necessary documents and supporting workings.
2. Indicates the activities on critical path.

(Petitioner)

In case there is claim of additional RoE

Name of the Petitioner

Name of the Generating Station

Project	Completion Time as per Investment approval (Months)				Actual Completion time				Qualifying time schedule(as per regulation)
	Start Date	Scheduled COD (Date)	Months	Installed Capacity	Start Date	Actual COD (Date)	Actual Completion time in Months	Tested Capacity	Months
Unit 1									
Unit 2									
Unit 3									
Unit 4									
....									
.....									

Note: Necessary documentary evidence in support of actual completion time to be submitted in accordance with Regulation 5(1).

(Petitioner)

PART-II
FORM- 6

Financial Package upto COD

Name of the Petitioner _____
 Name of the Generating Station _____
 Project Cost as on COD¹ _____
 Date of Commercial Operation of the Station² _____

	Financial Package as Approved		Financial Package as on COD		As Admitted on COD	
	Currency and Amount ³		Currency and Amount ³		Currency and Amount ³	
1	2	3	4	5	6	7
Loan-I	US \$	200m				
Loan-II						
Loan-III						
and so on						
Equity-						
Foreign						
Domestic						
Total Equity						
Debt : Equity Ratio						

Note:

1. Say Rs. 80 Cr. + US\$ 200 m or Rs. 1320 Cr. including US\$ 200 m at an exchange rate of US\$=Rs62
2. Date of Commercial Operation means Commercial Operation of the last unit
3. For example : US \$ 200m, etc.

(Petitioner)

PART-II
FORM- 7

Details of Project Specific Loans

Name of the Petitioner _____
Name of the Generating Station _____

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2014/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	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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

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 31.03.2014 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately 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, LIBOR etc. over which the margin is to be added. Documentary evidence for 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/repayment may also be given separately
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawal & repayment along with exchange rate at that date may be given with documentary evidence.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2014 for existing assets and as on COD for the remaining assets.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.
21. Call or put option, if any exercised by the generating company for refinancing of loan
22. Copy of loan agreement

(Petitioner)

PART-II
FORM- 8

Details of Allocation of corporate loans to various projects

Name of the Petitioner _____
Name of the Generating Station _____

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Remarks
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2014/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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						
	Distribution of loan packages to various projects					
Name of the Projects						Total
Project 1						
Project 2						
Project 3 and so on						

Note:

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 31.03.2014 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately 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, LIBOR etc. over which the margin is to be added. Documentary evidence for 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/repayment may also be given separately
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawal & repayment along with exchange rate at that date may be given with documentary evidence.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2014 for existing assets and as on COD for the remaining assets.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.
21. Call or put option, if any exercised by the generating company for refinancing of loan
22. Copy of loan agreement

(Petitioner)

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner _____
Name of the Generating Station _____
COD _____
For Financial Year _____

Sl. No.	Head of Work / Equipment	ACE Claimed (Actual / Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
(1)	(2)	(3)	(4)	(5=3-4)	(6)	(7)	(8)	(9)

1. In case the project has been completed and cost has already been admitted under any tariff notification(s) in the past, fill column 10 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order)
2. The above information needs to be furnished separately for each year / period of tariff period 2014-19.
3. In case of de-capitalisation of assets separate details to be furnished at column 1, 2, 3 and 4. Further, the original book value and year of capitalisation of such asset to be furnished at column 8. Where de-caps are on estimated basis the same to be shown separately.
4. Where any asset is rendered unserviceable the same shall be treated as de-capitalised during that year and original value of such asset to be shown at col. 3. And impaired value if any, year of its capitalisation to be mentioned at column 8.
5. Justification against each asset of capitalization should be specific to regulations under which claim has been made and the necessity of capitalization of that particular asset.

Note:

1. Fill the form in chronological order year wise along with detailed justification clearly bringing out the necessity and the benefits accruing to the beneficiaries.
2. In case initial spares are purchased along with any equipment, then the cost of such spares should be indicated separately. e.g. Rotor - 50 Crs. Initial spares- 5 Crs.

(Petitioner)

Statement of Additional Capitalisation during fag end of the Project

Name of the Petitioner _____

Name of the Generating Station _____

COD _____

Sr. No.	Year	Work/Equipment added during last five years of useful life of each Unit/Station	Amountcapitalised / Proposed to be capitalised (Rs Lakh)	Justification for capitalisation proposed	Impact on life extension
1	2	3	4	5	6
1					
2					
3					
4					
5					

Note:

1. Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes.
2. Justification for additional capital expenditure claim for each asset should be relevant to regulation under which claim and the necessity of capitalization of the asset.

(Petitioner)

Details of Assets De-capitalized during the period

Name of the Petitioner _____
 Name of the Generating Station _____
 Region _____ State _____ District _____

Sr. No.	Name of the Asset	Nature of de-capitlization (whether claimed under exclusion or as additional capital expenditure)	Original Value of the Asset Capitalised	Year Put to use	Depreciation recovered till date of de- capitalization
1	2	3	4	5	6
1					
2					
3					
4					
5					

Note: Year wise detail need to be submitted.

Statement showing reconciliation of ACE claimed with the capital additions as per books

Name of the Petitioner _____

Name of the Generating Station _____

COD _____

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Closing Gross Block					
	Less: Opening Gross Block					
	Total Additions as per books					
	Less: Additions pertaining to other Stages (give Stage wise breakup)					
	Net Additions pertaining to instant project/Unit/Stage					
	Less: Exclusions (items not allowable / not claimed)					
	Net Additional Capital Expenditure Claimed					

Note: Reason for exclusion of any expenditure shall be given in Clear terms

(Petitioner)

Statement showing items/assets/works claimed under Exclusions:

Name of the Petitioner _____
Name of the Generating Station _____
COD _____

Sl. No.	Head of Work / Equipmen t	ACE Claimed under Exclusion				Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	
(1)	(2)	(3)	(4)	(5=3-4)	(6)	(7)

Note: 1. Exclusions claimed on assets not allowed in Tariff should be supported by the specific reference of Commission Order date, Petition No., amount disallowed, etc..
2. For inter unit transfer, nature of transfer i.e. temporary or permanent should be mentioned. It is to be certified that exclusion sought in receiving station only and not in sending station or in both the station.

(Petitioner)

**PART-II
FORM- 9E**

Name of the Petitioner _____
 Name of the Generating Station _____

Statement of Capital cost
 (To be given for relevant dates and year wise)

(Amount in Rs. Lakh)

Sl. No.	Particulars	As on relevant date.
A	a) Opening Gross Block Amount as per books	
	b) Amount of capital liabilities in A(a) above	
	c) Amount of IDC in A(a) above	
	d) Amount of FC in A(a) above	
	e) Amount of FERV in A(a) above	
	f) Amount of Hedging Cost in A(a) above	
	g) Amount of IEDC in A(a) above	
B	a) Addition in Gross Block Amount during the period (Direct purchases)	
	b) Amount of capital liabilities in B(a) above	
	c) Amount of IDC in B(a) above	
	d) Amount of FC in B(a) above	
	e) Amount of FERV in B(a) above	
	f) Amount of Hedging Cost in B(a) above	
	g) Amount of IEDC in B(a) above	
C	a) Addition in Gross Block Amount during the period (Transferred from CWIP)	
	b) Amount of capital liabilities in C(a) above	
	c) Amount of IDC in C(a) above	
	d) Amount of FC in C(a) above	
	e) Amount of FERV in C(a) above	
	f) Amount of Hedging Cost in C(a) above	
	g) Amount of IEDC in C(a) above	

Sl. No.	Particulars	As on relevant date.
D	a) Deletion in Gross Block Amount during the period	
	b) Amount of capital liabilities in D(a) above	
	c) Amount of IDC in D(a) above	
	d) Amount of FC in D(a) above	
	e) Amount of FERV in D(a) above	
	f) Amount of Hedging Cost in D(a) above	
	g) Amount of IEDC in D(a) above	
E	a) Closing Gross Block Amount as per books	
	b) Amount of capital liabilities in E(a) above	
	c) Amount of IDC in E(a) above	
	d) Amount of FC in E(a) above	
	e) Amount of FERV in E(a) above	
	f) Amount of Hedging Cost in E(a) above	
	g) Amount of IEDC in E(a) above	

Note:

1. Relevant date/s means date of COD of unit/s/station and financial year start date and end date

(Petitioner)

PART-II
FORM- 9F

Name of the Petitioner _____
Name of the Generating Station _____

Statement of Capital Woks in Progress
(To be given for relevant dates and year wise)

(Amount in Rs. Lakh)

Sl. No.	Particulars	As on relevant date.
A	a) Opening CWIP as per books	
	b) Amount of capital liabilities in A(a) above	
	c) Amount of IDC in A(a) above	
	d) Amount of FC in A(a) above	
	e) Amount of FERV in A(a) above	
	f) Amount of Hedging Cost in A(a) above	
	g) Amount of IEDC in A(a) above	
B	a) Addition in CWIP during the period	
	b) Amount of capital liabilities in B(a) above	
	c) Amount of IDC in B(a) above	
	d) Amount of FC in B(a) above	
	e) Amount of FERV in B(a) above	
	f) Amount of Hedging Cost in B(a) above	
	g) Amount of IEDC in B(a) above	
C	a) Transferred to Gross Block Amount during the period	
	b) Amount of capital liabilities in C(a) above	
	c) Amount of IDC in C(a) above	
	d) Amount of FC in C(a) above	
	e) Amount of FERV in C(a) above	
	f) Amount of Hedging Cost in C(a) above	
	g) Amount of IEDC in C(a) above	

Sl. No.	Particulars	As on relevant date.
D	a) Deletion in CWIP during the period	
	b) Amount of capital liabilities in D(a) above	
	c) Amount of IDC in D(a) above	
	d) Amount of FC in D(a) above	
	e) Amount of FERV in D(a) above	
	f) Amount of Hedging Cost in D(a) above	
	g) Amount of IEDC in D(a) above	
E	a) Closing CWIP as per books	
	b) Amount of capital liabilities in E(a) above	
	c) Amount of IDC in E(a) above	
	d) Amount of FC in E(a) above	
	e) Amount of FERV in E(a) above	
	f) Amount of Hedging Cost in E(a) above	
	g) Amount of IEDC in E(a) above	

Note:

1. Relevant date/s means date of COD of unit/s/station and financial year start date and end date

(Petitioner)

PART-II
FORM- 10

Financing of Additional Capitalisation

Name of the Petitioner
Name of the Generating Station
Date of Commercial Operation

(Amount in(Rs. Lakh))

	Actual					Admitted				
Financial Year (Starting from COD) ¹	Year 1	Year 2	Year3	Year4	Year 5 & So on	Year 1	Year 2	Year3	Year4	Year 5 & So on
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/Equipment										
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan ²										
Equity										
Internal Resources										
Others (Pl. specify)										
Total										

Note:

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

2 Loan details for meeting the additional capitalisation requirement should be given as per FORM-7 or 8 whichever is relevant.

(Petitioner)

PART-II
FORM- 11

Calculation of Depreciation

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

Sl. no.	Name of the Assets ¹	Gross Block as on 31.03.2014 or as on COD, whichever is later and subsequently for each year thereafter upto 31.3.19	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.19
	1	2	3	4= Col.2 X Col.3
1	Land*			
2	Building			
3	and so on			
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
	TOTAL			
	Weighted Average Rate of Depreciation (%)			

**Provide details of Freehold Land, Leasehold Land and Land under reservoir separately*

Note:

1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)

Statement of Depreciation

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

Sl. No.	Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Opening Capital Cost						
	Closing Capital Cost						
	Average Capital Cost						
	Freehold land*						
	Rate of depreciation						
	Depreciable value						
	Balance useful life at the beginning of the period						
	Remaining depreciable value						
	Depreciation (for the period)						
	Depreciation (annualised)						
	Cumulative depreciation at the end of the period						
	Less: Cumulative depreciation adjustment on account of un-discharged liabilities deducted as on 01.04.2009/Station COD, whichever is later						
	Less: Cumulative depreciation adjustment on account of de-capitalisation						
	Net Cumulative depreciation at the end of the period						

1. In case of details of FERV and AAD, give information for the applicable period.

(Petitioner)

PART-II
FORM- 13

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of the Petitioner

Name of the Generating Station

(Amount in Rs.Lakh)

Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Loan-1						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan-2						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan-3 and so on						
Gross loan - Opening						

Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Total Loan						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Interest on loan						
Weighted average Rate of Interest on Loans						

Note:

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

(Petitioner)

**PART-II
FORM- 13A**

Calculation of Interest on Normative Loan

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

Sl. No.	Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Gross Normative loan – Opening						
	Cumulative repayment of Normative loan upto previous year						
	Net Normative loan – Opening						
	Add: Increase due to addition during the year / period						
	Less: Decrease due to de-capitalisation during the year / period						
	Less: Decrease due to reversal during the year / period						
	Add: Increase due to discharges during the year / period						
	Net Normative loan - Closing						
	Average Normative loan						
	Weighted average rate of interest						
	Interest on Loan						

(Petitioner)

PART-II
Form -13B

Calculation of Interest on Working Capital

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

Sl. No.	Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5	6	7	8
1	O & M Expenses						
2	Maintenance Spares						
3	Receivables						
4	Total Working Capital						
5	Rate of Interest						
6	Interest on Working Capital						

(Petitioner)

PART-II
Form -13C

Other Income as on actual /anticipated COD

Name of the Petitioner _____
Name of the Generating Station _____

(Amount in Rs Lakh)

Sl. No.	Parameters	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Interest on Loans and advance						
2	Interest received on deposits						
3	Income from Investment						
4	Income from sale of scrap						
5	Rebate for timely payment						
6	Surcharge on late payment from beneficiaries						
7	Rent from residential building						
8	Misc. receipts (Please Specify Details)						
...	...						
...	... (add)						

(Petitioner)

Incidental Expenditure during Construction

Name of the Petitioner _____

Name of the Generating Station _____

(Amount in Rs Lakh)

Sl. No.	Parameters	Upto Schedule COD	Up to actual/anticipated COD
A	Expenses:		
1	Employees' Benefits Expenses		
2	Finance Costs		
3	Water Charges		
4	Communication Expenses		
5	Power Charges		
6	Other Office and Administrative Expenses		
7	Others (Please Specify Details)		
8	Other pre-Operating Expenses		
		
		
B	Total Expenses		
	Less: Income from sale of tenders		
	Less: Income from guest house		
	Less: Income recovered from Contractors		
	Less: Interest on Deposits		
		

(Petitioner)

PART-II
FORM- 14

Draw Down Schedule for Calculation of IDC & Financing Charges

Name of the Petitioner _____

Name of the Generating Station _____

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
1	Loans									
1.1	Foreign Loans									
1.1.1	Foreign Loan₁									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.2	Foreign Loan₂									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.3	Foreign Loan₃									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
1.1.4	--									
	--									
	--									
1.1	Total Foreign Loans									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
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	--	---	---		---	---		---	---	
	--	---	---		---	---		---	---	
	--	---	---		---	---		---	---	

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
1.2	Total Indian Loans									
	Draw down Amount	--	--		--	--		--	--	
	IDC	--	--		--	--		--	--	
	Financing charges	--	--		--	--		--	--	
1	Total of Loans drawn									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
2	Equity									
2.1	Foreign equity drawn									
2.2	Indian equity drawn	--	--		--	--		--	--	
	Total equity deployed									

Note:

1. Drawal of debt and equity shall be on pari passu basis quarter wise to meet the commissioning schedule. Drawal of higher equity in the beginning is permissible
2. Applicable interest rates including reset dates used for above computation may be furnished separately
3. In case of multi unit project details of capitalisation ratio used to be furnished.
4. Detailed calculation of IDC (Actual drawl and repayment dates and amount, rates of interest, etc.) should be furnished.

(Petitioner)

**PART-II
FORM- 14A**

Actual cash expenditure

Name of the Petitioner

Name of the Generating Station

(Amount in Rs Lakh)

	Quarter-I	Quarter-II	Quarter-III	Quarter-n (COD)
Payment to contractors/suppliers				
% of fund deployment				

Note: If there is variation between payment and fund deployment justification need to be furnished

(Petitioner)

**PART-II
FORM- 15A**

Design energy and peaking capability (month wise)- ROR with Pondage/Storage type new stations

Name of the Petitioner

Name of the Generating Station

Generating Company.....			
Name of Hydro-electric Generating Station :			
Installed Capacity: No of units X .MW=			
Month		Design Energy* (MUs)	Designed Peaking Capability (MW)*
April	I		
	II		
	III		
May	I		
	II		
	III		
June	I		
	II		
	III		
July	I		
	II		
	III		
August	I		
	II		
	III		
September	I		
	II		
	III		

October	I		
	II		
	III		
November	I		
	II		
	III		
December	I		
	II		
	III		
January	I		
	II		
	III		
February	I		
	II		
	III		
March	I		
	II		
	III		
Total			
*As per DPR/TEC of CEA dated.....			
Note :			
Specify the number of peaking hours for which station has been designed.			

(Petitioner)

PART-II
FORM- 15B

Design energy and MW Continuous (month wise)- ROR type stations

Name of the Petitioner

Name of the Generating Station

Generating Company.....			
Name of Hydro-electric Generating Station :			
Installed Capacity: No of units X .MW=			
Month		Design Energy* (MUs)	MW continuous*
April	I		
	II		
	III		
May	I		
	II		
	III		
June	I		
	II		
	III		
July	I		
	II		
	III		
August	I		
	II		
	III		
September	I		
	II		
	III		

October	I			
	II			
	III			
November	I			
	II			
	III			
December	I			
	II			
	III			
January	I			
	II			
	III			
February	I			
	II			
	III			
March	I			
	II			
	III			
Total				
*As per DPR/TEC of CEA dated.....				

(Petitioner)

Liability Flow Statement

Name of the Petitioner

Name of the Generating Station

Party	Asset / Work	Year of actual capitalisation	Original Liability	Liability as on 31.03.2014	Discharges (Year wise)	Reversal (Year wise)

(Petitioner)

**TARIFF FILING FORMS (TRANSMISSION &
COMMUNICATION SYSTEM)
FOR DETERMINATION OF TARIFF
PART-III
Annexure-I**

INDEX

PART-III

**Checklist of Forms and other information/ documents for tariff filing for
Transmission System & Communication System**

Form No.	Title of Tariff Filing Forms (Transmission& Communication System)	Tick
FORM- 1	Summary Sheet	
FORM-2	Details of Transmission Lines and Substations, Communication System	
FORM-3	Normative parameters considered for tariff computations	
FORM- 4	Abstract of admitted parameters for the existing transmission assets/elements under project.	
FORM- 4A	Statement of Capital cost	
FORM- 4B	Statement of Capital Works in Progress	
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	
FORM-5	Element wise Break-up of Project/ Asset/Element Cost for Transmission System or Communication System	
FORM-5A	Break-up of Construction/Supply/Service packages	
FORM-5B	Details of element wise cost of the Project	
FORM- 6	Financial Package upto COD	
FORM- 7	Statement of Additional Capitalisation after COD	
FORM- 7A	Financing of Additional Capitalisation	
FORM- 7B	Statement of Additional Capitalisation during fag end* of the Project	
FORM- 8	Calculation of Return on Equity	
FORM-8A	Details of Foreign Equity	
FORM-8B	Details of additional RoE	
FORM-9	Details of Allocation of corporate loans to various transmission elements	
FORM-9A	Details of Project Specific Loans	
FORM-9B	Details of Foreign loans	
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual	

Form No.	Title of Tariff Filing Forms (Transmission& Communication System)	Tick
	Loans	
FORM-9D	Loans in Foreign Currency	
FORM-9E	Calculation of Interest on Normative Loan	
FORM- 10	Calculation of Depreciation Rate	
FORM- 10A	Statement of Depreciation	
FORM- 10B	Statement of De-capitalization	
FORM- 11	Calculation of Interest on Working Capital	
FORM- 12	Details of time over run	
FORM- 12A	Incidental Expenditure during Construction	
FORM- 12B	Draw Down Schedule for Calculation of IDC & Financing Charges	
FORM- 13	Breakup of Initial spares	
FORM- 14	Other Income as on COD	
FORM- 15	Actual cash expenditure	
Other Information/ Documents		
Sl. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new Transmission System & Communication 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/PPA with the beneficiaries, if any	
7	Detailed note giving reasons of cost and time over run, if applicable.	

Form No.	Title of Tariff Filing Forms (Transmission& Communication System)	Tick
	List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2014-15 and 2015-16 at the time of mid-term true-up in 2016-17 and for balance period of tariff period 2014-19 at the time of final true-up in 2019-20. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
9	Any other relevant information, (Please specify)	

Note1: Electronic copy of the petition (in word format) and detailed calculation as per these formats (in excel format) and any other information submitted shall also be furnished in the form of CD/Floppy disc.

PART-III
FORM- 1

Summary Sheet

Name of the Petitioner:

Name of the Region:

Name of the Project:

**Name of the Transmission Element or
Communication System**

(Amount in Rs. Lakh)

S.N o.	Particulars	Form No.	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2		3	4	5	6	7	8
1.1	Depreciation							
1.2	Interest on Loan							
1.3	Return on Equity ¹							
1.4	Interest on Working Capital							
1.5	O & M Expenses							
	Total							

Note

1: Details of calculations, considering equity as per regulation, to be furnished (As per Form 8).

(Petitioner)

DETAILS OF TRANSMISSION LINES & SUBSTATIONS & COMMUNICATION SYSTEM

Name of the Petitioner: _____
 Name of the Region: _____
 Name of the Project: _____
 Name of the Transmission Element or
 Communication System _____

Transmission Lines:

S. No.	Name of line	Type of line AC/HV DC	S/C or D/C	No. of Sub- Conductors	Voltage level kV	Line length Ckt.- km.	Line length km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, petition No.
1										
2										
3										
4										
-										
-										
-										

Substations:

S.NO.	Name of Sub-station	Type of Substation Conventional(Green field/Brownfield)/ GIS/HVDC terminal/HVDC Back to Back	Voltage level kV	No. of transformers / Reactors/SVC etc. (with capacity)	No. of Bays				Date of Commercial operation	Covered in the present petition	
					765 kV	400 kV	220 kV	132 kV & Below		Yes/No	If No,petition No.
1											
2											
3											
4											
-											
-											

Communication System:

S. No.	Name of Communication System	Type of Communication System - Communication System under ULDC/ SCADA/ WAMS/Fibre Optic Communication System/RTU/PABX etc	Technical Particulars	Number/ length	Date of Commercial operation	Covered in the present petition	
						Yes/No	If No, petition No.
1							
2							
3							
4							
-							

(Petitioner)

Normative parameters considered for tariff computations

Name of the Petitioner: _____

Name of the Region: _____

Name of the Project: _____

Name of the Transmission Element or
communication system: _____

Year Ending March

Particulars	Unit	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Rate of Return on Equity	%						
Tax Rate	%						
Effective tax rate ¹	%						
Target Availability	%						
Normative O&M per km	Rs. Lakh						
Normative O&M per bay	Rs. Lakh						
Spares for WC as % of O&M	%						
Receivables in Months for WC	Months						
Bank Rate as on _____ ²	%						

1. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 25 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.
2. Mention relevant date

(Petitioner)

PART-III
Form 4

Abstract of admitted parameters for the existing transmission assets/elements under project.

