

## RAJASTHAN ELECTRICITY REGULATORY COMMISSION

### NOTIFICATION

Jaipur, \_\_\_\_, 2019

No. RERC/Secy/Reg. \_\_\_\_ - In exercise of the powers conferred on it under Section 61 read with Section 181 of the Electricity Act, 2003 (No. 36 of 2003), and all other powers enabling it in this behalf, the Rajasthan Electricity Regulatory Commission, after previous publication, hereby makes the following Regulations, namely:

#### Part I Preliminary

#### 1. Short title, Extent and Commencement

- (1) These Regulations may be called as '**Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2019**'.
- (2) These Regulations shall extend to the whole of the State of Rajasthan. These Regulations shall be applicable for determination of tariff in cases covered under these Regulations from FY 2019-20, i.e., April 1, 2019 and onwards up to FY 2023-24, i.e., March 31, 2024:

Provided that these Regulations shall not be applicable for determination of tariff of captive generating plant and plant of Renewable Energy Sources but shall be applicable for Mini & Micro Hydel Plants:

Provided further that for all purposes including the review matters pertaining to the period till FY 2018-19, i.e., upto March 31, 2019, the issues related to determination of tariff shall be governed by Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2004, Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2009, or Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2014, including amendments thereto, as the case may be.

- (3) These Regulations shall come into force from the date of publication of these Regulations in the official gazette.

#### 2. Definitions

a) In these Regulations, unless the context otherwise requires:

- (1) "**Accounting Statements**" means for each financial year, the following statements, namely:
  - (i) balance sheet, prepared in accordance with the form contained in the Companies Act, 2013, as amended from time to time;
  - (ii) profit and loss statement, complying with the requirements contained in the Companies Act, 2013, as amended from time to time;
  - (iii) cash flow statement, prepared in accordance with the applicable Accounting Standards of the Institute of Chartered Accountants of India, as amended from time to time;
  - (iv) report of the statutory auditors';

(v) reconciliation statement, duly certified by Statutory Auditors, showing the reconciliation between the total expenses, revenue, assets and liabilities, of the entity as a Company and the expenses, revenue, assets and liabilities, separately for each business regulated by the Commission and unregulated business operations, wherever applicable;

(vi) Cost records prescribed by the Central Government under the Companies Act, 2013, amended from time to time;

together with notes thereto, and such other supporting statements and information as the Commission may direct from time to time:

Provided further that in case of any local authority engaged in the business of distribution of electricity, the Accounting Statement shall mean the items, as mentioned above, prepared and maintained in accordance with the relevant Acts or Statutes as applicable to such local authority;

Note: Above referred Accounting Statements including Reconciliation statements have to be maintained separately for each Generating Station, separately for SLDC and separately for each business regulated by the Commission;

(2) **"Act"** means the Electricity Act, 2003 (36 of 2003), including amendments thereto;

(3) **"Allocation Statement"** means for each financial year, a statement in respect of each of the separate businesses of the Licensee/Generating Company and further in case of Generating Company for each Generating Station, showing the amounts of any revenue, cost, asset, liability, reserve or provision, which has been either:

(i) charged from or to each such separate business together with a description of the basis of that charge; or

(ii) determined by apportionment or allocation between the Licensed/Regulated Business and every other separate business of the Licensee/Generation Company, together with a description of the basis of the apportionment or allocation:

Provided that such allocation statement in respect of a Generating Station shall be maintained in a manner so as to enable tariff determination, stage-wise, Unit-wise and/or for the whole Generating Station;

(4) **"Aggregate Revenue Requirement"** means the requirement of the Licensee or Generating Company for recovery, through tariffs, of allowable expenses and return on equity capital pertaining to its Licensed/Regulated Business, in accordance with these Regulations;

(5) **"Applicant"** means a Licensee or Generating Company or SLDC who has made an application/Petition for determination of Aggregate Revenue Requirement and/or tariff or an application for truing up in accordance with the Act and these Regulations and includes a Licensee or Generating Company or SLDC whose tariff is the subject of a review by the Commission either suo-motu or on a petition filed by any interested or affected person or as part of truing up;