Name of the Petitioner: _____
Name of the Region: _____
Name of the Project: _____
Name of the Transmission Element or _____
Communication system: _____

(Amount in Rs Lakh)

	Asset- 1	Asset- 2	Asset- 3 and so on	Total Gross Block as on 31.03.2014
Name of the Assets				
DOCO				
Petition Number				
Tariff order date				
Particulars	Capital Expenditure admitted as on 31.03.2014	Capital Expenditure admitted as on 31.03.2014	Capital Expenditure admitted as on 31.03.2014	
Apportioned approved Cost/Revised cost estimates, if any (with reference and date of approval)				
Freehold Land				
Leasehold Land				
Building & Other Civil Works				
Transmission Line				
Sub-Station Equipments				
PLCC				
Total				
Notional Loan				
Notional Equity				
Total				
Debt-Equity Ratio				
Debt				
Equity				
Total				
Cumulative amount of Depreciation				

Cumulative Repayment of Loan				
Initial Spares*				

1 * Initial spares claimed for existing whose cut off date falls in current tariff period.

Details of remaining assets of the project yet to be commissioned needs to be included in Form -5B

(Petitioner)

**PART-III
FORM- 4A****Statement of Capital cost**
(To be given for relevant dates and year wise)**Name of the Petitioner:****Name of the Region:****Name of the Project:****Name of the Transmission Element or****Communication system:**

(Amount in Rs Lakh)

	As on relevant date. ¹
A a) Opening Gross Block Amount as per books	
b) Amount of capital liabilities in A(a) above	
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	(i) ... (ii) ... (iii) ... (iv) ...
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	
B a) Addition in Gross Block Amount during the period	
b) Amount of capital liabilities in B(a) above	
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	(i) ... (ii) ... (iii) ... (iv) ...
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	
C a) Closing Gross Block Amount as per books	
b) Amount of capital liabilities in C(a) above	
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	(i) ... (ii) ... (iii) ... (iv) ...
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	

Note:

1. Relevant date/s means date of COD of transmission element/s or Communication system and financial year start date and end date

(Petitioner)

PART-III
FORM- 4B

Statement of Capital Works in Progress
(To be given for relevant dates and year wise)

Name of the Petitioner:

Name of the Region:

Name of the Project:

Name of the Transmission Element or

Communication system:

(Amount in Rs Lakh)

	As on relevant date. ¹
A a) Opening CWIP Amount as per books	
b) Amount of capital liabilities in a above	
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in (a) above	(i) ... (ii) ... (iii) ... (iv) ...
B a) Addition/ Adjustment in CWIP Amount during the period	
b) Amount of capital liabilities in a above	
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in (a) above	(i) ... (ii) ... (iii) ... (iv) ...
C a) Capitalization/Transfer to Fixed asset of CWIP Amount during the period	
b) Amount of capital liabilities in a above	
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in (a) above	(i) ... (ii) ... (iii) ... (iv) ...
D a) Closing CWIP Amount as per books	
b) Amount of capital liabilities in a above	
c) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost in a above	(i) ... (ii) ... (iii) ...

Note:

1. Relevant date/s means date of COD of transmission element/s and financial year start date and end date

(Petitioner)

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element

Name of the Petitioner: _____
Name of the Region: _____
Name of the Project: _____
Name of the Transmission Element or Communication system: _____

New Projects

Capital Cost Estimates

Board of Director/ Agency approving the Capital cost estimates:		
Date of approval of the Capital cost estimates:		
	Present Day Cost	Completed Cost
Price level of approved estimates	As of End of _____ Qtr. Of the year _____	As on Scheduled COD of the transmission system/transmission element/ Communication System
Foreign Exchange rate considered for the Capital cost estimates		
Capital Cost excluding IDC, IEDC& FC		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs Lakh)		
Capital cost excluding IDC, FC, FERV & Hedging Cost (Rs. Cr)		
IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs Lakh)		
Total IDC, FC, FERV & Hedging Cost (Rs Lakh)		
Rate of taxes & duties considered		
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost		

Foreign Component, if any (In Million US \$ or the relevant Currency)	
Domestic Component (Rs Lakh)	
Capital cost Including IDC, IEDC& FC (Rs Lakh)	
Schedule of Commissioning	
COD of transmission system 1 / transmission element 1/Communication System 1	
COD of transmission system 1/ transmission element 2/ Communication System 2	

COD of last transmission system / transmission element / Communication System	

Note:

1. Copy of approval letter by the Board duly certified by the Company secretary should be enclosed
2. Details of Capital Cost are to be furnished as per FORM-5 or 5A as applicable
3. Details of IDC & Financing Charges are to be furnished as per FORM-12(B).

(Petitioner)

Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System

Name of the Petitioner: _____
Name of the Region: _____
Name of the Project: _____
Name of the Transmission Element or Communication system: _____

(Amount in Rs. Lakh)

[illegible]

Sl. No. (1)	Particulars (2)	Cost in Rs. Lakh						Liabilities/Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)	Admitted Cost (8)
		As per Original Estimates (3)			Actual Capital Expenditure as on COD (4)						
		Quantity	Rate	Estimated Amount	Quantity	Rate	Actual Amount				
2.3	Earth Wire										
2.4	Insulators										
2.5	Hardware Fittings										
2.6	Conductor & Earth wire accessories										
2.7	Spares										
2.8	Erection, Stringing & Civil works including foundation										
	Total Transmission Lines material										
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										

Sl. No. (1)	Particulars (2)	Cost in Rs. Lakh						Liabilities/ Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)	Admitted Cost (8)
		As per Original Estimates (3)			Actual Capital Expenditure as on COD (4)						
		Quantity	Rate	Estimated Amount	Quantity	Rate	Actual Amount				
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										

Sl. No. (1)	Particulars (2)	Cost in Rs. Lakh						Liabilities/Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)	Admitted Cost (8)
		As per Original Estimates (3)			Actual Capital Expenditure as on COD (4)						
		Quantity	Rate	Estimated Amount	Quantity	Rate	Actual Amount				
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)										
C	Communication System										
9.1	Preliminary Works										
9.2	Communication System equipments										
9.3	Taxes and Duties										
	Total										

Sl. No. (1)	Particulars (2)	Cost in Rs. Lakh						Liabilities/Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)	Admitted Cost (8)
		As per Original Estimates (3)			Actual Capital Expenditure as on COD (4)						
		Quantity	Rate	Estimated Amount	Quantity	Rate	Actual Amount				
	(Communication System)										
10.0	Construction and pre-commissioning expenses										
10.1	Site supervision & site administration .etc.										
10.2	Tools and Plants										
10.3	construction Insurance										
	Total Construction and pre commissioning expenses										
11.0	Overheads										
11.1	Establishment										
11.2	Audit & Accounts										
11.3	Contingency										
	Total Overheads										
12.0	Cost of Plant & Machinery										
13.0	Capital Cost including Plant										

Sl. No. (1)	Particulars (2)	Cost in Rs. Lakh						Liabilities/ Provisions (5)	Variation (6=3-4-5)	Reasons for Variation (7)	Admitted Cost (8)
		As per Original Estimates (3)			Actual Capital Expenditure as on COD (4)						
		Quantity	Rate	Estimated Amount	Quantity	Rate	Actual Amount				
	& Machinery										
13.1	Interest During Construction (IDC)										
13.2	Financing Charges (FC)										
13.3	Foreign Exchange Rate Variation (FERV)										
13.4	Hedging Cost										
	Total of IDC, FC, FERV & Hedging Cost										
14.0	Capital cost including IDC, FC, FERV & Hedging Cost										

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over- run was beyond the control of the transmission licensee.
2. Separate details of free hold/lease hold land should be submitted.

(Petitioner)

**PART-III
FORM- 5A**

Break-up of Construction/Supply/Service Packages

Name of the Petitioner: _____

Name of the Region: _____

Name of the Project: _____

**Name of the Transmission Element or
Communication system** _____

Sr. 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/ Departmentally/ Deposit Work, etc.	No. of bids received	Date of Award	Date of Start of work	Date of Completion of Work	Value of Award ² in (Rs. Lakh).	Firm or With Escalation in prices	Actual expenditure till the completion or up to COD whichever is earlier (Rs. Lakh)	Taxes & Duties and IEDC (Rs. Lakh)	IDC, FC, FERV & Hedging cost (Rs. Lakh)	Sub-Total (Rs. Lakh)

Note:

1 The scope of work in any package should be indicated in conformity of cost break-up in 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 separately alongwith the currency, the exchange rate and the date e.g. Rs. 800 Lakh. + US\$ 5m=Rs. 3900 Lakh. at US\$=Rs 62 as on say 1.4.14.

(Petitioner)

PART-III
FORM- 5B

Details of element wise cost of the project

Name of the Petitioner: _____
 Name of the Region: _____
 Name of the Project: _____

Transmission Lines:

S. No.	Name of line	Apportioned approved cost (Rs.Lakh)	Revised cost estimates, if applicable (Rs.Lakh)	Completed Cost (Rs.Lakh)	Covered in the present petition	
					Yes/No	If No, petition No.
1						
2						
3						
4						
-						
-						
-						

Substations:

S. NO.	Name of Sub-station	Apportioned approved cost (Rs.Lakh)	Revised cost estimates, if applicable (Rs.Lakh)	Completed Cost (Rs.Lakh)	Covered in the present petition	
					Yes/No	If No, petition No.
1						
2						
3						
4						
-						
-						

Communication System:

S. NO.	Name of Communication System	Apportioned approved cost (Rs.Lakh)	Revised cost estimates, if applicable (Rs.Lakh)	Completed Cost (Rs.Lakh)	Covered in the present petition	
					Yes/No	If No, petition No.
1						
2						
-						
-						

(Petitioner)

PART-III
FORM- 6
Financial Package upto COD

Name of the Petitioner: _____
 Name of the Transmission Element/
 Communication system _____
 Project/Element Cost as on COD*: _____
 Date of Commercial Operation of the Transmission element#: _____
 Communication system _____

	Financial Package as Approved		Financial Package as on COD		As Admitted on COD	
	Currency and Amount\$		Currency and Amount\$		Currency and Amount\$	
1	2	3	4	5	6	7
Loan-I	US \$	5m				
Loan-II						
Loan-III						
and so on						
Total Loans						
Equity-						
Foreign						
Domestic						
Total Equity						
Debt : Equity Ratio						
Total Cost						
	Debt	Equity	Total			
Add cap for Year-1						
Add cap for Year-2						
Add cap for year-1	Actual	Normative				
Debt						
Equity						
Total						
Add cap for year-2	Actual	Normative				
Debt						
Equity						
Total						
Total Capital Cost with add cap.						

Note:

* Say Rs. 800 Lakh. + US\$ 5m=Rs. 3900 Lakh including US\$ 5 m at an exchange rate of US\$=Rs62

#For example: US \$ 5m, etc.

\$ In case of foreign loans exchange rate considered on date of commercial operation.

(Petitioner)

PART-III
FORM- 7

Statement of Additional Capitalisation after COD

Name of the Petitioner:

Name of the Region:

Name of the Project:

Name of the Transmission Element or

Communication system

COD

Sr. No.	Year	Work/Equipment proposed to be added after COD upto Cut off Date/beyond Cut- off Date	Amount capitalized /Proposed to be capitalized (Rs Lakh)	Justification	Regulations under which covered	Admitted Cost ¹ (Rs Lakh)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1						
2						
3						
4						
5						

1. In case the project has been completed and any tariff notification(s) has already been issued in the past, fill column 7 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:

- Fill the form in chronological order year wise along with detailed justification clearly bringing out the necessity and the benefits accruing to the beneficiaries.
- In case initial spares are purchased along with any equipment, then the cost of such spares should be indicated separately.
- In case of de-capitalisation of assets separate details to be furnished. Further, the original book value and year of capitalisation of such asset to be furnished. Where de-caps are on estimated basis the same to be shown separately.

(Petitioner)

Financing of Additional Capitalisation

Name of the Petitioner: _____

Name of the Region: _____

Name of the Project: _____

Name of the Transmission Element or
Communication system: _____

(Amount in Rs. Lakh)

	Actual/Projected					Admitted				
Financial Year (Starting from COD)	Year 1	Year 2	Year 3	Year 4	Year 5 & So on	Year 1	Year 2	Year 3	Year 4	Year 5 & So on
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/Equipment										
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan										
Equity										
Internal Resources										
Others										
Total										

Note:

1. Year 1 refers to Financial Year of COD in case of new elements. For existing elements it is from 2014-15 and Year 2, Year 3 etc. are the subsequent financial years respectively.

2. Loan details for meeting the additional capitalisation requirement should be given as per FORM-9 or 9(A) whichever is relevant.

(Petitioner)

PART-III
FORM- 7B

Statement of Additional Capitalisation during fag end* of the Project

Name of the Petitioner: _____
 Name of the Region: _____
 Name of the Project: _____
 Name of the Transmission Element or
 Communication system _____
 COD _____

Sr. No.	Year	Work/Equipment added five years before the useful life	Amount capitalised /Proposed to be capitalized (Rs Lakh)	Justification for capitalisation proposed	Impact on life extension
1	2	3	4	5	6
1					
2					
3					
4					
5					

Note:

Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes

*Five years before the completion of useful life.

(Petitioner)

Part-III

Form 8

Calculation of Return on Equity

Name of the Petitioner: _____

Name of the Region: _____

Name of the Project: _____

Name of the Transmission Element or _____

Communication System

(Amount in
Rs. Lakh)

S.No.	Particulars	Existing 2013-14	2014- 15	2015-16	2016- 17	2017-18	2018-19
1	2	3	4	5	6	7	8
1.1	Equity as on COD/ Admitted equity						
1.2	Notional Equity for Add Cap						
1.3	Total Equity						
1.4	Return on Equity*						
	Total						

Note

1: * - To be calculated on average equity during the year.

(Petitioner)

Part-III
Form 8A

Details of Foreign Equity

(Details only in respect of Equity infusion if any applicable to the Asset/Element under petition)

Name of the Petitioner: _____

Name of Region: _____

Name of the Project: _____

Name of the Transmission Element or _____

Communication system: _____

Exchange Rate on date/s of Infusion: _____

Exchange Rate on date of infusion													
Sl. No.	Financial Year		Year 1				Year 2			Year 3 and so on			
	1	2	3	4	5	6	7	8	9	10	11	12	13
		Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)
	Currency1 ¹												
A.1	At the date of infusion ²												
2													
	Currency2 ¹												
A.1	At the date of infusion ²												
2													
3													
	Currency3 ¹												
A.1	At the date of infusion ²												
2													
	Currency4 ¹ and so on												
A.1	At the date of												

Sl. No.	Financial Year	Year 1				Year 2				Year 3 and so on			
	1	2	3	4	5	6	7	8	9	10	11	12	13
		Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)
	infusion ²												
2													
3													

Note:

1. Name of the currency to be mentioned e.g. US\$, DM, etc.
2. In case of equity infusion more than once during the year, Exchange rate at the date of each infusion to be given

(Petitioner)

Details of additional RoE

Name of the Petitioner:

Name of the Region:

Name of the Project:

Name of the Transmission Element or
Communication system

Project/ Element	Completion Time as per Investment approval			Actual Completion time			Qualifying time schedule(as per regulation) (in months)
	Start Date	Scheduled COD (Date)	Months	Start Date	Actual COD (Date)	Months	
1							
2							
3							
4							
....							
.....							

(Petitioner)

PART-III
FORM- 9

Details of Allocation of corporate loans to various transmission elements

Name of the Petitioner: _____
Name of the Region: _____
Name of the Project: _____
Name of the Transmission Element or Communication system _____

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Remarks
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2014/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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						
	Distribution of loan packages to various transmission elements/Communication system					
Name of the Projects						Total
Transmission element						

1/Communication system 1						
Transmission element 2						
/Communication system 2						
Transmission element						
3/Communication system 3						
and so on						

Note:

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 31.03.2014 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various transmission elements/Communication system, details in the Form is to be given separately for all the transmission elements/ Communication system in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, LIBOR 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/repayment may also be given separately.
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawal & repayment of principal and interest along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate as on 31.03.2004 or as on COD whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately.
19. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

(Petitioner)

Details of Project Specific Loans

Name of the Petitioner: _____

Name of the Region: _____

Name of the Project: _____

Name of the Transmission Element or

Communication system: _____

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2014/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	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						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

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 31.03.2014 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various transmission system/transmission elements/Communication system, details in the Form is to be given separately for all the transmission system/transmission element/ Communication system in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, LIBOR 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/repayment may also be given separately.
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawal & repayment of principal and interest along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate as on 31.03.2004 or as on COD whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately.
19. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

(Petitioner)

PART-III
FORM- 9B

Details of Foreign loans

(Details only in respect of loans applicable to the Asset/Element under Petition)

Name of the Petitioner: _____
Name of the Region: _____
Name of the Project: _____
Name of the Transmission Element or _____
Communication system: _____
Exchange Rate at COD/31.03.2004 whichever is later _____

Sl. N o.	Financial Year (Starting from COD)	Year 1				Year 2 and so on			
		1	2	3	4 ^{\$}	5	6	7	8 ^{\$}
		Particulars	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate
	Currency¹								
A.	At the date of Draw ²								
1	Scheduled repayment date of principal								
2	Scheduled payment date of interest								
3	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency²								
A.	At the date								

Sl. No.	Financial Year (Starting from COD)	Year 1				Year 2 and so on			
		2	3	4 ^{\$}	5	6	7	8 ^{\$}	9
		Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)
1	of Drawl ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency ³¹ & so on								
A.	At the date								
1	of Drawl ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial								

Sl. N o.	Financial Year (Starting from COD)	Year 1				Year 2 and so on				
		1	2	3	4 ^{\$}	5	6	7	8 ^{\$}	9
		Particulars	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)
	year									
B	In case of Hedging ³									
1	At the date of hedging									
2	Period of hedging									
3	Cost of hedging									

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

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

3. Furnish details of hedging, in case of more than one hedging during the year or part hedging, details of each hedging are to be given.

NOTE

In case of refinancing similar details with supporting documents to be furnished

^{\$} - Exchange rate at COD/31.03.2004 whichever is later.

PART-III
FORM- 9C

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of the Petitioner: _____
Name of the Region: _____
Name of the Project: _____
Name of the Transmission Element or Communication system _____

(Amount in Rs. Lakh)

Particulars	Existing 2013-14	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19
Loan-1						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
<i>Loan repayment effective from (date to be indicated)</i>						
Loan-2						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
<i>Loan repayment effective from (date to be indicated)</i>						
Loan-3 and so on						
Gross loan - Opening						

Particulars	Existing 2013-14	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
<i>Loan repayment effective from (date to be indicated)</i>						
Total Loan						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Interest on loan						
Weighted average Rate of Interest on Loans						

Note:

1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.
2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.
3. Details of Financing Charges.

(Petitioner)

PART-III
FORM- 9D

Loans in Foreign Currency

Name of the Petitioner: _____
Name of the Region: _____
Name of the Project: _____
Name of the Transmission Element or Communication system _____

Particulars	Existing 2013-14	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19
Foreign Loan-1 (USD in Lakh) Exchange rate						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
<i>Loan repayment effective from (date to be indicated)</i>						
Foreign Loan-2 (USD in Lakh) Exchange rate						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
<i>Loan repayment effective from (date to be indicated)</i>						
Foreign Loan-3 (USD in Lakh) Exchange rate						
....						
....						

(Petitioner)

PART-III
FORM- 9E

Calculation of Interest on Normative Loan

Name of the Petitioner: _____
Name of the Region: _____
Name of the Project: _____
Name of the Transmission Element or _____
Communication system _____

(Amount in Rs. Lakh)

Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5	6	7
Gross Normative loan - Opening						
Cumulative repayment of Normative Loan upto previous year						
Net Normative loan - Opening						
Increase/Decrease due to ACE/de-capitalization during the Year						
Repayments of Normative Loan during the year						
Net Normative loan - Closing						
Average Normative Loan						
Weighted average Rate of Interest of actual Loans						
Interest on Normative loan						

Note:

1. At the time of true-up net savings as a result of refinancing of loans may be provided along with adjustments of sharing.

(Petitioner)

PART-III
FORM- 10

Calculation of Depreciation Rate

Name of the Petitioner: _____
 Name of the Region: _____
 Name of the Project: _____
 Name of the Transmission Element or
 Communication system: _____

(Amount in Rs. Lakh)

Sl. No.	Name of the Assets ¹	Gross Block as on 31.03.2014 or as on COD, whichever is later and subsequently for each year thereafter upto 31.3.19	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.19
	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				
	TOTAL			
	Weighted Average Rate of Depreciation (%)			

Note:

1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

(Petitioner)

Statement of Depreciation

Name of the Petitioner: _____

Name of the Region: _____

Name of the Project: _____

Name of the Transmission Element or
Communication system: _____

(Amount in Rs. Lakh)

Sl. No.	Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Opening Capital Cost						
2	Closing Capital Cost						
3	Average Capital Cost						
4	Freehold land						
5	Rate of depreciation						
6	Depreciable value						
7	Balance useful life at the beginning of the period						
8	Remaining depreciable value						
9	Depreciation (for the period)						
10	Depreciation (annualised)						
11	Cumulative depreciation at the end of the period						
12	Less: Cumulative depreciation adjustment on account of de-capitalisation						
13	Net Cumulative depreciation at the end of the period						

1. In case of details of FERV and AAD, give information for the applicable period.

(Petitioner)

Statement of Decapitalisation

Name of the Petitioner: _____

Name of the Region: _____

Name of the Project: _____

Name of the Transmission Element or
Communication system _____

COD _____

Sr. No.	Year of De-capitalisation	Work/Equipment proposed to be De-capitalised	Year of capitalisation of asset/equipment being decapitalised	Original Book Value of the asset being decapitalised	Debt Equity ratio at the time of capitalisation	Cumulative Depreciation corresponding to decapitalisation	Cumulative Repayment of Loan corresponding to decapitalisation	Justification
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1								
2								
3								
4								
5								

(Petitioner)

**PART-III
FORM- 11****Calculation of Interest on Working Capital**

Name of the Petitioner: _____
Name of the Region: _____
Name of the Project: _____
Name of the Transmission Element or Communication system _____

(Amount in Rs. Lakh)

Sl. No.	Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5	6	7	8
1	O & M Expenses						
2	Maintenance Spares						
3	Receivables						
4	Total Working Capital						
5	Rate of Interest						
6	Interest on Working Capital						

(Petitioner)

PART-III
FORM- 12

Details of time over run

Name of the Petitioner: _____

Name of the Region: _____

Name of the Project/element: _____

S.No	Description of Activity/Works/ Service	Original Schedule (As per Planning)		Actual Schedule (As per Actual)		Time Over-Run	Agency responsible and whether such time over run was beyond the control of the Transmission Licensee	Reasons for delay	Other Activity affected (Mention Sr No of activity affected)
		Start Date	Completion Date	Start Date	Completion Date	Months			
1									
2									
3									
4									
5									
6									
7									
8									
9									
....								

1. Delay on account of each reason in case of time overrun should be quantified and substantiated with necessary documents and supporting workings.

(Petitioner)

PART-III
FORM- 12A

Incidental Expenditure during Construction

Name of the Petitioner: _____

Name of the Region: _____

Name of the Project: _____

Name of the Transmission Element or
Communication system _____

Date of Commercial Operation _____

(Amount in Rs. Lakh)

Sl. No.	Parameters	Year -1	Year-2	Year 3	Year-4	Year-5
A	Expenses:					
1	Employees' Remuneration & Benefits					
2	Finance Costs					
3	Water Charges					
4	Communication Expenses					
5	Power Charges					
6	Other Office and Administrative Expenses					
7	Others (Please Specify Details)					
8	Other pre-Operating Expenses					
					
B	Total Expenses					
	Less: Income from sale of tenders					
	Less: Income from guest house					
	Less: Income recovered from Contractors					
	Less: Interest on Deposits					
					

Note: IEDC should be duly reconciled with the corresponding figures of Auditor's Certificate.

(Petitioner)

PART-III
FORM- 12B

Draw Down Schedule for Calculation of IDC & Financing Charges

Name of the Petitioner: _____

Name of the Region: _____

Name of the Project: _____

Name of the Transmission Element or Communication system _____

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)
1	Loans									
1.1	Foreign Loans									
1.1.1	Foreign Loan₁									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.2	Foreign Loan₂									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)
1.1.3	Foreign Loan₃									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.4	--									
	--									
	--									
1.1	Total Foreign Loans									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.2	Indian Loans									
1.2.1	Indian Loan¹									
	Draw down Amount									
	IDC									
	Financing charges									

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)
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									
	Foreign Exchange Rate Variation									
	Hedging Cost									
2	Equity									
2.1	Foreign									

Sl. No.	Draw Down	Quarter 1			Quarter 2			Quarter n (COD)		
	Particulars	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs. Lakh)
	equity drawn									
2.2	Indian equity drawn									
	Total equity deployed									

Note:

1. Drawl of debt and equity shall be on pari-passu basis quarter wise to meet the commissioning schedule. Drawl of higher equity in the beginning is permissible
2. Applicable interest rates including reset dates used for above computation may be furnished separately
3. In case of multi element project details of capitalization ratio used to be furnished.

(Petitioner)

PART-III
FORM- 13

Breakup of Initial Spares

Name of the Petitioner:

Name of the Region:

Name of the Project:

**Name of the Transmission Element or
Communication system**

(Amount in Rs. Lakh)

Particulars	Plant & Machinery Cost (excluding IDC and IEDC) Upto DOCO	IDC	IEDC	Year wise additional Capital expenditure up to cut off date			Total Cost	Initial spares claimed	
				Year -1	Year-2	Year-3		Amount	%
Transmission Line									
Transmission Substation (Green Field/Brown Field)									
PLCC									
Series Compensation devices									
HVDC Station									
Gas Insulated Substation									
Communication System									

Note:

1. Details to be furnished as per Regulation 13.
2. Corresponding figures of initial spares included in each transmission system may be provided separately.

Petitioner)

**PART-III
FORM- 14****Other Income as on COD****Name of the Petitioner:****Name of the Region:****Name of the Project:****Name of the Transmission Element or****Communication system:**

(Amount in Rs. Lakh)

Sl. No.	Parameters	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Interest on Loans and advances						
2	Income from sale of scrap						
3	Misc. receipts (Please Specify Details)						
...	...						
...	... (add)						

(Petitioner)

PART-III
FORM- 15**Actual cash expenditure****Name of the Petitioner:****Name of the Region:****Name of the Project:****Name of the Transmission Element or
Communication system**

(Amount in Rs. Lakh)

	Quarter-I	Quarter-II	Quarter-III	Quarter-n (COD)
Payment to contractors/suppliers				
% of fund deployment				

Note: If there is variation between payment and fund deployment justification need to be furnished

(Petitioner)



भारत का राजपत्र The Gazette of India

असाधारण
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भाग III-खण्ड 4
PART III-Section 4
प्राधिकार से प्रकाशित
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No. 323

NEW DELHI, FRIDAY, AUGUST 24, 2018

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

No. L-1/220/2017-CERC

Dated The 23rd July, 2018

PREAMBLE

The Central Electricity Regulatory Commission has been entrusted with the functions under Section 79(1)(c) and Section 79(1)(d) of the Electricity Act, 2003 to regulate inter-State transmission of electricity and to determine the tariff of inter-State transmission system. Under Section 38(2)(b) of the Act, the Central Transmission Utility (CTU) has been entrusted with the functions of planning and coordination relating to inter-State transmission system with State Transmission Utilities, Central Government, State Governments, generating companies, Regional Power Committees, Central Electricity Authority (Authority), licensees etc. Under Section 38(2)(c) of the Act, CTU has been vested with the functions to ensure development of an efficient, co-ordinated and economical system of inter-State transmission lines for smooth flow of electricity from the generating stations to load centres. Under Section 38(2)(d) of the Act, CTU is required to provide non-discriminatory open access to its transmission system for use by any licensee or generating companies or any consumer. The investments made in inter-State transmission systems are ultimately recovered through the tariff and as per sharing mechanism determined by the Central Commission. Therefore, there is a need to have a transparent, co-ordinated consultative process for planning for the development of inter-State transmission system and associated intra-State transmission systems in an optimal manner. The primary aim of these regulations is to create a facilitative regulatory environment to enable CTU to plan an efficient, reliable and economical inter-State Transmission System and associated intra-State Systems through a transparent process of extensive, informed and inclusive consultation with stakeholders and get it developed in terms of the Electricity Act and Policies formulated under the Act.

NOTIFICATION

In exercise of powers conferred under clause (c) and (d) of sub-section (1) of Section 79 of the Electricity Act, 2003 and all other powers enabling it in this behalf, and after previous publication, the Central Electricity Regulatory Commission hereby makes the following regulations, namely:

1 Short title and commencement. - (1) These Regulations may be called the Central Electricity Regulatory Commission (Planning, Coordination and Development of Economic and Efficient Inter-State Transmission System by Central Transmission Utility and other related matters) Regulations, 2018.

(2) These regulations shall come into force from date of its publication in official gazette.

2 Objectives of the Regulations. - The objectives of this Regulation are to:

(1) lay down the broad principles, procedures and processes to be followed for planning and development of an efficient, co-ordinated, reliable and economical system of inter-State transmission system (ISTS) for smooth flow of electricity from generating stations to the load centres;

(2) ensure wider participation of stakeholders in the planning process and specify the procedures for stakeholders consultation and participation;

(3) specify procedures to bring about transparency in the planning process; and

(4) demarcate the roles and responsibilities of various organisations in line with the Act for meeting above objectives;

3 Scope and extent of applications of Regulations. - (1) These regulations shall be applicable to Central Transmission Utility (CTU), State Transmission Utilities (STUs), generating companies including companies having captive generating plants connected

to or intending to connect with ISTS, transmission licensees, distribution licensees, Regional Power Committees (RPCs), National Load Despatch Centre (NLDC), Regional Load Despatch Centres (RLDCs) and State Load Despatch Centres (SLDCs) and any other recognized entity under the Act involved in planning and development of inter-state transmission system.

(2) These regulations shall be in addition to the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for grant of Transmission License and other related matters Regulations), 2009; Central Electricity Regulatory Commission (Grant of Regulatory Approval for execution of Inter-State Transmission Scheme to Central Transmission Utility Regulations), 2010; and the Tariff Regulations issued by the Central Commission from time to time under section 61 of the Act.

4. Definitions and Interpretations. - (1) In these regulations, unless the context otherwise requires, 'Act' means the Electricity Act, 2003 (36 of 2003).

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

5. Roles and Responsibilities of various Organizations. - The roles and responsibilities of various organizations for the purpose of planning as under:

(1) The Central Transmission Utility (CTU) shall plan the inter-state transmission systems and while doing so, shall be responsible for preparation of base case and to undertake system studies for development of the transmission system. It shall also ensure proper coordination with various agencies such as CEA, transmission licensees, distribution licensees, Generating Companies, STUs, RLDCs and SLDCs involved in the planning process.

(2) The National Load Dispatch Centre and Regional Load Dispatch Centre(s) shall provide periodic operational statistics and feedback to Central Transmission Utility along with supporting analysis and details which have a bearing on the planning process of inter-state transmission system.

- (3) The generating companies who are connected or intend to connect to inter-state transmission network shall provide the technical data as per format specified by the Central Transmission Utility in the detailed procedure.
- (4) Generating Stations connected to or intending to connect to ISTS shall furnish status of their projects to CTU from time to time as specified in detailed procedure.
- (5) Regional Power Committee(s) shall assist the Central Transmission Utility in preparation of base case in consultation with STUs/ Distribution licensees of the region. It shall also discuss and suggest modifications when base case along with system studies is shared by the Central Transmission Utility. RPCs shall monitor implementation of matching intra-state system on quarterly basis.
- 6. Augmentation of the transmission system:** (1) The Central Transmission Utility shall, while planning to augment ISTS in the form of expansion or upgradation shall consider the following:
- (a) New and emerging technologies;
 - (b) Cost-benefit analysis outcome;
 - (c) Likely shutting down of old/ inefficient generating stations;
 - (d) Renewable capacity addition;
 - (e) Renewable Purchase Obligation;
 - (f) System adequacy from the perspective of black start/ start-up supply;
 - (g) Requirement of reactive power;
 - (h) Optimal utilization of resources to ensure an efficient and economical system with due consideration to power market, cross border interconnection or any other policy initiatives of Government of India.

(2) When the augmentation of transmission system is undertaken for renewable energy sources, transmission system shall be planned by considering estimated renewable capacity additions in the Perspective Plan; Renewable Purchase Obligation (RPO) of each State; and utilizing the available margins in the system being planned for conventional power.

(3) The Central Transmission Utility may have consultations, with regard to renewable energy potential and its capacity addition, with Ministry of New and Renewable Energy (MNRE), Government of India or its authorized agencies and Departments responsible for renewable energy development of the State Governments, in advance.

7. Process of Transmission Planning: The Central Transmission Utility shall carry out transmission planning for augmentation and strengthening as under: -

(1) The Central Transmission Utility shall review and carry out transmission planning exercise at least twice a year,

(2) Consider applications for long term access, projections of electricity demand and generation, policy imperatives including renewable energy addition, national electricity plan and operational feedback from NLDC/ RLDCs/ SLDCs in terms of reliability and congestions;

(3) Prepare base case for each probabilistic scenario (options) by considering details of generation as per national level data registry maintained by CEA, details of demand from distribution licensees or State Transmission Utilities (demand projections estimated by STUs in coordination with distribution licensees) or Authority, existing and under-construction inter-State and intra-State transmission network up to desired voltage level for the above exercise;

(4) Distribution licensees and STUs shall provide the required inputs. In case, the required input is not made available by STU / distribution licensee, CTU shall approach RPC for required input.

(5) System studies shall be conducted for various probabilistic scenarios which

includes generation and load scenarios during peak, off-peak and other than peak/off-peak hours for different seasons considering low, moderate and high renewable capacity addition, varying import/export requirements of each state and scheduling of various generating stations under economic dispatch for which variable cost of existing and upcoming generating stations shall be factored in.

(6) In case requirement of total Injection to ISTS happens to be more than withdrawal requirement from ISTS, planning of ISTS shall be done for various scenarios of dispatch factoring known firm tie-ups of power.

(7) While planning the transmission system, options of upgrading the existing ISTS in place of building new transmission lines such as increasing line loading through use of compensation, reconductoring, etc., for optimally utilizing the existing assets, should also be considered.

(8) Based on progress of implementation of generating stations and upstream/downstream systems, mid-course correction for transmission system to the extent possible should be made in terms of (i) Re-configuration of planned transmission system, (ii) Phasing of transmission elements and (iii) Delay/ Deferment of some of the transmission elements;

(9) The Central Transmission Utility shall also review the inter-State transmission system in the event of change in commissioning schedule of upstream and downstream system, shift of target region, phase out of generation units, operational feedback of Regional Load Dispatch Centres and exit from long term access.

(10) Before finalizing the transmission scheme, CTU shall publish the details of all probabilistic scenarios and suggested transmission schemes on its website and seek stakeholder's comments. CTU shall finalise the transmission scheme after considering the responses received from stakeholders.

(11) Associated Intra state network planning by STU shall be integrated with planning of inter-state network. After finalization of the transmission scheme, the base case prepared as per sub-Regulation (2) and system studies carried out as per sub-Regulation (3) above along with underlying assumptions, methodology and planning criteria shall be placed before the concerned Regional Power Committee(s); All such proposals to RPC(s) shall be accompanied with documents mentioned at Regulation 8 (3) below.

(12) RPC(s), on receipt of proposal from CTU, shall consider and convey its recommendations to CTU within 2 months of receipt of such proposal.

(13) In case RPC doesn't agree with the proposal either fully or partially and CTU is of the view that the scheme is in interest of grid security/ stability or decongesting the network or overcoming a contingency, it shall record this in writing and seek regulatory approval of the Central Commission. However, prior to seeking regulatory approval, CTU shall share the reasons for not agreeing with the recommendations of concerned RPC(s) with that RPC.

(14) In case a transmission system is required in national interest or is of security /strategic importance and is funded through grant by Government of India/ State Government, CTU may, incorporate such system/ scheme directly on seeking regulatory approval of the Commission.

8. Stakeholder Consultation and Transparency

(1) CTU shall consult stakeholders such as generators, STUs, RLDCs, SLDCs and distribution licensees and maintain transparency at all stages of planning of augmentation or strengthening of ISTS.

Provided that consultations with generators/ distribution licensees shall mean consultations with the Chief Executive Officer of concerned generator/ distribution licensees or its specifically designated nominee. If a generator/ distribution licensee does not respond within 45 days, it shall be construed that consultation with that generator or distribution licensee is complete and CTU shall proceed further.

(2) The Central Transmission Utility shall ensure transparency while carrying out transmission planning under Section 38 and Section 39 of the Act through sharing of information, underlying assumptions, methodology, planning criteria and result of system study regularly.

(3) The Central Transmission Utility shall publish the following on its website and update the same on a half yearly basis:

- (a) Detailed justification for the scheme along with details of the complete scheme;
- (b) Results of System studies;
- (c) Assumptions made in system studies and inputs received from stakeholders;
- (d) Comments/ suggestions of stakeholders along with its treatment;
- (e) Likely capital costs and estimated monthly tariff; and
- (f) Status of upstream/ downstream system.

(4) CTU in discharge of its functions under Section 38(2)(b) of the Act may make such procedure and prescribe such forms as may be necessary for the purpose of planning and co-ordination relating to Inter-State Transmission System, which is not inconsistent with these regulations or any other regulations of the Commission.

9. Regulatory filings by CTU and Transmission Licensees:

9.1 Application for Regulatory approval by CTU:

(1) At the time of filing application before the Commission for grant of regulatory approval, the CTU shall submit the following:

- (a) Recommendations on the scheme by the concerned RPC(s);
- (b) Results of the system studies carried out by CTU;
- (c) Assumptions and Inputs considered in system studies;
- (d) Status of upstream/ downstream transmission system; and

- (e) Status of consultation with the stakeholders along with Comments/
suggestions of stakeholders and its treatment.

9.2 Application for Transmission License:

(1) At the time of consideration of application by this Commission for grant of transmission license to a transmission licensee, the CTU while making its recommendations shall submit the following:

- (a) Recommendations of the scheme by the concerned RPC(s);
- (b) Results of the system studies carried out by CTU;
- (c) Assumptions and Inputs considered in system studies;
- (d) Status of upstream/ downstream transmission system; and
- (e) Status of consultation with the stakeholders along with Comments/
suggestions of stakeholders and its treatment.

9.3 Application for Grant of tariff:

(1) The transmission licensee shall submit a certificate of CTU specifying the following along with the application for determination of tariff in accordance with relevant provisions of tariff regulations in vogue:

- (a) The scheme is implemented as per the terms and conditions of the license and regulatory approval granted or both, as the case may be;
- (b) The scheme has achieved/ likely to achieve its desired objectives as per system studies made; and
- (c) Information with respect to status of implementation of upstream/
downstream systems.

10. Miscellaneous. - (1) The Central Transmission Utility shall be the custodian of the base case files and system study files along with all relevant details of final accepted

network configuration.

(2) CTU shall furnish to the Commission status of on-going schemes and status of approval of proposed schemes on quarterly basis.

11. Manpower Deployment in Transmission Planning- CTU and STU shall ensure proper and adequate manpower for conducting transmission planning exercise. CTU, in consultation with STUs shall prepare a scheme for certification of personnel involved in planning at CTU and STU and submit to the Commission for approval within 6 months of issue of this Regulation.

12. Power to Relax. - The Commission, for reasons to be recorded in writing, may relax any of the provisions of these regulations on its own motion or on an application made before it by an affected person to remove the hardship arising out of the operation of Regulation, applicable to a class of persons.

13. Power to Remove Difficulty. - If any difficulty arises in giving effect to any provision of these regulations, the Commission may, on its own motion or on an application made before it by any affected person, by order, make such provision not inconsistent with the provisions of the Act or provisions of other regulations specified by the Commission, as may appear to be necessary for removing the difficulty in giving effect to the objectives of these regulations.

SANOJ KUMAR JHA,
Secy.
[ADVT.-III/4/Exty./199/18]



भारत का राजपत्र The Gazette of India

असाधारण
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भाग III-खण्ड 4
PART III-Section 4
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NEW DELHI, TUESDAY, MAY 14, 2019

CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

NOTIFICATION

No. 13/2/7/2015-PM/CERC

Dated: 8th March, 2019

In accordance with the provisions of Section 178 of the Electricity Act 2003 (36 of 2003) read with Section 66 thereof and the Guidelines on import and export of Electricity issued by Ministry of Power, Government of India, the Central Electricity Regulatory Commission hereby makes the following regulations:

CHAPTER-1 PRELIMINARY

1. Short Title and Commencement

- (1) These regulations may be called the Central Electricity Regulatory Commission (Cross Border Trade of Electricity) Regulations, 2019.
- (2) These regulations shall come into force from the date of publication in the Official Gazette.

2. Definitions and Interpretation

- (1) In these regulations, unless the context, otherwise requires:
 - (a) 'Act' means the Electricity Act, 2003 (36 of 2003);
 - (b) 'Actual Drawal' in a time-block means electricity drawn by a buying entity measured by the interface meters;
 - (c) 'Actual Injection' in a time-block means electricity injected by a selling entity, measured by the interface meters;

- (d) **‘Access Bank Guarantee or ABC’** means the bank guarantee which an applicant shall be required to furnish while seeking long-term access to Indian grid for cross border trade of electricity and shall also include the bank guarantee required to be furnished by the applicant in case the grant of long-term access requires augmentation of transmission system in India;
- (e) **‘Applicant’** means an entity located in neighbouring country who has been recognized as a Participating Entity as defined in these regulations;
- (f) **‘Available Transmission Capability’ or ‘ATC’** means the transfer capability, in MW, of the inter-control area transmission system available for scheduling cross-border transactions (through long-term access, medium-term open access and short-term open access) in a specific direction, taking into account the network security;
- (g) **‘Buying Entity’** means the entity which has been granted long-term access or medium-term open access or short-term open access and is purchasing electricity in accordance with these regulations;
- (h) **‘Central Electricity Authority’ or ‘CEA’** means Authority referred to in sub-section (1) of Section 70 of the Act;
- (i) **‘Central Transmission Utility’ or ‘CTU’** means Central Transmission Utility as defined in sub-section (10) of Section 2 of the Act;
- (j) **‘Commission’ or ‘CERC’** means Central Electricity Regulatory Commission referred to in sub-section (1) of Section 76 of the Act;

- (k) **‘Competent Authority’** means the authority of the neighbouring country vested with the power to accord approval(s) on matters related to cross border trade of electricity with India;
- (l) **‘Connection Agreement’** means an Agreement defining technical conditions of connecting to Indian grid in the course of cross border trade of electricity;
- (m) **‘Connectivity’** means the state of getting connected to the Indian grid for the purpose of cross border trade of electricity;
- (n) **‘Connectivity Regulations’** means Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009, as amended from time to time or re-enactment thereof;
- (o) **‘Contract Performance Guarantee’** means the irrevocable, unconditional and revolving bank guarantee submitted by the Transmission Service Provider to the Long Term Transmission Customers in terms of the Transmission Service Agreement;
- (p) **‘Control Area’** means an electrical system bounded by interconnections (tielines), metering and telemetry which controls the generation and/or load within the area to maintain its interchange schedule with other control areas whenever required to do so and contributes to frequency regulation of the synchronously operating system. Each neighbouring country inter-connected with Indian Grid shall be treated as a separate control area;
- (q) **‘Cross Border Trade of Electricity’** means transactions involving import or export of electricity between India and any of the neighbouring countries and shall also include transactions across India involving neighbouring countries;

- (r) **‘Cross Border Customer’** means a person who has been granted long-term access or medium-term open access or short-term open access, as the case may be, for carrying out cross border trade of electricity in accordance with these regulations;
- (s) **‘Cross Border Transmission Link’ or ‘CBTL’** means the transmission link from the pooling station within India till the pooling station of a neighbouring country, as may be specified by the Designated Authority in consultation with the Transmission Planning Agency of any of the neighbouring countries and shall include the dedicated transmission line from the generating station located within the territory of a neighbouring country getting connected with the Indian grid;
- (t) **‘Data Acquisition System’ or ‘DAS’** means a device designed to record the sequence of operation in time, of the relays, equipments, system parameters at a particular location;
- (u) **‘Dedicated Transmission System’** means the transmission system developed by a Participating Entity for transmitting electricity from a generating station located in a neighbouring country to a specified point in the Indian grid;
- (v) **‘Designated Authority’ or ‘DA’** means the authority designated by Ministry of Power, Government of India in accordance with the Guidelines;
- (w) **‘Deviation’** in a time-block for a seller means its total actual injection minus its total scheduled injection and for a buyer means its total actual drawal minus its total scheduled drawal and shall be calculated at the Interconnection point;

- (x) **'DSM Regulations'** means Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014, as amended from time to time or any subsequent re-enactment thereof;
- (y) **'Entity'** means a company or authority or Board or autonomous body corporate or juridical person of India or any of the neighbouring countries which proposes to participate in cross border trade of electricity;
- (z) **'Grid Code'** means the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010, as amended from time to time or re-enactment thereof;
- (aa) **'Guidelines'** means the Guidelines on Cross Border Trade or Import/Export (Cross Border) of Electricity issued by Ministry of Power, Government of India from time to time;
- (bb) **'Indian Grid'** means the Inter-State Transmission System (ISTS) or Intra-State Transmission System (In-STS) or both as the case may be;
- (cc) **'Interface Meters'** means special energy meters in accordance with the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, as amended from time to time;
- (dd) **'Inter-State transmission system'** and **'intra-State Transmission System'** shall have the same meaning as assigned to them under sub-sections (36) and (37) of Section 2 of the Act respectively;
- (ee) **'Interconnection Point'** means the point of interconnection located within the territory of India for the purpose of scheduling, metering, accounting and billing of electricity in the course of cross border trade of electricity between India and any of the neighbouring countries;