(6) **"Auxiliary Energy Consumption"** in case of a Generating Station or Unit means the quantum of energy consumed by auxiliary equipments of the Generating Station or Unit and transformer losses within the Generating Station or Unit, and shall be expressed as a percentage of the sum of gross energy generated at the generator terminals of all the Units of the Generating Station:

Provided that 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, which shall be metered separately;

(7) **"Availability"** shall mean

(a) In relation to a Thermal Generating Station for any period means the average of the daily average declared capacities as certified by SLDC for all the days during that period expressed as a percentage of the installed capacity of the Generating

Station minus normative auxiliary consumption in MW, as specified in these Regulations, and shall be computed in accordance with the following formula:

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

where , N = number of time blocks in the given period

DC<sub>i</sub> = Average Declared Capacity in MW for the i<sup>th</sup> time block in such period

IC = Installed Capacity of the Generating Station in MW

AUX<sub>n</sub> = Normative Auxiliary Consumption in MW, expressed as a percentage of gross generation

(b) in relation to a transmission system for a given period means the time in hours during that period in which the transmission system is capable of transmitting electricity at its rated voltage to the delivery point expressed in percentage of total hours in the given period;

(c) The Annual Actual Availability during the year shall be computed by Generating Company for each Generating Station/Unit(s) or Transmission Licensee, as applicable and certified by SLDC.

- (8) **“Bank Rate”** shall mean bank rate of Reserve Bank of India as on April 1 of the relevant year;
- (9) **“Base Rate”** shall mean the one-year Marginal Cost of Funds-based Lending Rate (‘MCLR’) as declared by the State Bank of India from time to time;
- (10) **“Beneficiary”** shall mean  
 (a) in relation to Generating Station/unit(s) of a Generating Company, a person sharing the capacity charges under these Regulations or purchaser of electricity generated at such Station whose Tariff is determined under these Regulations;  
 (b) in relation to a Transmission Licensee and SLDC, the Distribution Licensees;  
 (c) in relation to a Distribution Licensee, the consumers;
- (11) **“Change in Law”** means occurrence of any of the following events:  
 (i) the enactment, bringing into effect or promulgation of any new Indian law;  
 (ii) adoption, amendment, modification, repeal or re-enactment of any existing Indian law; or  
 (iii) change in interpretation of any Indian law by a competent Court, Tribunal or Indian Governmental Instrumentality, which is the final authority under Indian law for such interpretation or application; or  
 (iv) 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;
- (12) **“Commission”** means the Rajasthan Electricity Regulatory Commission;
- (13) **“Control Period”** means a period during which the principles and norms for determination of revenue requirement and tariff specified in these Regulations shall remain valid;
- (14) **“Conventional Power Plants”** means lignite, coal or gas based thermal, or hydro Generating Stations of 25 MW and above;
- (15) **“Cut-off date”** means the last day of the calendar month after three years from the date of commercial operation of the project:  
 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;
- (16) **“Day”** means a calendar day consisting of 24 hours period starting at 0000 hour;

(17) **“Date of Commercial Operation or COD”** means

- (i) in case of generating unit(s), means the date declared by the generator
- a) in relation to a Unit, after demonstrating the Maximum Continuous Rating (MCR) or Installed Capacity (IC) through a successful trial run for 72 hours after notice to the Distribution Licensees, and

- b) in relation to the Generating Station, the date of commercial operation of the last Unit of the Generating Station:

Provided that where the Distribution Licensees 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 Distribution Licensees, and scheduling shall commence from 0000 hrs after acceptance of the test results by the Distribution Licensees:

Provided further that the Generating Company shall certify that the Generating Station meets the technical standards specified by the Central Electricity Authority and the State Grid Code;

- (ii) in case of a Transmission Licensee means the date of charging the transmission line or substation of transmission Licensee to its rated voltage level or seven days after the date on which it is declared ready for charging by the transmission Licensee, but not able to charge for reasons not attributable to it;

- (iii) in case of a Distribution Licensee, means the date of charging the electric line or substation of a Distribution Licensee to its rated voltage level or seven days after the date on which it is declared ready for charging by the Distribution Licensee, but not able to charge for reasons not attributable to it or suppliers /contractors:

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

(18) **“Daily Capacity Index”** means the declared capacity expressed as a percentage of the maximum available capacity for the day and shall be calculated in accordance with the following formula:

Daily Capacity Index = Declared Capacity (MW) x 100 / Maximum Available Capacity (MW)