- (ff) **‘Long-term Access’** means the right to use the inter-State transmission system of India for a period of 7 years or more;
- (gg) **‘Long-term Power Purchase Agreement’** means a Power Purchase Agreement for a period of 7 years or more;
- (hh) **‘Medium-term Open Access’** means the right to use the inter-State transmission system of India for a period exceeding 3 months but not exceeding 5 years;
- (ii) **‘Medium-term Power Purchase Agreement’** means a Power Purchase Agreement for a period exceeding 1 year but not exceeding 5 years;
- (jj) **‘National Load Despatch Centre’** or **‘NLDC’** means the Centre established under sub-section (45) of Section 2 of the Act;
- (kk) **‘Open Access’** within the territory of India shall have the same meaning as defined under sub-section (47) of Section 2 of the Act;
- (ll) **‘Participating Entity’** means an entity approved by the Designated Authority for the purpose of cross border trade of electricity between India and any of the neighbouring countries or any entity as designated by Government of India for import or export of power through bilateral agreement between Government of India and Government of any of the neighbouring countries;
- (mm) **‘Point of Connection charges’** or **‘PoC charges’** means the nodal or zonal charges determined using Point of Connection charging method as specified

under Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges) Regulations, 2010, as amended from time to time;

- (nn) **‘Pooling Station’** means the sub-station interfacing two or more transmission lines of the same or different voltage;
- (oo) **‘Power Market Regulations’** means the Central Electricity Regulatory Commission (Power Market) Regulations, 2010, as amended from time to time or any re-enactment thereof;
- (pp) **‘Regional Power Committee’** or **‘RPC’** means the Committee as defined in sub-section (55) of Section 2 of the Act;
- (qq) **‘Scheduled Drawal’** at any time or for time block(s) means schedule of drawal in MW or MWh ex-bus given by the concerned System Operator;
- (rr) **‘Scheduled Generation’** at any time or for any time block(s) means schedule of generation in MW or MWh ex-bus given by the concerned System Operator;
- (ss) **‘Selling Entity’** means the entity which has been granted long-term access or medium-term open access or short-term open access and is selling electricity in accordance with these regulations;
- (tt) **‘Settlement Nodal Agency’** or **‘SNA’** means the nodal agency as notified by Ministry of Power, Government of India for each neighbouring country for settlement of grid operation related charges;

- (uu) **‘Sharing Regulations’** means the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010, as amended from time to time or re-enactment thereof;
- (vv) **‘Short-term Open Access’** means open access for a period up to one (1) month at a time;
- (ww) **‘Short Term Open Access Regulations’ or ‘STOA Regulations’** means Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008 as amended from time to time or re-enactment thereof;
- (xx) **‘Short-term Power Purchase Agreement’** means a Power Purchase Agreement for duration of less than one year;
- (yy) **‘System Operator’** means the entity which shall discharge the following main functions:
 - (i) Scheduling and dispatch of electricity over the Cross Border Transmission Links in accordance with grid standards specified as per the provisions of the Act;
 - (ii) Monitoring of operations and grid security of the Cross Border Transmission Links with respective neighbouring country;
 - (iii) Supervision and control over the inter-regional and or Cross Border Transmission Links as may be required for ensuring stability of the power system in coordination with the agency responsible for system operation in the concerned neighbouring country;
 - (iv) Any other functions as may be assigned by the Commission in the interest of grid security;

- (zz) **‘Time-block’** means a block of 15 minutes or any such other duration as may be specified by the Commission, for recording specified electrical parameters and quantities by special energy meters, with the first time block starting at 0000 hrs of the day;
- (aaa) **‘Total Transfer Capability’** or **‘TTC’** means the electric power that can be transferred reliably over the inter-control area transmission systems under a given set of operating conditions considering the effect of occurrence of the worst credible contingency;
- (bbb) **‘Transmission Planning Agency’** or **‘TPA’** means the Planning Agency for India or neighbouring country as specified under Regulation 4(2) of these regulations;
- (ccc) **‘Transmission Reliability Margin’** or **‘TRM’** means the margin factored in the total transfer capability for ensuring secure operation of the Cross Border Transmission Link under a reasonable range of uncertainties in system conditions.
- (2) Words and expressions used in these regulations and not defined herein but defined in the Act or the Connectivity Regulations or STOA Regulations or Grid Code or any other regulations specified by the Commission shall, unless the context otherwise requires, have the meanings assigned to them under the Act or the Connectivity Regulations or STOA Regulations or the Grid Code or any other regulations specified by the Commission from time to time.

CHAPTER-2

GENERAL PROVISIONS

3. Scope

- (1) These regulations shall be applicable to the Participating Entities in India and the neighbouring countries which are engaged in cross border trade of electricity with India.

Provided that the entities located in India who are seeking connectivity or long-term access or medium-term open access or short-term open access to the Indian grid in the course of cross border trade of electricity between India and any of the neighbouring countries shall continue to be governed by Connectivity Regulations and the STOA Regulations.

- (2) Cross border trade of electricity between India and the neighbouring country(ies) shall be allowed through mutual agreements between Indian entity(ies) and entity(ies) of the neighbouring country(ies) under the overall framework of agreements signed between India and the neighbouring country(ies) consistent with the provisions of the prevailing laws in the respective country(ies), including:
 - (i) through bilateral agreement between two countries;
 - (ii) through bidding route; or
 - (iii) through mutual agreements between entities; or

Provided that in case of tripartite agreements, the cross border trade of electricity across India shall be allowed under the overall framework of bilateral agreements signed between Government of India and the Governments of the respective neighbouring countries of the Participating Entities.

- (3) Notwithstanding the provisions of these regulations, anything done or any action taken or purported to have been done or taken for cross border trade of electricity with neighbouring country(ies) under any Agreement in force prior to the date of coming into force of these Regulations, shall be deemed to have been done or taken under the provisions of these Regulations and shall continue to be in place till the expiry of the said Agreements.

4. Institutional Framework

- (1) Designated Authority appointed by the Ministry of Power, Government of India shall be responsible for facilitating the process of approval and laying down the procedure for import and export of electricity. The Designated Authority shall coordinate with any authority designated by the concerned neighbouring country for all purposes stated in the Guidelines.
- (2) Transmission Planning Agency shall be responsible for planning of transmission system for the purpose of facilitating cross border trade of electricity and may coordinate with the Transmission Planning Agency of the concerned neighbouring country, wherever necessary. For India, this function shall be discharged by the Designated Authority.
- (3) Settlement Nodal Agency shall be responsible for settling all charges pertaining to grid operations including operating charges, charges for deviation and other charges related to transactions with a particular neighbouring country in the course of cross border trade of electricity. The Settlement Nodal Agency shall be a member of the deviation pool, reactive energy pool and other regulatory pools for payment and settlement of the corresponding charges in the pool accounts of the region having connectivity with any neighbouring country.

- (4) National Load Dispatch Centre shall act as the System Operator for cross border trade of electricity between India and the neighbouring countries and shall be responsible for granting short-term open access and for billing, collection and disbursement of the transmission charges for short-term open access transactions in accordance with the Sharing Regulations.
- (5) Central Transmission Utility shall be responsible for granting long-term access and medium-term open access with respect to cross border trade of electricity between India and the neighbouring countries and for billing, collection and disbursement of the transmission charges in accordance with the Sharing Regulations.

5. Tariff Determination

- (1) Tariff for import of electricity by the Indian Entity(ies) shall be determined through a process of competitive bidding as per the Tariff Policy notified from time to time under Section 3 of the Act or through mutual agreement between the buying Indian entity and the selling entity of the respective neighbouring country under the overall framework of agreements signed between India and the neighbouring country(ies) subject to payment of the applicable charges for transmission or wheeling of electricity through the Indian grid.

Provided that in case of import of electricity from the hydro generation projects located in any of the neighbouring countries, the tariff thereof shall be determined by the Commission as per the parameters specified in the Tariff Regulations notified from time to time, only if the hydro generator approaches the Commission through the Government of the neighbouring country and is agreed to by the buying Indian entity(ies).

- (2) Tariff for export of electricity to entities of a neighbouring country by the Indian entities through long-term or medium-term or short-term agreements may be either mutually agreed under the overall framework of agreements signed between India and the neighbouring country(ies) or discovered through competitive bidding, subject to payment of the applicable charges for transmission or wheeling of electricity through the Indian grid.
- (3) Where the tariff for import or export of electricity is mutually agreed between the Government of India and the Government of any neighbouring country involving the participating entities of the two countries, the same shall be final.

Provided that the tariff for import or export of electricity already determined through Government to Government negotiations including under Inter Government Agreements (IGA) shall continue to be determined through Government to Government negotiations till the expiry of the Agreement or as may be decided by the two countries including determination of tariff through competitive bidding.

Provided further that on expiry of the Agreement, if not extended further, the tariff may be determined through the process of competitive bidding or mutual agreements or Government to Government negotiations.

- (4) The tariff for the Cross Border Transmission Link from the pooling station within India till the Indian border may be determined through a process of competitive bidding or through Government to Government negotiations or by the Commission.

6. Trade Through Indian Power Exchanges

Any electricity trading licensee of India may, after obtaining approval from the Designated Authority, trade in the Indian Power Exchanges on behalf of any Participating Entity of neighbouring country, for the specified quantum as provided in the Approval subject to compliance with the applicable Regulations of the Commission.

CHAPTER-3

TRANSMISSION PLANNING, CONNECTIVITY AND ACCESS

7. Planning and Implementation of Cross Border Transmission Link

(1) The Cross Border Transmission Link between India and any neighbouring country shall be planned jointly by Transmission Planning Agencies of the two countries with the approval of the respective Governments keeping in view the future need for electricity trade between India and the neighbouring country.

(2) The manner of implementation of Cross Border Transmission Link between the pooling station within India till the Indian border and the implementing agency shall be decided by Government of India.

Provided that a participating entity having a generating station located in a neighbouring country may develop, operate and maintain the dedicated transmission system from the generating station to the pooling station within India at its own cost after obtaining all the necessary approvals from respective countries.

(3) The Transmission Planning Agency of India in consultation with the Transmission Planning Agency of neighbouring country shall grant access to the Participating Entities to use Cross Border Transmission Link for cross border trade of electricity.

(4) The Cross Border Transmission Link shall not form part of the basic ISTS network for the determination of PoC charges under the Sharing Regulations.

(5) The tariff for the Cross Border Transmission Link(s) from the pooling station within India to the Indian border as determined in terms of Clause (4) of Regulation 5 shall be payable by the Applicant(s).

8. General provisions for Connectivity, Long Term Access, Medium Term Open Access and Short Term Open Access

(1) A Participating Entity located in a neighbouring country shall be required to seek connectivity or long-term access or medium-term open access or short-term open access, as the case may be, through separate applications.

(2) Applications for grant of connectivity or long-term access or medium-term open access shall be made to CTU and Applications for grant of short-term open access shall be made to NLDC under these Regulations.

(3) Except where specifically provided in these Regulations, the provisions contained in the STOA Regulations and Connectivity Regulations shall apply mutatis mutandis to the participating entities for cross border trade of electricity.

9. Application fee

(1) The applications for connectivity, long-term access and medium-term open access shall be accompanied by a non-refundable application fee in Indian Rupees as provided below, payable in the name and in the manner to be laid down by the CTU:

S. No.	Quantum of Power to be injected/off taken into/from ISTS	Application fee (Rs. in Lakh)	
		For Connectivity /Long term Access	Medium-term open access
1.	Up to 100 MW	4	2
2.	More than 100 MW and up to 500 MW	6	4
3.	More than 500 MW and up to 1000 MW	12	6
4.	More than 1000 MW	18	8

(2) Access Bank Guarantee as specified under Clause (1) of Regulation 15 of these Regulations shall be deposited by the Participating Entities along with the application for long-term access.

(3) The fee for short-term open access applications shall be governed as per the Procedure issued under STOA Regulations.

10. Application for Grant of Connectivity

(1) A Participating Entity located in neighbouring country and getting connected to the Indian grid through dedicated transmission systems for cross border trade of electricity within or across India shall be required to apply for Connectivity to the Indian grid.

(2) The Participating Entity as specified under Clause (1) above shall make an application to CTU for the grant of Connectivity to the Indian grid. In addition to

the requirements specified under Connectivity Regulations, the Applicant shall furnish the following:

- (a) Approval from Designated Authority with regard to eligibility of the Participating Entity for cross border trade of electricity or copy of the Inter Government Agreement (IGA) wherever available; and
- (b) Necessary Approvals for implementing the dedicated transmission system.

(3) On receipt of the application, the CTU shall process the application and grant Connectivity as per the Detailed Procedure made under Connectivity Regulations. CTU may consult and coordinate with Transmission Planning Agency(ies) of neighbouring countries while processing the application and carry out the necessary inter-connection study as specified in the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007.

(4) Upon grant of Connectivity, the Applicant shall sign a Connection Agreement with the CTU.

Provided that in case Connectivity is granted to the inter-State transmission system of an inter-State transmission licensee other than the CTU, an agreement as provided in the Central Electricity Authority (Technical Standards for Connectivity to the Grid), Regulations, 2007 shall be signed between the Applicant, CTU and such inter-State transmission licensee.

(5) Grant of Connectivity shall not entitle an applicant to interchange any power with the Indian grid unless it obtains long-term access or medium-term open access or short-term open access for cross border trade of electricity.

(6) A Participating Entity located in the neighbouring country and getting connected to the Indian grid through Cross Border Transmission Link shall not be required to apply for Connectivity to the Indian grid.

11. Application for Short-Term Open Access

(1) The Application for short-term open access to the Indian grid and across the Indian grid for cross border trade of electricity shall be made to NLDC under these Regulations.

(2) In addition to the requirements specified under STOA Regulations for grant short-term open access to the Indian grid, the Applicant shall furnish the following:

- (a) Approval from Designated Authority with regard to eligibility of the Participating Entity for cross border trade of electricity or copy of the Inter Government Agreement (IGA) wherever available; and
- (b) Approval from Designated Authority in India and Competent Authority in neighbouring country(ies) to use Cross Border Transmission Link(s) in case connectivity is not through dedicated transmission lines.

(3) NLDC shall process the Application and grant short-term open access in accordance with the Procedure made under STOA Regulations.

12. Application for Long-Term Access and Medium-Term Open Access

(1) The application for long-term access or medium-term open access to Indian grid and across Indian grid for cross border trade of electricity shall be made to CTU.

(2) In addition to the requirements specified under Connectivity Regulations for grant of long-term access or medium-term open access to the Indian grid, the Applicant shall furnish the following:

- (a) Approval from Designated Authority with regard to eligibility of the Participating Entity for cross border trade of electricity or copy of the Inter Government Agreement (IGA) wherever available; and
- (b) Approval from Designated Authority in India and Competent Authority in neighbouring country(ies) to use Cross Border Transmission Link(s) in case connectivity is not through dedicated transmission lines; and
- (c) Access Bank Guarantee as specified under Regulation 15 for long-term access.

(3) CTU shall process the application and grant long-term access or medium-term open access to the Indian grid or across the Indian grid, as the case may be, in accordance with the detailed procedure notified under Connectivity Regulations except for the provisions specified herein.

(4) Upon grant of long-term access or medium-term open access for cross border trade of electricity, the Applicant shall sign the Long Term Access Agreement or Medium Term Open Access Agreement, as the case may be, with CTU which shall contain the date of commencement of long-term access or medium-term open access, as the case may be, the point of injection of power into the Indian grid and point of drawal from the Indian grid.

Provided that in case long-term access or medium-term open access is granted to the inter-State transmission system of an inter-State transmission licensee other than the CTU, the agreement shall be signed between the Applicant, CTU and such inter-State transmission licensee.

(5) Implementation of the transmission system augmentation, if any, for grant of long-term access shall be undertaken only after the applicant has submitted the Access Bank Guarantee specified under Clause (2) of Regulation 15.

(6) Where tripartite agreement is signed for transaction across India involving two neighbouring countries, the transmission system augmentation in India for transmission of electricity across the territory of India shall be undertaken only after obtaining approval from Government of India and the Commission and the Access Bank Guarantee as specified under Clause (2) of Regulation 15 is submitted by the Applicant.

13 Timeframe for processing Long-Term Access and Medium-Term Open Access Application

(1) CTU shall process the long-term access applications made under these Regulations requiring augmentation of transmission system in the Indian Grid within one hundred twenty (120) days from the last date of the month in which application is made.

(2) Long-term access applications where augmentation of transmission system is not required shall be processed within ninety (90) days from the last date of the month in which application is made.

(3) CTU shall process the medium-term open access applications made under these Regulations within forty (40) days from the last date of the month in which application is made.

14. Treatment of delay in Transmission system and Generation projects

(1) Designated Authority shall monitor the progress of generating station including units thereof in neighbouring country along with transmission system for evacuation of power for cross border trade of electricity in consultation and co-

ordination with CTU of India, Transmission Planning Agency(ies) of neighbouring country(ies) and the developer of the generating station, at regular interval.

(2) The generating company located in the neighbouring country, implementing agency(ies) and the transmission licensee(s) shall endeavour to commission the generating station, Cross Border Transmission Link(s) and the transmission system within India respectively in matching time-frame as far as practicable.

(3) In case of delay in commissioning of generating station or unit(s) thereof and associated dedicated transmission system in the neighbouring country beyond the scheduled date agreed in the Long Term Transmission Access Agreement, the generator shall be liable to pay full transmission charges from the date of operationalisation of long-term access.

(4) In case of delay in commissioning of Cross Border Transmission Link, compensation if any to the generating company or transmission licensee or both, as the case may be, shall be as decided by the respective Governments.

(5) In the event of delay by the transmission licensee in commissioning of transmission system within India beyond its scheduled date and the generating company is ready with its generating station or unit(s), the transmission licensee shall pay transmission charges to generating company proportionate to commissioned generation capacity in case no alternative arrangement is made by the CTU.

Provided that in case of non-payment of transmission charges by the transmission licensee to the generating company, such charges shall be recovered by the CTU

from the Contract Performance Guarantee furnished by the transmission licensee and paid to the generating company.

15. Access Bank Guarantee

(1) An Applicant seeking long-term access for cross border trade of electricity shall be required to furnish to the CTU, along with the application, an Access Bank Guarantee valid for five (5) years from the date of operationalization of long term access, for an amount of Rs. Five (5) Lakhs/MW corresponding to the quantum of long-term access sought.

(2) In case the grant of long-term access requires augmentation of transmission system in India, the CTU shall intimate the cost of augmentation within ninety (90) days from the date of the month in which the application is made and the Applicant shall furnish a fresh Access Bank Guarantee valid for five (5) years for an amount equivalent to the cost of such augmentation within one (1) month of intimation of the cost of augmentation by CTU.

Provided that on receipt of the Access Bank Guarantee in pursuance to above, CTU shall return the Access Bank Guarantee submitted in terms of Clause (1).

(3) The Cross Border Customer who has been granted long-term access may approach CTU and seek permission to exit prior to the award of contract for execution of transmission system by the transmission licensee. All such requests shall be considered and decision communicated to the applicant not later than thirty (30) days from the date of the request.

Provided that where exit is permitted, the CTU may encash Rs. 20 lakhs from the Access Bank Guarantee submitted in terms of Clause (1) or Clause (2), as the case may be, and return the balance amount to the Cross Border Customer.

(4) If a Cross Border Customer relinquishes Transmission Access granted under these Regulations after the award of the contract for execution of transmission system and before operationalization of long-term access, Access Bank Guarantee shall be encashed by the CTU.

(5) In case there is delay in commissioning of the generating station and associated dedicated transmission system beyond the timelines agreed in the Long Term Transmission Access Agreement, and long-term access has been operationalized, the transmission charges if not paid by the generator as provided in Clause (3) of Regulation 14, shall be recovered by CTU by encashing the Access Bank Guarantee submitted in terms of Clause (1) or Clause (2), as the case may be.

(6) If a Cross Border Customer relinquishes Transmission Access granted under these Regulations after operationalization of long term access, Access Bank Guarantee submitted in terms of Clause (1) or Clause (2), as the case may be, shall be encashed by the CTU subject to Clause (7) of this Regulation.

(7) The quantum of Access Bank Guarantee submitted in terms of Clause (1) or Clause (2), as the case may be, shall be progressively reduced each year after the generating company begins to avail long term access corresponding to one fifth of its total value. On completion of each year, one fifth of the value of Access Bank Guarantee shall be returned to the Applicant each year up to fourth year and one-fifth of the Access Bank Guarantee shall be retained upto twelfth year of the long term access as a security towards relinquishment charges. The Applicant shall submit revised Access Bank Guarantee accordingly.

16. Operationalisation of Long-Term Access

(1) The operationalisation of long-term access for cross border trade of electricity shall start from the date indicated in the Long Term Transmission Access

Agreement or from the availability of the transmission system for operationalisation of long-term access, whichever is later and the liability of payment of transmission charges shall begin from this date.

(2) Where the operationalisation of long-term access is contingent upon commissioning of several transmission lines or systems and only some of the transmission lines or elements have been declared under commercial operations, long-term access to the extent which can be operationalized without affecting the security and reliability of the Indian Grid may be permitted for which the Long Term Transmission Access customer shall pay the transmission charges for the quantum of long-term access operationalized.

(3) The Cross Border Customer shall submit certificate regarding Commercial Operation declaration of the generating station or transmission system as required under Grid Code.

17. Metering Arrangements

(1) Interface Meters (Main Meter, Check Meter and Standby Meter) shall be installed at both the ends of the Cross Border Transmission Link in accordance with Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 and amendments thereof.

(2) Before flow of electricity on the Cross Border Transmission Link, Transmission Planning Agencies of both the countries shall confirm the availability of Main Meter, Check Meter and Standby Meter to System Operator of respective country.

(3) Interface Meters as specified in Clause (1) above, shall be open for inspection by any person authorized by the Transmission Planning Agencies or System Operators of the respective countries.

18. Data and Communication Facilities

a) Reliable and efficient voice and data communication systems shall be provided to facilitate necessary communication and data exchange, and supervision or control of the grid by the NLDC or RLDC, under normal and extraordinary conditions. Such communication system must be established from generating station or concerned grid sub-station(s) to control room of System Operator of a neighbouring country and from there to control room of System Operator of India.

Provided that the Cross Border Transmission Link shall necessarily have reliable and efficient voice and data communication systems with the System Operators on both the sides.

b) All Participating Entities shall ensure that the voice and data communication facilities to telemeter power system parameters such as flow, voltage and status of switches or transformer taps etc. is installed in line with interface requirements as per the applicable Regulations of CERC. The associated voice and data communication system to facilitate voice and data flow up to appropriate data collection point on CTUs system shall be established by the concerned Participating Entities as specified by CTU in the Connection Agreement.

19. System Recording Instruments

Recording instruments including Data Acquisition System/Disturbance Recorder/Event Logging Facilities/Fault Locator (including time synchronization equipment) shall be provided by all Participating Entities and shall always be kept in working condition in the Indian grid and transmission system of the neighbouring country for recording of dynamic performance of the system.

20. Reactive Power Compensation

a) Reactive Power compensation and/or other facilities shall be provided by Participating Entities connected to Indian grid as far as possible in the low voltage systems close to the load points thereby avoiding the need for exchange of Reactive Power to/from Indian grid and to maintain voltage within the specified range.

b) The Participating Entities already connected to the grid shall also provide additional reactive compensation as per the quantum and timeframe decided by respective Regional Power Committee(s) in consultation with NLDC. The Participating Entities shall provide information to Regional Power Committee(s) and NLDC regarding the installation and functioning of the reactive compensation equipment on regular basis. Regional Power Committee(s) shall regularly monitor the status in this regard.

21. Cyber Security

All Participating Entities shall have in place a cyber-security framework to identify the critical cyber assets and protect them so as to support reliable operation of the grid. NLDC shall monitor the progress in this regard.

CHAPTER-4

SYSTEM OPERATION

22. Cross border trade of electricity shall be undertaken in a manner that ensures reliable, secure and stable operation of the interconnected grid and does not jeopardize grid security at any point of time. For purposes of cross border trade of electricity, all grid operation related provisions shall be applicable as per the prevailing regulations of the Commission.

23. System Security Aspects

(1) The interconnection between India and the neighbouring country shall be monitored and controlled by the respective System Operators of the two countries, with proper coordination.

(2) No part of the Cross Border Transmission Link shall be isolated from the rest of the system, except,

- a) Under an emergency, and conditions in which such isolation would prevent a total grid collapse and/or would enable early restoration of electricity supply;
or
- b) For safety of human life; or
- c) When serious damage to a costly equipment is imminent and such isolation would prevent it; or
- d) When such isolation is specifically instructed by the System Operator(s) of either of the two Countries through specific messages exchanged to this effect.

- (3) Restoration of the cross border interconnection shall be carried out as soon as the conditions permit it. The restoration process shall be supervised by respective country's System Operator.
- (4) Provision of protection and relay settings shall be coordinated periodically by the Transmission Service Providers of both countries. These settings would be periodically reviewed as and when network configuration changes at either of the ends. If necessary, the respective countries may also put into place System Protection Schemes (SPS) to take care of any contingencies.
- (5) The Control Centres of the System Operators and the Substation Control Rooms at either ends of the Cross Border Transmission Link shall be manned by adequate and trained manpower at all times to facilitate round the clock operation of the cross border interconnections.
- (6) Operational planning including outage plan shall be carried out by NLDC and its counterpart in the neighbouring country for secure and reliable operation of the Cross Border Transmission Link.
- (7) A system of exchanging 'operational codes' shall be evolved and used for exchanging any operating instructions between the System Operators of both the countries.

24. Declaration of Transfer Capability

Total Transfer Capability (TTC), Transmission Reliability Margins (TRM) and Available Transfer Capability (ATC) for the cross border trade of electricity shall be assessed in advance by System Operators in India and the concerned neighbouring country and lower of the two values of ATC assessed by the two countries shall be considered for allowing cross border trade of electricity.

Provided that NLDC may revise TTC and ATC due to change in anticipated network topology or change of anticipated generation or load at any of nodes giving reason for such changes.

25. Scheduling

(1) The following procedure shall be followed for scheduling and despatch of cross border trade of electricity transactions between India and the respective neighbouring country:

- (a) Scheduling of electricity shall be carried out between the buying entity and selling entity as per agreed quantum in the contracts.
- (b) Scheduling shall be carried out for each 15-minute time block or such other duration as may be notified subsequently.
- (c) Transmission System losses declared on weekly basis shall be borne in kind by the buying entity or the selling entity, as the case may be, as per the quantum declared by the concerned System Operator of India or the neighbouring country.

(2) The selling entity or the buying entity, as the case may be, shall inform their requisitions to the Settlement Nodal Agency in accordance with the procedure specified as per Part - 6 on Scheduling and Despatch Code of Grid Code.

(3) Settlement Nodal Agency shall co-ordinate with System Operators of respective neighbouring countries for scheduling of cross border transactions and revisions during the day of operation.

(4) In case of multiple participants having cross border transactions the net schedule at delivery point shall be arithmetic sum of individual schedules for each transaction.

26. Metering, Energy Accounting & Settlement

(1) The Energy Accounting for all the electricity imported from a neighbouring country to India or exported from India to a neighbouring country shall be carried out on a net basis for each country by the concerned Regional Power Committee(s) (RPC(s)) in India.

(2) The Settlement Nodal Agency shall be a member of the Regional Deviation Pool Account acting on behalf of the selling entity or buying entity of the neighbouring country. In case a neighbouring country is connected to more than one region of India, Settlement Nodal Agency shall be member of respective Regional Deviation pool.

(3) The Settlement Nodal Agency shall pay or receive charges on account of deviation to or from Regional Deviation Pool maintained by NLDC as per Deviation Pool account issued by Regional Power Committee. The Settlement Nodal Agency shall settle the same with the selling entity or buying entity of the neighbouring country, as the case may be.

(4) Reactive Energy Charges shall be paid by the Settlement Nodal Agency in accordance with Grid Code, and the said charges shall be collected from the selling entity or buying entity of the neighbouring countries, as the case may be.

(5) Weekly meter readings (import or export in terms of MWh and MVarh) for actual injection or drawl by entities located in neighbouring country shall be provided to the concerned RLDC(s) or NLDC through Settlement Nodal Agency by Tuesday noon for the previous week so as to facilitate energy accounting.

(6) The charges for deviation from schedule at the inter-connection point shall be as per the DSM Regulations in India. The segregation of charges within the neighbouring country shall be carried out by the agency designated by the concerned neighbouring country.

(7) All payments shall be settled by the parties through the Settlement Nodal Agency as per timeline specified in the DSM Regulations.

27. Curtailment of Cross Border Electricity Trades in case of Contingency

(1) When for the reasons of transmission constraints or in the interest of grid security, it becomes necessary to curtail power flow on a transmission corridor; the transactions already scheduled may be curtailed by the NLDC.

(2) Subject to provisions of the Grid Code and any other regulations specified by the Commission, the short-term open access shall be curtailed first followed by the medium-term open access, which shall be followed by the long-term access.

Provided that amongst the grantees of access of a particular category, curtailment shall be carried out on pro-rata basis.

(3) In case of curtailment of the approved schedule by NLDC, transmission charges shall be payable on a pro-rata basis in accordance with the curtailed schedule.

Provided that operating charges shall not be revised in case of curtailment.

28. Event Information

(1) Events like tripping of elements impacting the electricity flow across the Cross Border Transmission Link, complete or partial blackout or any other such incidents affecting the grid operations would be reported by the concerned System Operator of India to the System Operator of the neighbouring country and vice versa.

(2) A written communication shall be exchanged between the respective System Operators covering the date and time of the event, location, plant or equipment affected and any other relevant detail (for example, Flags, disturbance recorder and sequence event recorder output) as may be necessary.

29. Coordination Between System Operators

The System Operator of India (NLDC) and its counterpart in the neighbouring country shall hold six-monthly operational coordination meetings to discuss various aspects associated with the operation of the cross border interconnection(s) including any protection and commercial related issues.

CHAPTER-5

PAYMENT OF CHARGES AND PAYMENT SECURITY MECHANISM

30. Payment of Transmission charges and other charges

- (1) PoC injection charges or PoC withdrawal charges for delivery of electricity at the pooling station within India shall be governed as per provisions of Sharing Regulations.
- (2) Settlement Nodal Agency shall put in place a suitable payment security mechanism for charges to be collected by it.
- (3) Taxes, cess, statutory duties and levies shall be payable by the Cross Border Customers as per the applicable laws of India.

31. Transmission Losses

In line with the provisions of Regulation 6.5 of Scheduling and Despatch Procedure of Grid Code and Regulation 6 on Application of losses while scheduling of contracts of the Procedure for sharing of ISTS losses, the transmission losses shall be shared as per the following methodology:

- (a) Withdrawal PoC losses as applicable shall be applied at the interface.
- (b) Injection PoC losses of respective injection grid shall be applied at the interface.
- (c) Net schedule at Indian end of the Cross Border Transmission Link shall be arrived at after applying injection PoC loss of the concerned injection zone and withdrawal PoC loss.

32. System Operation Fees and Charges

- (1) On behalf of the entities in neighbouring countries, the Settlement Nodal Agency shall pay the Fees and Charges of the System Operator in India as per Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2009 or any subsequent enactment thereof.
- (2) Settlement Nodal Agency shall register itself as a user of concerned System Operator and shall pay the registration charges as per CERC Regulations.
- (3) Any selling entity or buying entity in India proposing to sell or buy electricity from or to the neighbouring country shall make payments to the Settlement Nodal Agency for fees & charges of System Operation in India.

33. Payment Security Mechanism for Transmission Charges

- (1) The Cross Border Customer shall be liable to establish payment security mechanism for payment of transmission charges and various grid related charges.
- (2) The Cross Border Customer shall establish payment security towards transmission charges and grid related charges at least ninety (90) days prior to the intimated date of commencement of Transmission Access which shall include the following for availing long-term access and medium-term open access:
 - (a) An irrevocable, unconditional and revolving Letter of Credit in favour of the Central Transmission Utility through a bank as specified in Regulation 35 equivalent to two point one (2.1) times the average monthly bill amount towards transmission charges with a validity of 1 year.
 - (b) An irrevocable, unconditional and revolving Letter of Credit in favour of the Settlement Nodal Agency of India through bank as specified in Regulation 35

equivalent to two point one (2.1) times the average monthly bill amount towards grid related charges with a validity of 1 year.

- (3) In case of default of payment of Transmission Charges and other Grid related charges, the Cross Border Customer shall be denied access to the Indian Grid till discharge of its dues.

CHAPTER-6

MISCELLANEOUS

34. Dispute Settlement and Resolution mechanism

- (1) The disputes in relation to the cross border trade of electricity within the Indian territory shall be settled as per the provisions of Electricity Act, 2003.
- (2) Disputes involving entities of separate countries may be resolved mutually by the participating entities within a period of 60 days from the date of raising of the dispute.
- (3) In case the dispute remains unresolved even after sixty (60) days from the date of raising of the dispute, the same shall be attempted to be mutually resolved at the Government level.
- (4) In case the dispute still remains unresolved, it shall be settled through the International Arbitration Centre as may be mutually acceptable to the parties to the dispute.

35. Bank details

Bank Guarantees, Letter of Credit or any other payment security or payment required to be provided under these regulations shall be furnished by the Applicant or the Cross Border Customer in Indian Rupees from a Nationalized Bank of India or from a bank in the concerned neighbouring country which shall be confirmed by a Nationalized Bank of India.

36. Power to Relax

The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected, relax any of the provisions of these regulations on its own motion or on an application made before it by an interested person.

37. Power to issue directions

If any difficulty arises in giving effect to these regulations, the Commission may on its own motion or on an application filed by any affected party, issue such directions as may be considered necessary in furtherance of the objective and purpose of these regulations.

SANOJ KUMAR JHA,
Secy.
[ADVT.-III/4/Exty./44/19]



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CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

No.L-1/153/2019/CERC

Dated: The 5th April 2019

NOTIFICATION

In exercise of powers conferred under Section 178 of the Electricity Act, 2003 (36 of 2003) read with sub section 4 of section 28 thereof and all other powers enabling it in this behalf, and after previous publication, the Central Electricity Regulatory Commission hereby makes the following regulations, namely:

CHAPTER-1 PRELIMINARY

1. Short title and commencement

- (1) These regulations may be called the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Dispatch Centre and other related matters) Regulations, 2019.
- (2) These regulations shall come into effect from the date of their publication in the Official Gazette, and unless reviewed earlier or extended by the Commission, shall be applicable during the control period from 1.4.2019 to 31.3.2024.

2. Scope and extent of application

These regulations shall be applicable for determination of fees and charges to be collected by Regional Load Despatch Centres from the generating companies, distribution licensees, inter-State transmission licensees, buyers, sellers and inter-State trading licensees and any other users.

3. Definitions: In these regulations, unless the context otherwise requires:

- (1) **'Act'** means the Electricity Act, 2003 (36 of 2003);
- (2) **'Additional Capitalization'** means the capital expenditure incurred or projected to be incurred, after the date of commercial operation of the project and admitted by the Commission after prudence check
- (3) **'Annual LDC Charges (ALC)'**: The Annual LDC charges (ALC) shall comprise the aggregate revenue requirement (ARR) for meeting the annual expenditure to be incurred by the RLDC and NLDC as approved by the Commission.
- (4) **'Auditor'** means an auditor appointed by the Power System Operation Corporation Limited, qualified for being appointed as an auditor in accordance with the provisions of sections 224, 233B and 619 of the Companies Act, 1956 (1 of 1956), as amended from time to time or Chapter X of the Companies Act, 2013 (18 of 2013), or any other law for the time being in force;
- (5) **'Bank Rate'** means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;
- (6) **'Buyer'** means a person buying power through medium term open access or long term access and whose scheduling, metering and energy accounting is coordinated by the Regional Load Despatch Centre;
- (7) **'Capital Cost'** means the capital cost as defined in Regulation 14 of these regulations;
- (8) **'Capital Expenditure' or 'CAPEX'** means the expenditure of capital nature planned to be incurred during the control period for creation of assets of the Regional Load Despatch Centres or National Load Despatch Centre, as the case may be;
- (9) **'Charges'** means recurring payments on monthly basis to be collected by the Regional Load Despatch Centres for the services rendered by National Load Despatch Centre, Regional Load Despatch Centre and Power System Operation Corporation Limited;

- (10) **‘Commission’** means Central Electricity Regulatory Commission referred to in sub-section (1) of section 76 of the Act;
- (11) **‘Contingency Reserve’** is the reserve to be created and maintained by RLDCs and NLDCs from other incomes (other than registration fees and approved annual LDC charges) viz. short term open access application fees and operating charges, REC and PAT charges etc.
- (12) **‘Contracted Capacity’** means the capacity arranged through long term access or medium term open access;
- (13) **‘Control Period’** means a period of five years starting from 1.4.2019;
- (14) **‘Day’** means the 24 hour period starting at 0000 hour;
- (15) **‘Effective tax rate’** for tax on return on equity is the rate (in %) calculated on the basis of actual tax paid by the concerned Load Despatch Centre in the respect of the financial year in line with the provisions of the relevant Finance Acts and in line with the norms defined in CERC (Terms and Conditions of Tariff) Regulations for the relevant control period notified by the Commission;
- (16) **‘Expenditure Incurred’** means the fund, whether equity or debt or both, actually deployed and paid in cash or cash equivalent, for creation or acquisition of a useful asset and does not include commitments and the liabilities for which no payment has been made;
- (17) **‘Ergonomics’** means the science of refining the design of products/Office equipment to optimize them for human use. Human characteristics, such as height, weight, as well as information about human hearing, sight, temperature preferences and so on are considered while choosing the workplace equipment/furniture. Ergonomics is sometimes known as human factors engineering;
- (18) **‘Fees’** means the non-refundable one-time or fixed payments collected by the Regional Load Despatch Centres, or in a defined periodicity, by the National Load Despatch Centre, for the services rendered for commencement of grid access and scheduling and

on account of registration, membership or any other purpose as specified by the Commission from time to time;

- (19) **Forum of Load Despatchers (FOLD)** means the body constituted by Forum of Regulators (FOR) and having NLDC, RLDCs, SLDCs as its members with secretariat at NLDC;
- (20) **'Grid Access'** means the permission granted by the concerned RLDC for integration of the generating station including a stage or unit of the generating station, or licensees, buyers and sellers with the grid on meeting the technical requirements;
- (21) **'LDC Development fund'** is the fund to be created and maintained by POSOCO for administering capital expenditure & other expenses for empowerment of human resources as approved by the Commission;
- (22) **'Licensee'** means a person granted a license under Section 14 of the Act;
- (23) **'Logistics Function'** means the support functions for NLDC/RLDCs as per Regulation 5(1) of these Regulations;
- (24) **'Market Operation Function'** means functions related to power market as per Regulation 5(2) of these Regulations;
- (25) **'National Load Despatch Centre' or 'NLDC'** means the Centre at the national level established by the Central Government under sub-section(1) of Section 26 of the Act;
- (26) **'Operational Expenditure or OPEX'** refers to all the services related to the functions where a significant portion of delivery is through an annual recurring expenses mode;
- (27) **'Other Support Functions'** means the functions performed by the RLDCs and NLDC and includes but not limited to taxation and TDS Reconciliation, Accounting, Settlement, Billing & Collection, Contracts, human resource administration, management information system, legal & regulatory affairs and inputs for policy making;
- (28) **'Power System Operation Corporation Limited' or 'POSOCO'** means a company

entrusted with the operation of the National Load Despatch Centre in accordance with Section 26 of the Act and Regional Load Despatch Centres in accordance with Section 27 of the Act or any other related function assigned by the Govt./ Commission from time to time;

- (29) **‘Region’** means any one of the regions demarcated by the Central Government under Section 25 of the Act;
- (30) **‘Regional entity’** means an entity whose scheduling, metering and energy accounting is done at the regional level by the concerned Regional Load Despatch Centre;
- (31) **‘Regional Load Despatch Centre’ or ‘RLDC’** means the Centre for each region established by the Central Government under sub-section (1) of Section 27 of the Act;
- (32) **‘Replacement Expenditure’ or ‘REPEX’** means the expenditure incurred or projected to be incurred for replacement of capital assets on completion of their useful life but are not covered under the Repairs and Maintenance expenses;
- (33) **‘Regulatory Pool Account’** means the account operated by the RLDCs or NLDC under the relevant regulations or orders by the Commission for handling Deviation Settlement Charges, Reactive Energy Charges, Ancillary Services Operation, Congestion Charges and Congestion Revenue amount due to market splitting or any other pool account/market product which may be operated by RLDCs or NLDC from time to time as per the Regulations or directions of the Commission;
- (34) **‘Scheme’** means the facilities and equipment associated with and installed at the RLDCs, NLDC and Corporate office of POSOCO, as the case may be, as per Regulation 6 of these Regulation;
- (35) **‘Seller’** means a person other than a generating company supplying power through medium term open access or long term access and whose scheduling, metering and energy accounting is coordinated by RLDCs or NLDC;
- (36) **‘State Load Despatch Centre (SLDC)’** means the center established under sub-section (1) of section 31 of the Electricity Act, 2003;

- (37) **‘System Operation Function’** shall be as per Regulation 5(3) of these Regulations;
- (38) **‘User’** means the generating companies, distribution licensees, buyers, Bulk consumers (SEZ), sellers and inter-State transmission licensees, Demand Response Consumers, Qualified Coordinating Agency (QCA), or any other such existing (or envisaged in future) entity who use the inter-State transmission network or the associated facilities and services of National Load Despatch Centre and Regional Load Despatch Centres further detailed as per Regulation 7 of these Regulations;
- (39) **‘Year’** means a financial year;

The words and expressions used in these regulations and not defined here in but defined in the Act or the CERC (Indian Electricity Grid Code), Regulation, 2010 shall have the meaning assigned to them under the Act or the CERC (Indian Electricity Grid Code) Regulations, 2010 as amended from time to time.

CHAPTER-2

GENERAL

4. Registration

- (1) The users shall register through online application with the respective Regional load Despatch Centre (RLDC) for commencement of Grid Access for availing system operation services of RLDCs or NLDC as under:

- (a) All generating stations, distribution licensees and inter-State transmission licensees or any other user defined under clause 3(38) of these regulations intending to avail the Grid Access shall register themselves with concerned Regional Load Despatch Centre responsible for scheduling, metering, energy accounting and switching operations, not less than 30 days prior to intended date of commencement of Grid access, by filing an application in the format prescribed at **Appendix-IV** of these regulations:

Provided that when a unit is added to a generating station or an element is added to a transmission system, the generating company or transmission licensee, as the case may be, shall send an intimation to the concerned RLDC(s) within two days of such addition for updating its records;

- (b) The buyers and sellers who intend to avail grid access shall register themselves with the concerned Regional Load Despatch Centre not less than 30 days prior to intended date of commencement of grid access by filing an application in the format prescribed as **Appendix-IV** to these regulations;
 - (c) The Power exchanges and traders who intend to avail the services of RLDCs and NLDC shall register themselves with the National Load Despatch Centre by filing an application in the format prescribed as Appendix-IV to these regulations.
- (2) Upon submission of the online application for registration, auto-generated acknowledgement for receipt of application shall be issued by the nodal agency.
 - (3) After scrutiny, RLDC/NLDC shall intimate the deficiencies in the application, if any, to the applicant within one week of receipt of application. The applicant shall rectify

the deficiency within one week thereafter, failing which the application shall be closed.

- (4) The RLDCs or NLDC, as the case may be, after scrutinizing applications for registration and on being satisfied with correctness of the information furnished in the application shall register the applicant and send a written intimation to the applicant.
- (5) The generating companies, distribution licensees, inter-State transmission licensees, power exchanges, traders, sellers and buyers and any other user as specified in Regulation 3(38) shall pay the registration fees as specified in these Regulations.
- (6) RLDCs or NLDC as the case may be shall maintain a list of registered users on their website along with their date of registration.
- (7) RLDC may, after issuing notice of at least one month, de-register a user in case of persistent default in payment of RLDC Fees and Charges for more than 90 days or termination of connectivity. A user can subsequently re-register once the default has been cured or connectivity re-established by paying 50% of the original registration charges.

5. Functions of RLDC and NLDC

- (1) Logistics Functions includes design, operations & maintenance of but shall not be limited to the following:
 - (a) Engineering of new SCADA/EMS/WAMS/REMC upgrades
 - (b) Maintenance of SCADA/EMS/WAMS/REMC infrastructure
 - (c) Synchro-phasor technologies
 - (d) Real time software applications
 - (e) Off-line software applications
 - (f) Big Data Analytics tools
 - (g) Decision Support Systems

- (h) IT, Networking and Communication systems including websites, Wi-Fi access systems, cyber security & other related systems
 - (i) Conference & meeting related facilities including audio-visual equipment such as video conference equipment etc.,
 - (j) Power supply system
 - (k) Fire fighting & alarm systems
 - (l) Ergonomic systems
 - (m) Public Address System
- (2) Market Operation function includes but shall not be limited to the following functions:
- (a) Facilitating Grid Access to new entities including but not limited to first time charging of elements
 - (b) Feedback in respect of Market Design, for complementing reliability and causing economy
 - (c) Open Access Administration
 - (d) Finalization of Inter-change schedules for energy accounting
 - (e) Day Ahead Market
 - (f) Real Time Market
 - (g) Ancillary Services Markets
 - (h) Interface Energy Metering.
- (3) Registry Function under REC and PAT and similar other scheme as directed by the Commission includes:
- (i) Information dissemination.
 - (j) Any other functions assigned to the RLDCs or NLDC under the Act and/or National Load Despatch Centre Rules, 2005 ('NLDC Rules') or the regulations and orders issued by the Commission from time to time;
- (4) System Operation function includes but shall not be limited to the following functions
- a) Operational Planning**
 - (i) Load Forecasting

- (ii) RE forecasting
- (iii) Fuel security assessment
- (iv) Production cost optimization studies
- (v) Generating outage planning
- (vi) Transmission outage planning
- (vii) Assessment of Transfer Capability
- (viii) Reactive Power studies
- (ix) Short circuit and transient stability studies
- (x) small signal stability studies
- (xi) Electromagnetic transient studies
- (xii) Mock black start drills
- (xiii) Operation of back up control centre
- (xiv) Preparations for special events like festivals, natural calamities like cyclone, floods etc.
- (xv) Documentation of procedures (operating, restoration)

(b) Scheduling and Despatch on day-ahead and real time basis

- (i) Day ahead security studies factoring all outages
- (ii) Unit commitment
- (iii) Day ahead optimization and scheduling
- (iv) Shift Crew Resource Management
- (v) Anticipating and mitigating congestion
- (vi) Preparation for special events
- (vii) Handling requests for emergency/urgent outages unforeseen in operational planning horizon

c) Real Time Operation

- (i) Frequency Control
- (ii) Voltage control
- (iii) Tie line loading control
- (iv) Congestion management
- (v) Ensuring security at all times
- (vi) Ancillary Services
- (vii) Balancing Services, Automatic Generation Control

- (viii) Real Time Contingency Analysis
- (ix) Dynamic Security Assessment
- (x) Monitoring weather updates
- (xi) Handling emergency outage requests
- (xii) Restoration of network after tripping
- (xiii) Rescheduling of generation
- (xiv) Reporting of a grid disturbance (GD)/grid incident(GI)
- (xv) Periodic communication with stakeholders and sensitizing in case of emergency
- (xvi) De-briefing after an extreme event

d) After the Fact or Post Despatch Analysis:

- (i) Analysis of frequency and voltage
 - (ii) Analysis of Grid Code violations and follow up with agencies
 - (iii) Analysis of Grid Events (GD/GI)
 - (iv) Evaluating primary response viz. computation of Frequency Response Characteristics (FRC) of individual control areas
 - (v) Low Frequency Oscillations (LFO) monitoring and analysis
 - (vi) Detailed reports of Grid Disturbances/Grid Events
 - (vii) Simulation of events and learnings thereof
 - (viii) Event replay, lessons learnt and dissemination of same
 - (ix) Taking up shortcomings with stakeholders
- (e) Submission of Operational feed back to CEA/CTU/STU/CERC/SERC**
- (f) Information dissemination and any other function(s) assigned to the RLDCs or NLDC, as the case may be, under the Act or NLDC Rules or regulations and/or orders issued by the Commission from time to time;**

6. Scheme includes but shall not be limited to the following: -

- (k) Supervisory control and data acquisition (SCADA) System, Wide Area Measurement System (WAMS), Renewable Energy Management Centre (REMC), Weather Portal and other such related information systems
- (l) Computer systems, hardware and software, Cyber Security Systems, Multiple Video conferencing facilities, Voice Recording Systems
- (m) Ergonomically designed office furniture/equipment

- (n) Auxiliary power supply system comprising Uninterrupted Power Supply, Diesel Generating Set and DC power system
- (o) Communication system including redundant communication infrastructure – Satellite communication in addition to conventional systems
- (p) Other infrastructure facilities, such as air-conditioning, fire-fighting and construction and renovation of buildings, roof-top solar units for energy efficiency etc.
- (q) Any innovative schemes R & D projects and pilot projects for better system operation, such as Synchro-phasors, System Protection Scheme,
- (r) Disaster Recovery (Main-I & Main-II) control centres for RLDCs and NLDC
- (s) Surveillance System
- (t) Dual redundant internet connectivity for Web Servers of LDCs
- (u) NMS (Network Management System) & Asset management tool for Network & IT Asset Monitoring
- (v) Market Management System Software
- (w) Cyber Security System infrastructure facilities such as Anti-APT (Advanced Persistent Threat) monitoring, Vulnerability Assessment for Persistent Threat (VAPT)& control Device, Local Area Network (LAN) Zone & Layer, Secure Sockets Layer (SSL) Certificate, SSL Virtual Private Network (VPN) and Security Information & Event Management (SIEM)
- (x) Infrastructure to ensure high availability of the Information Technology (IT) and Operational Technology (OT) applications:
- (y) Redundant communication links / distribution path for IT / OT equipment
 - (a) Redundant site infrastructure – Disaster Recovery
 - (b) Multiple independent distribution path serving the equipment
 - (c) Dual powered and fully compatible with the site topology
 - (d) Cooling equipment dual powered including air-conditioning system
 - (e) Fault tolerant site infrastructure with electrical power storage, standby power supply, distribution facility
 - (f) Physical access security needs to be ensured for IT – OT infrastructure with biometric access, CCTV surveillance, fire alarm and firefighting system.
- (z) Additional infrastructure facilities like ‘Digital Signature’, ‘Instant Messaging for Business’, ‘Centralized Patch Management and Antivirus server’, ‘Syslog Server’ and

‘Enterprise class Backup and replication software’ etc.

(aa) Future Technologies like Cloud Computing (e.g. PaaS (Platform as a Service), SaaS (Software as a Service) and DaaS (Desktop as a Service) are available on Public Cloud, Private Cloud and Hybrid Cloud), Big Data Analytics tools and Advanced data visualization tool (with GIS interfacing) etc.

(bb) Ergonomically designed office equipment

7. Users specifications

- (1) A generating station or unit whose scheduling, metering and energy accounting is carried out separately for each stage or unit, such generating station or stage or unit shall be considered as a user for the purpose of sharing of Annual LDC Charges (ALC) in accordance with Regulation 31 of these Regulations and for payment of registration fees in accordance with Regulation 29 of these Regulations;
- (2) In case of inter-State transmission licensees, each region where the licensee has the operation shall be considered as a user for the purpose of these Regulations;
- (3) Where the inter-State transmission system is having cross-border international connections, the agency designated by Government of India for coordinating the scheduling, metering and energy accounting for the transaction carried out for import and export of power through the said transmission system shall be considered as a user for the purpose of these Regulations;
- (4) Where any cross border generating station is connected to the inter-State transmission system of the Indian Grid and is injecting power through medium and/or long term PPA, the agency designated by Government of India for coordinating the scheduling, metering and energy accounting for the transaction carried out for import or export of power through the said transmission system shall be considered as a user for the purpose of these Regulations;
- (5) Sardar Sarovar Project (SSP), DVC and Bhakra Beas Management Board (BBMB), whose scheduling, metering and energy accounting is carried out by the concerned RLDCs, shall be considered as users of the respective Regional Load Despatch Centres for the purpose of this Regulation;
- (6) Distribution licensee selling power through LTA or MTOA and using transmission

system shall be considered as a user under the category "Seller" for the purpose of these Regulations;

- (7) Any other entity which may use services of the RLDCs and NLDC from time to time;

8. Capital Expenditure (CAPEX) and Replacement Expenditure (REPEX) Plan:

- (1) The RLDCs and NLDC shall formulate the scheme for Capital Expenditure (CAPEX) and Replacement Expenditure (REPEX) for the control period duly approved by the Board of Directors of Power System Operation Corporation Limited. The CAPEX and REPEX plan shall also include future costs to be incurred for the up-gradation, modernization, automation and expansion of infrastructure in addition to existing capital assets.
- (2) The concerned RLDCs or NLDC as the case may be shall submit the following along with the petition for determination of fees and charges:
 - i) the CAPEX for the control period along with details of estimated expenses, and estimated completion period of each scheme;
 - ii) the REPEX plan for capital expenditure of existing asset, completion of life of existing asset, cumulative depreciation recovered, date of replacement, cumulative repayment of loan upto date of replacement, writing off of the gross value of the original assets from the original fixed assets along with estimated expenses and estimated completion period of each scheme.
- (3) In relation to any consolidated schemes of CAPEX and REPEX involving one or more RLDCs and/or NLDC, the capital expenditure chargeable to each RLDC and NLDC shall be segregated and considered as a part of capital expenditure of RLDC concerned and NLDC, as the case may be.

9. OPEX Plan

RLDCs and NLDC shall identify the services to be engaged under OPEX and shall submit, along with the petition for determination of Fees and Charges, an year wise OPEX plan duly approved by the Board of Directors of POSOCO.

CHAPTER-3

DETERMINATION OF FEES AND CHARGES

10. Application for determination of fees and charges

- (1) The RLDCs and NLDC shall make application in the formats annexed as **Appendix-I** to these Regulations within 180 days from the date of notification of these Regulations, for determination of fees and charges for the control period, based on the capital expenditure incurred and duly certified by the auditor as on 1.4.2019 and projected to be incurred during the control period based on CAPEX, OPEX, REPEX and other expenditures viz. Human Resource expense, Operation & Maintenance, Interest on working capital etc.
- (2) The application shall contain particulars such as source of funds, equipment proposed to be replaced, details of assets written off, and details of assets to be capitalized etc.
- (3) Before making the application, the concerned RLDC or NLDC, as the case may be, shall serve a copy of the application on the users and submit proof of service along with the application. The concerned RLDC or NLDC shall also keep the complete application posted on its website till the disposal of its petition.
- (4) The concerned RLDC or NLDC, as the case may be, shall within 7 days after making the application, publish a notice of the application in at least two daily newspapers, one in English language and one in another Indian language, having circulation in each of the States or Union Territories where the users are situated, in the same language as of the daily newspaper in which the notice of the application is published, in the formats given in **Appendix-II** to these regulations. The RLDC or NLDC as the case may be will recover such expenditure on publication of notice of the application from the Users, as one-time expenditure.
- (5) The concerned RLDC or NLDC, as the case may be, shall be allowed the fees and charges by the Commission based on the audited capital expenditure incurred as on 1.4.2019 and projected to be incurred during control period as per Management Certificate for CAPEX and REPEX:

Provided that the application shall contain details of underlying assumptions and justification for the capital expenditure incurred and the expenditure proposed to be incurred in accordance with the CAPEX and REPEX.

- (6) If the application is inadequate in any respect as required under **Appendix-I** of these regulations, the application shall be returned back to the concerned RLDC or NLDC for resubmission after rectifying the deficiencies as may be pointed out by the Commission.
- (7) The Commission shall consider the suggestions and objections, if any, received from the respondents and any other person including the consumers or consumer associations. The Commission shall issue order determining the fees and charges after hearing the petitioner, the respondents and any other person permitted by the Commission.
- (8) During pendency of the application, the applicant shall continue to bill the users on the basis of fees and charges approved by the Commission during previous control period and applicable as on 31.3.2019, for the period starting from 1.4.2019 till approval of the Fees and Charges by the Commission, in accordance with these Regulations. This shall be subject to true up as approved by the Commission for the Control Period 2019-2024.
- (9) After expiry of the control period, the applicant shall continue to bill the users provisionally on the basis of fees and charges approved by the Commission and applicable as on 31.3.2024 for the period starting from 1.4.2024 till approval of fees and charges under the applicable regulations.

11. Determination of Fees and Charges

The Fees and Charges shall be determined separately for each of the Regional Load Despatch Centres and National Load Despatch Centre;

Provided that the annual charges of NLDC including corporate office expenses for the control period shall be apportioned among Regional Load Despatch Centres on the basis of the peak met (in MW) in the respective region as indicated on CEA's website for the preceding year.

12. Prudence Check of Capital Expenditure

The principles adopted for prudence check of capital cost shall be reasonableness of capital cost, financing plan, interest during construction, use of efficient technology, upgradability/ scalability of the technology and systems to accommodate the growing requirement of system operation, cost over-run and time over-run, procurement of equipment and materials through competitive bidding and such other matters as may be considered appropriate by the Commission for determination of fees and charges :

Provided that, while carrying out the prudence check, the Commission shall also examine whether the RLDCs or NLDC, as the case may be, has been careful in its judgments and decisions in execution of the project.

13. Truing up of Annual Charges

- (1) The RLDCs and NLDC shall make an application, in the formats annexed as **Appendix-I** to these regulations by 31.10.2024, for carrying out truing up exercise after end of the control period.
- (2) The RLDCs and NLDC shall submit, along with the application for truing up, details of capital expenditure including additional capital expenditure, sources of financing, human resource expenditure, operation and maintenance expenditure etc. incurred for the period from 1.4.2019 to 31.3.2024, duly audited and certified by the auditor.
- (3) The Commission shall carry out truing up exercise along with the application for determination of fees and charges for the next control period based on the capital expenditure including additional capital expenditure incurred up to 31.3.2024 and as admitted by the Commission after prudence check at the time of truing up:

Provided that each of the Regional Load Despatch Centre or National Load Despatch Centre, as the case may be, shall carry out annual reconciliation and provisional truing up of expenditure based on the capital expenditure including additional capital expenditure up to 31st March of each financial year of the control period and refund the additional recovery of fees and charges to the users by 30th September of the following year.

Provided that the RLDC or NLDC, as the case may be, shall carry out mid-term review of its expenses once within the control period, if the same is felt necessary in view of the emergent situation such as pay revision, significant deviation w.r.t. approved CAPEX or REPEX or any other unforeseen requirement, and may file the True-up Petition before the Commission, not before two years from the date of commencement of these Regulations.

- (4) The amount under-recovered or over-recovered by each of the Regional Load Despatch Centres or National Load Despatch Centre, as the case may be, along with simple interest at the rate equal to the bank rate as on 1st April of the respective year, shall be recovered or refunded by the respective RLDCs or NLDC or users, as the case may be, in six equal monthly installments.

CHAPTER-4

COMPUTATION OF CAPITAL COST AND ADDITIONAL CAPITALISATION

14. Computation of Capital Cost

- (1) The capital cost as admitted by the Commission after prudence check, for each of the Regional Load Despatch Centres or NLDC, as the case may be, shall form the basis for determination of annual charges.
- (2) The capital cost shall be computed by considering the following:
 - (i) The Capital cost as admitted by the Commission as on 01.04.2019 duly trued up by excluding liability, if any;
 - (ii) Expenditure on account of additional capitalization determined in accordance with the Regulation 15(1);
 - (iii) The fixed assets which have been replaced during control period shall be de-capitalized in accordance with Regulation 15 (2);
 - (iv) Interest during construction and incidental expenditure during construction;
 - (v) Any grant received from the Central or State Government or any statutory body or authority for execution of the project which does not carry any liability of repayment shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation;
- (3) The Capital cost shall be admitted after prudence check which may include scrutiny of the reasonableness of the capital expenditure, financing plan, Interest During Construction (IDC), Incidental Expenditure During Construction (IEDC), financing charges, any gain or loss on account of Foreign Exchange Rate Variation (FERV), cost over-run and time over-run and such other matters as may be considered appropriate by the Commission:

Provided that interest during construction shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking in to account the prudent phasing of funds duly adjusting IDC on account of time over run if any;

Provided further that incidental expenditure during construction shall be computed after prudence check duly adjusting the IEDC on account of time over run, if any, interest on deposits or advances, or any other receipts and liquidated damages recovered or recoverable corresponding to the delay.

- (4) RLDC or NLDC shall submit Auditor Certificate for the capital expenditure incurred as on 1.4.2019 and a Management Certificate duly signed by an authorised person, not below the level of Director of the company, for the projected capital expenditure for respective years of the period 2019-24:

15. Additional Capitalization and De-Capitalization

- (1) The capital expenditure incurred or projected to be incurred for the assets already in service and the additional assets projected to be procured during tariff period may be admitted, by the Commission, subject to prudence check.
- (2) In case of de-capitalization of assets under the REPEX or otherwise, the original cost of such asset as on the date of de-capitalization shall be deducted from the value of gross fixed asset along with corresponding adjustment in equity, outstanding loan, cumulative repayment of loan and depreciation in the year such de-capitalization takes place.

16. Debt-Equity Ratio

- (1) The actual debt - equity ratio as admitted by the Commission for the period ending 31.3.2019 shall be considered for the opening capital cost of the Regional Load Despatch Centres and National Load Despatch Centre for the next control period:
- (2) The capital expenditure incurred prior to 1.4.2019, where debt-equity ratio has not been determined by the Commission for determination of annual charges of RLDC for the period ending 31.3.2019, the Commission shall determine the debt: equity ratio in accordance with Regulation 11(3) of the Central Electricity Regulatory Commission (Fees and Charges for Regional Load Despatch Centres and other related matters) Regulations, 2015:
- (3) For the capital expenditure incurred or projected to be incurred on or after 1.4.2019, the debt-equity ratio shall be considered as 70:30. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:
Provided that:
 - i. Where equity actually deployed is less than 30% of the capital cost, actual equity

- shall be considered for determination of Return on Equity;
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;
 - iii. Any grant, other than LDC development Fund obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt – equity ratio.

Explanation: The premium, if any, raised by the Power System Operation Corporation Limited while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilized for meeting the capital expenditure of the RLDC.

CHAPTER-5

FEES AND CHARGES STRUCTURE

- 17. Components of RLDC Fees and Charges:** The RLDC Fees and Charges shall comprise Regional Load Despatch Centre Fees to be recoverable by Power System Operation Corporation Limited towards registration for commencement of grid access and scheduling and annual charges to be collected in the form of Annual LDC Charges from users.
- 18. Annual LDC Charges (ALC):** The annual LDC charges shall correspond to the expenditure proposed to be incurred by the RLDCs or NLDC and as approved by Commission. The annual LDC charges (ALC) as approved by the Commission shall be recovered on monthly basis. The annual charges shall consist of the following components, namely:
- (a) Return on equity;
 - (b) Interest on loan capital;
 - (c) Depreciation;
 - (d) Operation and maintenance (excluding human resource) expenses including:
 - Administrative and General Expenses (excluding HRD expenses);
 - Repair and Maintenance Expenses;
 - (e) OPEX
 - (f) Human resource (HR) expenses including Human Resource Development (HRD) expenses;
 - (g) NLDC and Corporate office expenses
 - (h) Interest on working capital;

CHAPTER-6

COMPUTATION OF ANNUAL LDC CHARGES (ALC)

19. Return on Equity

- (1) Return on equity shall be computed in Rupee terms on the equity base determined in accordance with Regulation 16 of these regulations.
- (2) Return on equity shall be computed on pre-tax base rate of 15.50% to be grossed up as per the sub-clause (3) of this Regulation.
- (3) The rate of return on equity shall be computed by grossing up the base rate with the effective tax rate of the respective financial year based on relevant Finance Act.
- (4) Return on equity with respect to the actual tax rate applicable to the Power System Operation Corporation Limited in line with the provisions of the relevant Finance Act of the respective year during control period shall be trued up at the end of the control period.
- (5) Rate of return on equity shall be rounded off to three decimal points and be computed as per the following formula:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where 't' is the effective tax rate in accordance with sub-clause (3) and regulation 3(15).

20. Interest on Loan Capital

- (1) The loan determined in accordance with Regulation 16 shall be considered as gross normative loan for calculation of interest on loan.
- (2) The normative loan outstanding as on 01.04.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission upto 31.03.2019 from the gross normative loan.
- (3) The repayment for respective year of the control period shall be deemed to be equal to the depreciation allowed for that year. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro-rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalization of such asset.
- (4) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the respective

Regional Load Despatch Centre:

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

Provided further that if any of the Regional Load Despatch Centre does not have actual loan, then the weighted average rate of interest on the loan of Power System Operation Corporation Limited as a whole shall be considered.

- (5) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.
- (6) The Power System Operation Corporation Limited shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the users and the net savings shall be shared between the users and the Power System Operation Corporation Limited in the ratio of 50:50. The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

Provided that the users shall not withhold any payment on account of the interest claimed by the users and the Power System Operation Corporation Limited during the pendency of any dispute arising out of re-financing of loan.

21. Depreciation

- (1) The value base for the purpose of depreciation shall be the capital cost of the assets admitted by the Commission.
- (2) The salvage value of the asset (excluding IT equipment and Software) shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. The salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered as depreciable.
- (3) Land shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the capital cost of the asset.
- (4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the Regional Load Despatch Centre.
- (5) Assets fully depreciated shall be shown separately.

- (6) Value of the assets not in use or declared obsolete shall be taken out from the capital cost for the purpose of calculation of depreciation.
- (7) The balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation from the gross depreciable value of the assets appearing in the books of accounts of the Power System Operation Corporation Limited for the respective Regional Load Despatch Centre and National Load Despatch Centre.
- (8) In case of de-capitalization of assets in respect of concerned RLDC, the cumulative depreciation shall be adjusted by taking in to account the depreciation recovered in tariff by the de-capitalized asset during its useful life.

22. Operation and Maintenance Expenses

- (1) Operation and maintenance (O&M) expenses (excluding human resource expenses) shall be derived on the basis of actual operation and maintenance expenses for the years 2014-15 to 2018-19, based on the audited balance sheets. The O&M expenses shall be normalized by excluding abnormal operation and maintenance expenses, donation, loss-in-inventory, prior-period adjustments, claims and advances written-off, provisions, etc., if any, after prudence check by the Commission.
- (2) The normalized operation and maintenance expenses, after prudence check, for the years 2014-15 to 2018-19, shall be escalated at the rate of 4.77% to arrive at the normalized operation and maintenance expenses at the 2018-19 price level respectively and then averaged to arrive at normalized average operation and maintenance expenses for the 2014-15 to 2018-19 at 2018-19 price level. The average normalized operation and maintenance expenses of 2018-19 price level shall be escalated at the escalation rate as worked out in accordance with clause (4) of this Regulation to arrive the operation and maintenance expenses for the year 2019-20.
- (3) The operation and maintenance expenses for the year 2019-20 shall be escalated further at the annual escalation rate as worked out in accordance with clause(4) this Regulation to arrive at permissible operation and maintenance expenses for the subsequent years of the control period.
- (4) The escalation rate shall be worked out by considering the compounded annual growth rate, inflation rate, rationalization of O&M expenses and other factors, if any.
- (5) The actual expenditure towards Annual Maintenance Contract (AMC) of SCADA system

and other Software/Hardware like REMC, National Open Access Registry (NOAR), web based scheduling software etc. involving significant expenditure, after prudence check, shall be considered for arriving at the Operation and Maintenance Expenses during 2019-20 to 2023-24.

23. Operational Expenditure (OPEX)

OPEX shall include services like Cloud Computing, Data Storage, Data Centre, Big Data Analytics tools, Advanced data visualization tool (with GIS interfacing), Satellite Services, Weather Data Services, Web Net Use, Forecasting Services, Licensee Fee for software, tools for knowledge upgradation or training of DICs etc. NLDC may procure software of transmission cost allocation centrally, if required, for use by respective DICs under OPEX.

Actual expenditure towards engaging of services under OPEX shall be considered, after prudence check during 2019-20 to 2023-24.

24. Human Resource Expenses

- (1) Human resource expenses shall be derived on the basis of actual human resource expenses for the years 2017-18 to 2018-19 based on the audited balance sheets. The human resource expenses shall be normalized by excluding abnormal Human resource expense ex-gratia, VRS expenses, PRP/incentive, prior-period adjustments, claims and advances written-off, provisions, etc., if any, after prudence check by the Commission:
- (2) The expenses towards payment of Certificate Retainer-ship amount would be a part of the Human Resource Expenses.
- (3) Performance related pay computed in accordance with DPE /other applicable guidelines shall be met from the incentive allowed in accordance with Regulation 32 of these Regulations.

Provided that in case of any surplus in the incentive collected as per provisions of Regulation 32 after payment of performance related pay in accordance with DPE guidelines, such surplus amount shall be maintained separately to be used in subsequent years in case of shortfall of funds for payment of performance related pay as per DPE guidelines.

Provided further that in case shortfall in the funds as per Regulation 32 for distribution of

performance related pay in accordance with DPE guidelines persists, the shortfall shall be met from the LDC development Fund.

- (4) The normalized human resource expenses, after prudence check, for the year 2017-18 to 2018-19, shall be escalated at the rate of 4.77% to arrive at the normalized human resource expenses at the 2018-19 price level respectively and then averaged to arrive at normalized average human resource expenses for the 2017-18 to 2018-19 at 2018-19 price level.
- (5) The manpower approved during the year 2018-19 shall be the basis for computation of the HR expenses for 2019-20. Thereafter, for the subsequent years, the HR expenses shall be escalated at the annual escalation rate.
- (6) The average normalized human resource expenses of 2018-19 price level shall be escalated at the escalation rate as worked out in accordance with clause (8) of this Regulation to arrive the HR expenses for the year 2019-20.
- (7) The human resource expenses for the year 2019-20 shall be escalated further at the annual escalation rate as worked out in accordance with clause (8) this Regulation to arrive at permissible human resource expenses for the subsequent years of the control period:
- (8) The escalation rate shall be worked out by considering the compound annual growth rate, inflation rate, rationalization of human resource and other factors, if any.
- (9) The cost of anticipated increase in the manpower of each year of the control period shall also be considered after prudence check. The strength of manpower required for effective functioning of LDC will be as approved by the Commission while specifying the fees and charges.
- (10) Human Resource Development (HRD) expenses, incurred by the NLDC or RLDC shall be a part of HR Expenses from FY 2019-20 onwards. In addition to the capacity building of the employees of NLDC or RLDCs, capacity building workshops and training programs organized for other stakeholders will also form part of the HRD expenses. Projected annual HRD expenses will be at least 5% of the HR expenses arrived based on the methodology defined above. However, if the actual utilization towards HRD expenditure exceeds the 5% of HR expenses of any year, it shall be allowed at the time of truing up by the Commission after prudence check. In case of less than 5% utilization, it shall be refunded at the time of annual truing up. All efforts shall be made to ensure that minimum seven days training per employee per annum is imparted as per the National Training Policy.

25. Interest on Working Capital

- (1) The working capital shall cover:
 - (i) Operation and maintenance expenses (excluding human resource expenses) for one month;
 - (ii) Human resource expenses including Human Resource Development Expenses for one month;
 - (iii) NLDC charges and Corporate Office for one month; and
 - (iv) Receivables equivalent to 45 days of annual charges as approved by the Commission.
- (2) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 as per tariff Regulations.
- (3) Interest on working capital shall be payable on normative basis notwithstanding that the Power System Operation Corporation Limited has not taken any loan for working capital from any outside agency.

26. NLDC Charges and Corporate Office Expenses

- (1) To the extent applicable, NLDC charges shall be computed by following the methodology specified for computing annual charges of Regional Load Despatch Centres except interest on working capital.
- (2) The Corporate Office Expenses, computed in accordance with the actual expenses incurred, shall be allowed by the Commission, after prudence check.
- (3) The expenditure towards running the FOLD Secretariat computed in accordance with the actual expenses incurred, shall be allowed by the Commission, after prudence check.
- (4) All expenses of NLDC and Corporate Office expenses approved by the Commission shall be apportioned to the Regional Load Despatch Centre on the basis of the peak met (in MW) in the respective region as indicated in CEA's website for the preceding year.

CHAPTER-7

LDC DEVELOPMENT FUND

27. LDC Development Fund

- (1) The Power System Operation Company shall create and maintain a separate fund called 'Load Despatch Centre Development Fund' ('LDCD Fund') for administering capital expenditure.
- (2) The charges on account of return on equity, interest on loan, depreciation of the RLDCs and NLDC including the registration fees and interest earned on LDCD Fund shall be deposited into the LDCD Fund after meeting the statutory tax requirements:

Provided that short term open access charges and other income of the RLDCs and NLDC, if any, shall not form part of the LDCD Fund and will be deposited to a separate account namely Contingency Reserve as per Regulation-28 of these Regulations.

- (3) The RLDC and NLDC shall be entitled to utilize the money deposited in the LDCD Fund for creation of new assets, loan repayment, servicing the capital raised in the form of interest and dividend payment restricted to 15.50% of paid up Capital, meeting stipulated equity portion in asset creation, margin money for raising loan from the financial institutions, Corporate Social Responsibility and Sustainability Activities in compliance of the applicable provisions of the Companies Act and Dept. of Public Enterprises (DPE) / other applicable Government Guidelines issued and amended from time to time, Capacity Building of SLDCs and sub-LDC personnel and other users / stakeholders, including but not limited to using the platform of Forum of Load Despatchers (FOLD) and/or through Institutes of national/international repute for capacity building, funding participation in national/international conferences and publication of technical papers therein, facilitating higher education, availing institutional membership with national/international bodies and funding of Research & Development (R & D) projects, hiring consultancy service for learning & implementation of new technology & market products etc. subject to approval of the Commission.
- (4) LDCs shall ensure timely payment of fees like membership fee or any other recurring or non-recurring expenditure related to participation in the activities of the FOLD

from the LDCD Fund. NLDC shall deposit such fees to the LDCD Fund after meeting the expenses on FOLD activities, if any.

- (5) Any shortfall in meeting the revenue expenditure including HR expenses shall be met from LDCD Fund. For this purpose, Load Despatch Centre shall be entitled to take interest free advance from LDCD Fund which shall be recouped from the expenditure allowed by the Commission under the respective heads at the time of truing up to be carried out after the expiry of the control period 2019-24.
- (6) Any asset created by the POSOCO out of the money deposited into the LDCD Fund shall be considered for computation of depreciation as per the rates specified in these Regulations. If required, POSOCO may finance capital assets partly from the equity and partly from LDCD Fund. As such, if the capital project is partly financed from equity share capital, it shall be considered for computation of return on equity, in which case, the funding shall be considered in a normative debt equity ratio of 70:30 with the interest on loan component as NIL and the treatment of equity as per regulation 16(2) of these Regulations. Load Despatch Centre shall submit details of such assets in the CAPEX plan.
- (7) POSOCO shall submit the amount accumulated in LDCD Fund along with the break-up of sources from where the Fund is received. The POSOCO shall submit to the Commission at the end of every year, a report, along with an auditor's certificate, on utilization of LDCD Fund during the previous year. The report shall, inter alia, contain the details of the quantum of utilized as well as un-utilized portions of the LDCD Fund. The Commission may, if necessary, issue directives to the RLDCs and NLDC for effective utilization of LDCD Fund. For financing of capital assets during 2019-24, money utilized from LDCD Fund shall be treated as interest free advance to be refunded to the Reserve.

28. Contingency Reserve

- (1) The RLDCs and NLDC shall maintain a separate account namely Contingency Reserve for depositing other income like short term open access charges, REC charges, PAT Charges and any other income (if any) etc.
- (2) The RLDCs and NLDC shall use such income to meet the short fall, if any, in the annual charges allowed by the Commission or to meet the contingency expenses which were not

foreseen at the time of making the application for fees and charges and are considered necessary for the efficient power system operation.

- (3) The balance amount shall be deposited into the LDCC Fund after meeting the statutory tax requirements.
- (4) There may be some requirements for which funds available under the contingency expenses are not enough to meet the unforeseen requirements. Such shortfall may be met from the LDCC Fund.

CHAPTER-8

COMPUTATION AND RECOVERY OF FEES AND CHARGES

29. Registration Fees: The fees shall be payable by the users including power exchanges and electricity traders before commencement of grid access and scheduling. The fees payable are as under:

- (1) The distribution licensees and inter State transmission licensees shall pay non-refundable one-time registration fees of Rs.10 Lakh along with application for commencement of grid access:

Provided that the RLDCs concerned shall be intimated from time to time by the inter State transmission licensees about the additions of transmission elements synchronized with the grid and by the distribution licensees about the additional capacity tied up for the purpose of updating the record by concerned RLDC.

- (2) The generating companies shall pay registration fees as under:
 - a) For generating station upto 10 MW installed capacity: Rs. 0.50 Lakh;
 - b) Generating station having installed capacity of more than 10 MW and up to 100 MW: Rs. 1.0 Lakh;
 - c) Generating stations having installed capacity of more than 100 MW and upto 2000 MW : Rs.5.0 Lakh;
 - d) Generating stations having capacity of more than 2000 MW:Rs.10.0 Lakh, and;
 - e) Provided that the entire capacity of the generating station or stage there of whose scheduling, metering and energy accounting is done separately shall be considered for the purpose of registration fees at the time of the initial registration;
 - f) Provided further that the generating companies shall intimate RLDCs concerned about the additional capacity commissioned by the generating station or a stage thereof.
- (3) The inter-State trading licensees, sellers and buyers shall pay one time registration fees of Rs. 10,000.00 (Rupees Ten Thousands only) along with application for commencement of scheduling for market operation.
- (4) The Power exchanges shall pay Rs.20.0 Lakh (Rupees Twenty Lakh only) as one time registration fees to NLDC

- (5) All other users as defined in 3(38) of these regulations shall be liable to pay one time registration fees of Rs. 10,000 (Rupees Ten Thousand only) along with the application (ref. Appendix-IV) for commencement of grid access.

30. Monthly LDC Charges : The monthly LDC charges shall be calculated for the inter-State transmission licensees, generating stations and sellers, distribution licensees and buyers as under:

- (a) The LDC Charges for inter-State transmission licensees shall be determined on the basis of $(1/3)$ of approved annual charges and shall be worked out on the basis of the circuit kilometers (ckt-km) of the lines owned by inter-State transmission licensees;
- (b) The LDC Charges for the inter-State Generating station and sellers shall be determined on the basis of $(1/3)$ of annual LDC charges and shall be worked out on the basis of installed capacity in case of the generating station and long term and/or medium term contracted capacity in case of sellers;
- (c) The LDC Charges for the distribution licensees and buyers shall be determined on the basis of $(1/3)$ of annual charges and shall be worked out on the basis of sum of aggregate allocated capacity and/or contracted capacities in case of distribution licensee including deemed distribution licensees and sum of long term and/or medium term contracted capacity in case of buyer.

31. Computation and Payment of LDC Charges:

- (1) The rates of LDC charges for inter-State transmission licensee shall be computed on annual basis and recovered on monthly basis in accordance with following formula;

Monthly LDC Charge rate (for Transmission Licensee) =

$$(1/3) [ALC / (Ckt_Km)] / 12 \text{ in Rs./Kilometer}$$

Where,

ALC = Approved Annual LDC Charges in accordance with Chapters 5& 6;

Ckt_Km = Length of aggregate inter-State transmission lines as on last day of the month prior to the month of billing (rounded off to the nearest two decimals);

- (2) Monthly LDC charges for individual transmission licensee shall be computed on the basis of rates determined above and the length (in Ckt_ Km) of transmission lines owned and operated by the respective transmission licensee(s).

- (3) The rates of LDC charges for generating companies and sellers shall be computed on annual basis and recovered on monthly basis in accordance with following formula:

Monthly LDC Charge rate (for Generation or seller) =

$$(1/3) (ALC/(Capacity))/12 \text{ in Rs./ MW}$$

Where,

ALC = Approved Annual LDC Charges in accordance with Chapters 5 & 6;

Capacity=Aggregate Installed capacity (in MW) of generating stations and contracted capacity (in MW) of the sellers (rounded off to the nearest two decimals) whose scheduling and energy accounting is covered under concerned RLDC as on last day of the month prior to the month of billing;

- (4) The monthly LDC charges for generating companies or sellers shall be computed on the basis of rates determined above and respective 'capacity' (MW) of the generating station or seller.
- (5) The rates of LDC charges for distribution licensee and buyers shall be computed on annual basis and recovered monthly after taking into account aggregate contracted capacity in accordance with following formula:

Monthly LDC Charge rate (for Distribution Licensee or buyer) =

$$(1/3) (ALC/(Capacity))/12 \text{ in Rs./ MW}$$

Where,

ALC = Approved Annual LDC Charges in accordance with Chapters 5 & 6;

Capacity = Aggregate long term or medium term contracted capacity by distribution licensees and buyers (rounded off to the nearest two decimal) whose scheduling and accounting is covered under concerned RLDC as on last day of the month prior to the month of billing;

- (6) Monthly LDC charges from distribution licensees and buyers shall be collected in proportion to the sum of their allocations and contracted capacities, as the case may be, as on the last day of the month prior to billing of the month.
- (7) All other users having NIL contracted capacity (LTA & MTOA) shall be billed monthly ALC charge on the basis of a minimum capacity for which an entity is eligible for grant of connectivity to Inter-State transmission system as per the CERC Connectivity Regulations 2009.

- (8) The respective State Load Despatch Centre (SLDC) shall be the nodal agency for collection of monthly LDC charges payable to the concerned Regional Load Despatch Centre (RLDC), from the distribution licensees and other RLDC users in the State. After collecting the monthly LDC charge the concerned SLDC shall deposit the same into the account of the concerned RLDC. The RLDC users in the state shall have to option to make direct payment of monthly RLDC **Charges** into the account of concerned RLDCs or they may choose to pay the same through the respective SLDCs.

CHAPTER-9

PERFORMANCE LINKED INCENTIVE

32. Performance linked incentive to RLDCs and NLDC

- (1) Recovery of incentive by the Regional Load Despatch Centre shall be based on the achievement of the Key Performance Indicators (KPIs) as specified in **Appendix-V** or such other parameters as may be prescribed by the Commission.
- (2) Each Regional Load Despatch Centre shall submit its actual performance against each of the key performance indicators to the Commission on annual basis as per the format specified in **Appendix-V**.
- (3) NLDC shall submit the details in regards to each Key Performance Indicator in the format specified in **Appendix-V** along with the methodology for approval of the Commission.
- (4) The Commission shall evaluate the overall performance of the RLDCs or NLDC, as the case may be, on the basis of weightage specified in **Appendix-V**.
- (5) The RLDCs or NLDC, as the case may be, shall be allowed to recover incentive of 15% of Annual LDC Charges for aggregate performance level of 90%. The incentive shall increase by 1% on pro-rata basis for every 5% increase of performance level above 90%: The incentive shall be capped as per DPE Office Memorandum No. W-02/0028/2017-DPE (WC)-GL-XIII/ 17 dated 3.8.2017.

Provided that incentive shall be reduced by 1% on pro-rata basis for the every 3% decrease in performance level below 90%.

- (6) The RLDCs or NLDC, as the case may be, shall compute the Key Performance Indicators on annual basis for the previous year ending on 31st March and submit to the Commission along with petitions for approval of the Commission as per **Appendix-V** of these Regulations:
- (7) The key performance indicators of previous year ending on 31st March shall be considered to recover incentive on each year and shall be trued up at the end of the control period.

33. Certification Retainer-ship Amount to the employees of RLDCs and NLDC

- (1) The employees of Regional Load Despatch Centres and National Load Despatch

Centre and State Load dispatch Centres who acquire the certificate of basic level, specialist level and management level in their respective areas of specialization shall be allowed a fixed retainer-ship amount during the validity of such certificate period as per the following parameters:

SI. No.	Certification Level	Retainer-ship amount(in Rs. Per Month)
1	Basic	7500
2	Specialist	10000
3	Management	12000

- (2) A person acquiring one basic level and more than one Specialist and/or Management level certificate shall be entitled for maximum retainership amount capped at the higher applicable slab. For example, a person having both basic and specialist certificates shall be entitled for a maximum retainer-ship amount of Rs. 10,000/- per month. Similarly, a person having all three levels of certificates shall be entitled for a maximum retainer-ship amount of Rs. 12,000/- per month.
- (3) Funding will be done from the LDCD Fund for (i) payment of registration and/or application fees for appearing in basic, specialist and management level examinations, (ii) payment towards training expenses for these examinations, (iii) payment of certification retainer-ship amount to the certified LDC personnel. POSOCO shall submit detailed procedure on methodology of payment of Certificate Retainer-ship for approval of Commission within 2 months of issue of these Regulations.
- (4) Certificate Retainer-ship Amount shall be in addition to the performance linked incentive specified in Regulation 32.

CHAPTER-10

BILLING AND OTHER MISCELLANEOUS PROVISIONS

34. **Billing and Payment of charges**

- (1) Bills shall be raised for the LDC charge on monthly basis by the Power System Operation Company in accordance with these regulations, and payments shall be made by the users directly to the Power System Operation Corporation Limited.
- (2) Persistent default in payment of RLDCs/NLDC fee and charges shall be brought to the notice of the Commission.

35. Late payment surcharge: In case the payment of any bill for charges payable under these regulations is delayed by a user beyond a period of 45 days from the date of billing, a late payment surcharge at the rate of 1.5% per month shall be levied from the users.

36. Recovery of cost of hedging or Foreign Exchange Rate Variation: Recovery of cost of hedging or foreign exchange rate variation shall be made directly by the RLDCs from the users without making any application before the Commission:

Provided that in case of any objections by users regarding the cost of hedging or foreign exchange rate variation, the RLDCs may make an appropriate application before the Commission for decision.

37. **Rebate**

- (1) A rebate of 1.5% shall be allowed by the RLDCs or NLDC on gross bill amount settled through RTGS, NEFT, Letter of Credit or cheque up to fifth day (i.e. T+5 day) from the date of issuance of the bills, where T is the date of issuance of the bill.
- (2) The rebate of 1% shall be allowed when payment is made from T+6 to T+30 days from issuance of the bill.
- (3) No rebate shall be allowed for payment made from T+31 days till T+45 days from the date of issuance of the bill.

38. Dispute Resolution : In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business)

Regulations, 1999, as amended from time to time, including statutory re- enactment thereof, for settlement of the dispute.

39. **Power to Relax:** The Commission, for reasons to be recorded in writing, may relax any of the provisions of these regulations on its own motion or on an application made before it by **NLDC or RLDCs or Users** after giving reasonable opportunity to those likely to be affected by such relaxation.
40. **Removal of Difficulty:** If any difficulty arises in giving effect to the provisions of these regulations, the Commission may, by order, make such provision not inconsistent with the provisions of the Act or provisions of any other regulations specified by the Commission, as may appear to be necessary for removing the difficulty in giving effect to the objectives of these regulations.

SANOJ KUMAR JHA,
Secy.
[ADVT.-III/4/Exty./51-19]

APPENDIX
TARIFF FILING FORMS (NLDC/RLDCs)

Appendix-I

INDEX

Checklist of Forms and other information/ documents for tariff filing for NLDC/RLDCs

Form No.	Tariff Filing Formats (RLDCs)	Tick
FORM-1	Summary Sheet	
FORM-2	Calculations for Return on Equity	
FORM-3A	Financial Package	
FORM-3B	Statement of Capital Cost	
FORM-3C	Financing of Additional Capitalization	
FORM-4A	Calculation of Interest on Normative Loan	
FORM-4B	Calculation of Weighted Average Rate of Interest on Actual Loans	
FORM-4C	Details of Foreign Loans	
Form-4D	Details of allocation of Corporate loans to various RLDCs	
FORM-5A	Statement of Depreciation	
FORM-5B	Calculation of depreciation rate	
FORM-6A	Details of Operation and Maintenance Expense excluding Human Resource Expenses	
FORM-6B	Details of Human Resource Expenses	
FORM-6C	Details of Repairs and Maintenance Expenses	
FORM-6D	Details of Administrative and General expenses	
FORM-7	Details of Operational Expenditure (OPEX)	
FORM-8	Interest on Working Capital	
FORM-9	Year wise statement of LDC Development Fund (projected)	
FORM-10	Other Income	

Other Information/ Documents		
Sl. No.	Information/Document	Tick
1	Audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for RLDC /NLDC and Corporate office.	
2	Copies of relevant loan Agreements	
3	a) Copies of the approval of Competent Authority for the Capital Cost and Financial package. b) CAPEX and REPEX plan along with Board approval, estimated capital cost and justification	
4	a) Copies of the Equity participation agreements and necessary approval for the foreign equity, if any. b) Equity contribution from LDC Development Fund along with Board Approval	
5	Any other relevant information, (Please specify)	

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted shall also be furnished in the electronic form.

FORM-1

Summary Sheet

Name of the NLDC/RLDCs: _____

(Rs. In lakh)

S.N.	Particulars	Form No.	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2		3	4	5	6	7	8
1	Return on Equity ¹							
2	Interest on Loan Capital							
3	Depreciation							
4	O&M Expenses excluding human resource expenses							
5	Human resource expenses including HRD							
6	OPEX							
7	NLDC*/ RLDC charges and Corporate office expenses (as applicable)							
8	Interest on Working Capital							
	Total							

¹ Details of calculations, considering equity as per regulation, to be furnished.

*NLDC charge & corporate office expense applicable for RLDCs

Petitioner

_____ Calculations for return on equity

Name of NLDC / RLDCs :

Regional Load Despatch Centre

Year ending March

Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
Base rate of Return on Equity	%						
Tax Rate	%						

Detailed Calculation for Return on Equity

Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
GROSS EQUITY AS ON 1.4.2019 FOR RLDC ASSETS							
ADD CAP 2019-20 (AVG EQUITY DURING THE YEAR)							
ADD CAP 2020-21 (AVG EQUITY DURING THE YEAR)							
ADD CAP 2021-22 (AVG EQUITY DURING THE YEAR)							
ADD CAP 2022-23 (AVG EQUITY DURING THE YEAR)							
ADD CAP 2023-24 (AVG EQUITY DURING THE YEAR)							
TOTAL EQUITY							
RATE OF RETURN ON EQUITY							
RETURN ON EQUITY							

NOTE: Income tax rate applicable for each financial year is based on the rates as per Income Tax Act, 1961

Petitioner

FORM-3A

Financial Package

Name of the LDC: _____

Project Cost as on 1.4.2019: _____

Date of Commercial Operation: _____

(Rs in lakh)

	Financial Package as Approved		Financial Package as on COD/1.4.2019		As Admitted on 1.4.2019	
	Currency and Amount ³		Currency and Amount ³		Currency and Amount ³	
1	2	3	4	5	6	7
Loan-I						
Loan-II						
Loan-III						
and so on						
Equity-						
Foreign						
Domestic						
Total Equity						
Debt : Equity Ratio						

Petitioner

Statement of Capital cost**Name of the NLDC/RLDCs :**

(Rs in lakh)

		As on relevant date. ¹
A	a) Opening Gross Block Amount as per books	
	b) Amount of capital liabilities in A(a) above	
	c) Amount of IDC, FC, FERV & Hedging cost included in A(a) above	
	d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	
B	a) Addition in Gross Block Amount during the period	
	b) Amount of capital liabilities in B(a) above	
	c) Amount of IDC, FC, FERV & Hedging cost included in B(a) above	
	d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	
C	a) Closing Gross Block Amount as per books	
	b) Amount of capital liabilities in C(a) above	
	c) Amount of IDC, FC, FERV & Hedging cost included in C (a) above	
	d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	

¹ Relevant date/s means date of COD and financial year start date and end date

Petitioner

FORM-3C

Financing of Additional Capitalisation

Name of the NLDC/RLDCs :

(Rs. in lakh)

	Projected/Actual					Admitted				
Financial Year (Starting from 1.4.2019)	Year 1 ¹	Year 2	Year 3	Year 4	Year 5 & So on	Year 1	Year 2	Year 3	Year 4	Year 5 & So on
1	2	3	4	5	6	7	8	9	10	11
Amount capitalized 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.

Petitioner

FORM-4A

(Rs in lakh)

Calculation of interest on Normative Loan						
Name of LDC:						
Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
Gross Normative loan – Opening						
Cumulative repayment of Normative Loan upto previous year						
Net Normative loan-Opening						
Increase / Decrease due to ACE during the Year						
Repayments of Normative Loan during the year						
Net Normative loan-Closing						
Average Normative Loan						
Weighted average Rate of Interest on actual Loans						
Interest on Normative loan						

Petitioner

FORM-4B

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of LDC: _____

(Rs in lakh)

Sl. no.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
	Loan-1						
	Gross loan – Opening						
	Cumulative repayments of Loans upto previous year						
	Net loan – Opening						
	Add: Drawal(s) during the Year						
	Less: Repayment (s) of Loans during the year						
	Net loan – Closing						
	Average Net Loan						
	Rate of Interest on Loan on annual basis						
	Interest on loan						
	Loan repayment effective from (date to be indicated)						
	Loan-2 ...						
	Loan-3 and so on						
	Total Loan						
	Gross loan – Opening						
	Cumulative repayments of Loans upto previous year						
	Net loan – Opening						
	Add: Drawal(s) during the Year						
	Less: Repayment (s) of Loans during the year						
	Net loan – Closing						
	Average Net Loan						
	Interest on loan						
	Weighted average Rate of Interest on Loans						

¹Incase of Foreign Loans, the calculations in Indian Rupees is to be furnished. However, the calculations in Original currency are also to be furnished separately in the same form.

Petitioner

Form -4C

Details of Foreign Loans

Name of the LDC: _____

Exchange Rate as on 01.04.2019: _____

(Rs. in lakh)

FY starting from 1.4.19		Year-1				Year-2 – Year-3 and so on				
Sl. No	1	2	3	4	5	6	7	8	9	10
		Date	Amount (Foreign Exchange)	Exch- ange rate	Amount (in Rs)	Date	Amount (Foreign Exc.)	Excha nge Rate	Amount (in Rs)	...
	Currency1 [1]									
A1	At the date of Drawl									
2	Scheduled repayment date of principal									
3	Scheduled payment date of interest									
4	At the end of Financial year									
B	In case of Hedging [3]									
1	At the date of hedging									
2	Period of hedging									
3	Cost of hedging									
	Currency2 [1]									
A1	At the date of Drawl									
2	Scheduled repayment date of principal									
3	Scheduled payment date of interest									
4	At the end of Financial year									
B	In case of Hedging [3]									
1	At the date of hedging									
2	Period of hedging									
3	Cost of hedging									

Petitioner

FORM-5A

Statement of Depreciation

Name of LDC:

(Rs. in lakh)

Financial Year	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	11	12	13	14	15
Depreciation on Capital Cost						
Depreciation recovered during the Year						
Cumulative depreciation deducted due to de-capitalization or write off of the assets etc.						
Cumulative Depreciation & Advance against Depreciation recovered upto the year						

Petitioner

Calculation of Depreciation Rate

Name of LDC:

(Rs in lakh)

Sl. no.	Name of the Assets ¹	Gross Block as on 31.03.2019, whichever is later and subsequently for each year thereafter up to 31.3.2024	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.2024
	1	2	3	4= Col.2 X Col.3
1	Land (Freehold, Lease hold)			
2	Building and civil works			
3	Auxiliary power supply system			
4	Office furniture and furnishing			
5	Communication equipment			
6	SCADA hardware with test equipment and spares			
7	ICT equipment			
8	Software			
9	TOTAL			
	Weighted Average Rate of Depreciation (%)			

¹Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.

Petitioner

FORM-6A**Details of Operation and Maintenance Expenses excluding Human Resource expenses****Name of LDC:****(Rs. in lakh)**

	ITEMS	2019-20	2020-21	2021-22	2022-23	2023-24
	1	2	3	4	5	6
1	Repairs and maintenance expenses					
2	Administrative and General expenses etc.					
3	Total					

NOTE:

1. Detail of these expenditure as per formats enclosed
2. To be furnished for the [...] LDC.

Petitioner

Name of LDC:

Details of Human Resource Expenses

Period-	1	ACTUALS FOR PREVIOUS FIVE YEARS
	2	ACTUALS FOR IST SIX MONTHS OF THE CURRENT YEAR
	3	EXPECTED FOR LAST SIX MONTHS OF THE CURRENT YEAR
	4	EXPECTED FOR ENSUING YEAR

Sr. No.	Account Code	Particulars	Executive		Non-Executive		Total
1	Number of Employees						
2	Salaries						
3	Over-time						
4	Dearness Allowance						
5	Other Allowance						
6	Bonus						
7	Productivity Linked Incentive						
8	Sub Total (1 to 6)						
	OTHER STAFF COST						
8	Reimbursement of Medical Expenses						
9	Leave Travel Concession						
10	Reimbursement of House Rent						
11	Interim Relief to Staff						
12	Encashment of Earned Leave						
13	Honorarium						

14	Payment under Workmen Compensation Act						
15	Ex-gratia						
16	Expenditure on VRS						
17	Sub Total (8 to 16)						
18	Staff Welfare Expenses						
19	Terminal Benefits						
20	Provisions						
21	Others (Specify)						
22	Human Resource Development						
23	Total (7+17+18+19+20+21+22)						
	Revenue recovered, if any						
24	Revenue recovered, if any						
25	Net Total (23-24)						
Additional Information							
1	No. of Employees as on :						
	i) Executives						
	ii) Non-Executives						
	iii) Skilled						
	iv) Non-Skilled						
	Total						
2	No. of Employees per						
	i) MW handled						
	ii) MKwh handled						

- | | |
|-----|--|
| I) | Annual increase in HR expenses under a given head in excess of 20 percent should be explained with proper justification. |
| II) | The data should be based on audited balance sheets. |

III)	Details of arrears, if any pertaining to prior period should be mentioned separately.
IV)	No. of employees opting for VRS during each year should be indicated.
V)	Details of abnormal expenses, if any shall be furnished separately.

Petitioner

FORM-6C

Details of Repairs and Maintenance Expenses

Name of LDC:

A. Repairs and Maintenance Expenses (Actuals)

(Rs in lakh)

Sr.No.	Description	Actuals for previous Financial Year	Current Financial Year			Estimates for ensuing year
			Actual For First Six Months	Projection For Balance Six Months	Total	
1	Consumption of stores and spares					
2	Loss of stores and spares					
3	Plant & Machinery repairs and maintenance					
4	Civil works repairs and Maintenance					
5	Annual Maintenance Contract (4a+4b+4c)					
5a	-Plant & machineries					
5b	-Civil repairs and maintenance					
5c	-Others					
6	Others (Specify)					
7	Total (1+2+3+4+5+6)					
8	Revenue recoveries, if any					
9	Net Total (7-8)					

B. Repairs And Maintenance Expenses (As per Regulation)

(Rs in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Admitted Capital cost as on 1st April of the year					
Repairs and Maintenance expenses					
Repairs and Maintenance expenses as a percentage of Capital cost					

Petitioner

Details of Administrative and General Expenses**Name of LDC/:**

Sl. No.	Description	Actual for previous five Financial Year (Rs in lakh)	Current Financial Year (Rs in lakh)			Estimates for ensuing Year (Rs in lakh)
			Actual For First Six Months	Projection For Balance Six Months	Total	
	Property Related Expenses					
1	License Fees					
2	Rent					
3	Rates & Taxes					
4	Insurance					
5	Contribution to accident reserve fund					
6	Sub total :					
	Communication					
7	Telephone & Trunk Call					
8	Postage & Telegram					
9	Telex, Teleprinter Charges, Telefax					
10	Courier Charges					
11	Other					
12	Sub total :					
	Professional Charges					
13	Legal expenses					
14	Consultancy charges					
15	Technical fees					
16	Audit fees					
17	Other charges					
18	Sub total :					

	Conveyance & Travelling					
19	Conveyance expenses					
20	Travelling expenses					
21	Hire charges of vehicle					
22	Others					
23	Sub total :					
	Other Expenses					
24	Electricity charges					
25	Fees & Subscription					
26	Books & Periodicals					
27	Printing & Stationery					
28	Advertisement					
29	Entertainment					
30	Watch & Ward					
31	Miscellaneous					
32	Organizational Development Expenses					
33	Donation					
34	Sub total :					
	Material Related Expenses					
35	Demurrage and Wharfage on materials					
36	Clearing & forwarding charges					
37	Transit insurance					
38	Sub total :					
39	Others (Specify)					
40	Total (6+12+18+23+34+38+39)					
41	Revenue recoveries, if any					
42	Net Total (40-41)					

Petitioner

Details of OPEX

Name of LDC/

(Rs in lakh)

Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1						
2						
3						
4						
5						
6						
7						
	Total					

Petitioner

FORM-8

Calculation of Interest on Working Capital

Name of LDC:

(Rs in lakh)

Sl. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	O & M expenses excl. HR						
2	Human resource expenses						
3	NLDC charges (Applicable for RLDC only) or RLDC Charges (Applicable only for SLDCs)						
4	Receivables						
5	Total Working Capital						
6	Rate of Interest						
7	Interest on Working Capital						

Petitioner

LDC Development Fund (Projected)**Name of LDC:** _____

(Rs in lakh)

Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
Opening LDC Development Fund – Opening						
Additions in LDC development fund during the year						
Total LDC development fund						
Less: Utilization for capital expenses						
Less : Utilization for revenue expenses						
Net LDC development fund as on 31 st March of the year						
Average fund accumulated during the year						

Note: Break-up of additions and utilization shall be provided in separate sheet for each year

Petitioner

FORM 10

Other Income

Name of LDC: _____

(Rs in lakh)

Particulars	As on 31.3.2019	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
Other Income - Opening						
Add : Short term open access charges						
Add : Allocation from REC income						
Add:						
Add:						
Gross Income during the year						
Less : Utilization to meet shortfall						
Less: Use for...						
So on						
...						
Net Income as on 31 st March....						

Petitioner

[To be published in pursuance of Regulation 6]

Name of the Applicant (in Bold Letters)

(Registered Office Address)

1. The applicant above-named has made an application before the (Central Electricity Regulatory Commission, [Location] for determination of fees and charges for [Give name of the applicant].
2. The users of the [...] LDC are:
 - a.
 - b.
3. Details of tariff (Publish only applicable portion):

(Rs. in lakh)

	Tariff for the previous year	Year-wise tariff sought to be determined					
		Previous year	2019-20	2020-21	2021-22	2022-23	2023-24
[...]LDC							

4. A copy of the application made for determination of tariff is posted on the website (indicate here the address of the website).
5. The suggestions and objections, if any, on the proposals for determination of tariff contained in the application be filed by any person, including the beneficiary before **the Secretary, Central Electricity Regulatory Commission, [Address]** with a copy to the applicant within 30 days of publication of this notice.

Place_____

Name and Designation of the Authorized Signatory

Date_____

Appendix-III

Depreciation Schedule

S. No.	Asset Particulars	Depreciation Rate
A	Land under full ownership	0.00%
B	Land under lease	
(a)	for investment in the land	3.34%
(b)	For cost of clearing the site	3.34%
C	<u>Other Assets</u>	
A	Building & Civil Engineering works	
(i)	Offices and residential	[3.34%]
(ii)	Containing plant and equipment	3.34%
(iii)	Temporary erections such as wooden structures	[100.00%]
(iv)	Roads other than Kutcha roads	[3.34%]
(v)	Others	[3.34%]
B	Transformers, Kiosk, sub-station equipment & other fixed apparatus(including plant foundation)	
(i)	Transformers including foundation shaving rating of 100 KVA and over	5.28%
(ii)	Others	5.28%
C	Solar Panel/Wind Mill	5.28%
D	Lightning arrestor	
(i)	Station type	5.28%
(ii)	Pole type	5.28%
(iii)	Synchronous condenser	5.28%
E	Batteries	15.00%
(i)	Underground cable including joint boxes and disconnected boxes	5.28%
(ii)	Cable duct system	3.34%

F	Overhead lines including cable support systems	
(i)	Lines on fabricated steel operating at terminal voltages higher than 66 kV	3.34%
(ii)	Lines on steel supports operating at terminal voltages higher than 13.2 kV but not exceeding 66 kV	5.28%
(iii)	Lines on steel on reinforced concrete support	5.28%
(iv)	Lines on treated wood support	5.28%
G	Meters	5.28%
H	Self-propelled Vehicles	9.50%
I	Air Conditioning Plants	
(i)	Static	5.28%
(ii)	Portable	9.50%
J(i)	Office furniture and furnishing	6.33%
(ii)	Office equipment	6.33%
(iii)	Internal wiring including fittings and apparatus	6.33%
(iv)	Street Light fittings	5.28%
K	Apparatus let on hire	
(i)	Other than motors	9.50%
(ii)	Motors	6.33%
L	Communication equipment	
(i)	Radio and high frequency carrier system	6.33%
(ii)	Telephone lines and telephones	6.33%
M	I. T equipment	15.00%
N	Software	15.00%
O	Any other assets not covered above	5.28%

Petitioner

Appendix-IV

(In Compliance of Regulation 4)

1. **Name of the entity** (in bold letters):
2. **Registered office address:**
3. **Region in which registration is sought:**
 - i. North-eastern
 - ii. North
 - iii. East
 - iv. West
 - v. South
4. **User category:**
 - i. Generating Station
 - ii. Seller
 - iii. Buyer
 - iv. Transmission Licensee
 - v. Distribution Licensee
 - vi. Trading Licensee
 - vii. Power Exchange
 - viii. Battery Energy Storage system
 - ix. QCA / Aggregators
 - x. Others
5. **User details** (as on 31st March of last financial year):
 - i. **Category - generating Station**
 - i. Total Installed Capacity
 - ii. Maximum Contracted Capacity (MW) using ISTS
 - iii. Points of connection to the ISTS:

Sl. No.	Point of connection	Voltage level (kV)	Number of Special Energy Meters (Main) installed at this location
 - ii. **Category - Seller/Buyer/Distribution Licensee**
 - i. Maximum Contracted Capacity (MW) using ISTS
 - ii. Points of connection to the ISTS:

Sl. No.	Point of connection	Voltage level (kV)	Number of Special Energy Meters (Main) installed at this location

iii. Category – Transmission Licensee (inter-State)

i. Sub-stations:

Sl. No.	Sub-station Name	Number of transformer	Total Transformation Capacity or Design MVA handling capacity if switching Station

ii. Transmission lines: (line wise details to be given)

Sl. No.	Voltage level (kV)	Number of transmission lines	Total Circuit-Kilometers

iv. Category (Others): Please specify details.

6. Contact person(s) details for billing related to[...] LDC:

- i. Name:
- ii. Designation:
- iii. Telephone No.:
- iv. E-mail address:
- v. Postal address:

7. Other Details:

- i. PAN No.:
- ii. GST No.:
- iii. Bank Account No.:
- iv. Bank Name and Address:
- v. MICR No:

The above information is true to the best of my knowledge and belief.

Signature of Authorized Representative

Place:

Name:

Date:

Designation:

Contact number:

Appendix-V

Assessment of Key Performance Indicators for RLDC / NLDC

Name of NLDC/RLDCs: _____

Performance Year: _____

Category	Overall weightage	Sr. No.	Key Performance Indicators	Weightage
(A) Stake holder satisfaction	40	1	MoU Rating as per DPE	10
		2	Facilitate power system and market functioning <ul style="list-style-type: none"> • Power Market transaction (Collective & Bilateral), REC, ESCerts • Power System Functioning: Calculation & reporting of FRC, declaration of transmission losses, stakeholder meetings including cross border 	30
		3	Maintain system reliability <ul style="list-style-type: none"> • FDI • VDI Maintenance shutdown coordination	20
		4	Website Availability	10
		5	Information dissemination <ul style="list-style-type: none"> • ATC/TTC • Transactions scheduled 	10
		6	Preparation of accounts <ul style="list-style-type: none"> • Interconnection meter error reporting • Ancillary Services • AGC 	20
(B) Financial Prudence	20	1	Variance in Capex Utilization	40
		2	Statutory compliance – Audits	60
(C) Learning & Growth	20	1	New technology adoption / R&D	30
		2	Lessons learnt and knowledge dissemination by way of data intensive reports	30
		3	Adequacy of HR - % of certified operators among eligible operators	20
		4	Capacity Building No. of man-days per year per eligible employee FOLD Meetings/Workshops	20
(D) Internal Process	20	1	Availability of Decision Support System – SCADA	40
		2	Availability of infrastructure and amenities	30
		3	ISO Certification	10
		4	Process Documentation – Black Start, Reactive Power	20

(Calculations of specific metrics for the key performance indicators above are to be detailed in a Procedure duly prepared by the POSOCO and submit to Commission within 3 months of issue of these Regulations for approval)

Appendix-VI

Human Resource Requirement - Projection for Control Period: _____

I. Level Wise Projected Manpower

Grade	Description	Year-1	Year-2	Year-3	Year-4	Year-5
Board	Director					
E9	Executive Director					
E8	General Manager/ Sr. General Manager/ Chief General Manager					
E7	Dy. General Manager/ Sr. Dy. General Manager					
E5-E6	Manager/ Chief Manager					
E3-E4	Executive Trainee/ Asstt. Manager/ Dy. Manager					
E2	Engineer/ Officer					
NE	Supervisor/ Junior Engineer/ Workmen					
TOT-E	Total Executives					
E/NE	Ratio of Executives to Non-Executive = (TOT-E)/ (NE)					

II. Department Wise Projected Manpower

	Description	Year-1	Year-2	Year-3	Year-4	Year-5
E-RS	Executives working in rotating shifts					
E-SO	Executives in System Operation functions (Off-line)					
E-MO	Executives in Market Operation functions (Off-line)					
E-SL	Executives in System Logistics functions (off-line)					
E-OTH	Executives in Other Support functions (Off-line) (Law, HR, F&A, etc.)					
E-GS	Executives working in general shifts (E-SO+MO+SL+OTH)					
RS/GS	Ratio of Executives in Rotating Shift /					

	General Shift					
SO/TOT	Ratio of Executives (SO/Total)					
MO/TOT	Ratio of Executives (MO/Total)					
SL/TOT	Ratio of Executives (SL/Total)					
OTH/TOT	Ratio of Executives (Oth/Total)					

III. Number of personnel in Load Despatch Centre having valid certificates (as on 31st March of respective year)

S No.	Particulars	Year-1	Year-2	Year-3	Year-4	Year-5
A	Certified executives- Basic level					
B	Certified executives - Reliability Specialist					
C	Certified executives - Market Specialist					
D	Certified executives- System Logistics Specialist					
E	Certified executives - Specialist (Others)					
F	Certified executives- Management level					
G	Total number of certified executives					
H	Total number of executives					
I	Ratio of Basic to Total (A/H)					
J	Ratio of Reliability Specialist to Total (B/H)					
K	Ratio of Market Specialist to Total (C/H)					
L	Ratio of Logistics Specialist to Total (D/H)					
M	Ratio of Other Specialist to Total (E/H)					
N	Ratio of Management Specialist to Total (F/H)					

IV. Discipline wise projected Manpower

S No.	Discipline (at graduation level)	Year-1	Year-2	Year-3	Year-4	Year-5
1	Power System					
2	Electrical					
3	Renewable					
4	Communication					
5	Computer Science					
6	Public Policy					
7	Economics					
8	Commerce					
9	Statistics					
10	Law					
11	Human Resource					
12	Finance					
13	Management					
14	Others-(Specify)					

INDEX

A

Additional Capitalisation

3,40,41,52,54,62,63,68,70,72,100,101,188,196,276,352,408,427,428,501,513,537,61
1,682,847,865,866 887.

B

Bank Rate

39,40,43,44,82,92,352,393,491,492

C

Certificate

8,28,36,95,190,196,260,275,344,355,373,395,408,476,482,483,485,491,610,615,681,
790,806,832,857,861,866,872,876,883,917.

Cut-off date

7,18,62,63,241,242,243,244,245,246,247,248,249,352,355,361,362,363,364,365,366,
372,373,400,401,404, 466, 467,473,508,509,511,513,624,625,626,627,628, 630, 631,
632,633,510.

D

Date of Commercial Operation

3,8,14,24,26,27,28,29,30,31,36,37,49,52,99,102,103,107,110,136,140,147,172,212,2
18,282,306,320,348,350, 371,395,406,407,408,416,418,422, 424,426,427,428, 429,
439,440,442,443,444,445,446,447,449,450,452,454,457,458,460,481,482,483,484,
488,489,491,509,516,529,530,531,463,554,556,581,584,592,645,659,686,712,726,74
9,750,766,790,847.

Declared Capacity

9,22,125,137,467,477,545.

F

Force Majeure

11,40,42,53,59,62,63,64,100,189,373,469,495,507,600.

G

Grid Code

8,9,12,15,23,24,27,143,149,165,464,467,470,472,482,483,559,812,816,832,
837,838,839,841,851,856.

I

Interconnection Point

838.

Installed Capacity

9,14,18,19,76,87,125,136,137,163,166,204,282,284,334,336,468,471,474,481,482,483,
485,487,530,546,551,553,579,580,644,686,688,711,739,741,878,879,880,913.

L

Long Term Transmission Customer

479,491,492,493,494,497,498,527,529,561,579, 582,583,586,587,588, 810.

P

Prudence Check

3,4,20,38,41,52,56,58,62,63,64,67,69,77,84,87,90,97,98,99,100,103,104,105,179,463
,475,490,494,503,504,505,506,509,510,511,513,515,532,537,539,542,590,847,863,8
65.866,871,872,873,874.

Power Exchange

821,852,853,878,913.

Pumped Storage Hydro generating station

59,140,482,556.

R

Renewable Energy

3,55,462,802,856.

Renewable Energy Source

3,462,802.

Renewable Purchase Obligation

801,802.

Rated Voltage

476

Scheduled Energy

21,44,125, 132, 138, 139, 141, 476, 546, 558.

Small Gas Turbine Station

478

Start date or Zero Date

22,478.

Storage Type Generating Station

478

T

Truing Up

41, 42, 43, 74, 85, 87, 90, 175, 214, 216, 236, 308, 310, 327, 381, 383, 402, 424, 426, 437, 494, 495, 497, 498, 509, 527, 537, 647, 649, 714, 716, 775, 777, 863, 873, 876.

Time Block

19, 21, 143, 146, 474, 477, 539, 562, 814, 816.

Tariff Period

36, 39, 41, 42, 43, 44, 68, 74, 81, 82, 85, 87, 89, 99, 104, 105, 107, 135, 139, 196, 217, 276, 311, 339, 345, 354, 355, 403, 404, 416, 427, 489, 492, 494, 516, 523, 527, 528, 534, 531, 540, 585, 611, 650, 682, 747, 753, 866.

U

Useful Life

10, 24, 25, 50, 65, 67, 68, 77, 78, 99, 101, 104, 107, 108, 109, 183, 195, 220, 258, 312, 322, 343, 353, 354, 355, 373, 375, 390, 392, 430, 469, 479, 480, 514, 515, 516, 517, 531, 532, 585, 609, 661, 718, 728, 769, 786, 850, 871.

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