Daily Capacity Index shall be limited to 100% and the term “Capacity Index” for any period shall be the average of the daily capacity indices calculated as above, for such period;

(19) **“Declared Capacity”** means

- (a) for a Thermal Generating Station, the capability of the Generating Station to deliver ex-bus electricity in MW declared by such Generating Station in relation to any time block of the day or whole of the day, duly taking into account the availability of fuel:

Provided that in case of a gas turbine Generating Station or a combined cycle Generating Station, the Generating Station shall declare the capacity for Units and Modules on gas fuel and liquid fuel separately, and these shall be scheduled separately. Total declared capacity and total scheduled generation for the

- Generating Station shall be the sum of the declared capacity and scheduled generation for gas fuel and liquid fuel for the purpose of computation of Availability and Plant Load Factor, respectively;
- (b) for run-of-river hydro power Generating Stations with pondage and storage-type power stations, the ex-bus capacity in MW expected to be available from the Generating Station over the peaking hours of the next day, as declared by the Generating Station, taking into account the availability of water, optimum use of water and availability of machines and for this purpose, the peaking hours shall not be less than three (3) hours within a twenty-four (24) hour period;
  - (c) for run-of-river hydro power Generating Stations without pondage, the ex-bus capacity in MW expected to be available from the Generating Station during the next day, as declared by the Generating Station, taking into account the availability of water, optimum use of water and availability of machines;
- (20) **"De-capitalisation"** for the purpose of 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;
  - (21) **"Deemed Licensee"** means a person deemed to be a Licensee under Section 14 of the Act;
  - (22) **"Design Energy"** in relation to a hydro power Generating Station means the quantum of energy, which could be generated in a 90 per cent dependable year with 95 per cent installed capacity of the Generating Station;
  - (23) **"Distribution Business"** means the business of operating and maintaining a distribution system for supplying electricity in the area of supply of the Distribution Licensee;
  - (24) **"Distribution Wire Business"** means the business of operating and maintaining a distribution system for wheeling of electricity in the area of supply of the Distribution Licensee;
  - (25) **"Existing Generating Unit/Station"** means a generating Unit/Station, which has achieved COD prior to 01.04.2019;
  - (26) **"Expected Revenue from Tariff and Charges"** means the revenue estimated to accrue to the Licensee/Generating Company/SLDC from the Licensed/Regulated Business at the prevailing tariffs and from regulated charges;
  - (27) **"Force Majeure Event"** means, with respect to any party, any event or circumstance, which is not within the reasonable control of, or due to an act or omission of, that party and which, by the exercise of reasonable care and diligence, that party is not able to prevent, including, without limiting the generality of the foregoing:
    - (a) acts of God, including but not limited to lightning, storm, earthquakes, flood, drought and natural disaster;
    - (b) strikes, lockouts, go-slow, bandh or other industrial disturbances;
    - (c) acts of public enemy, wars (declared or undeclared), blockades, insurrections, riots, revolution, sabotage, vandalism and civil disturbance;
    - (d) unavoidable accident, including but not limited to fire, explosion, radioactive contamination and toxic chemical contamination;
    - (e) any shutdown or interruption of the grid, which is required or directed by the State or Central Government or by the Commission or the State Load Despatch Centre; and any shut down or interruption, which is required to avoid serious and immediate risks of a significant plant or equipment failure;
  - (28) **"Financial Year"** means a period commencing on 1<sup>st</sup> April of a calendar year and ending on 31<sup>st</sup> March of the subsequent calendar year;
  - (29) **"Generation Business"** means the business of production of electricity from a Generating Station or Units thereof for the purpose of giving supply to any beneficiary or enabling a supply to be so given;
  - (30) **"Generation Tariff"** means tariff for ex-bus supply of electricity from a Generating Station or Units thereof;

- (31) **"Gross Calorific Value"** or "GCV" in relation to a Thermal Generating Station means the heat produced in kilocalories 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;
- (32) **"GCV as fired"** means the GCV of coal or lignite computed before feeding coal or lignite into bunkers of the generating unit for power generation;
- (33) **"GCV as received"** means the GCV of coal or lignite 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 conveyor and ship in accordance with the IS 436 (Part-1/ Section 1)- 1964:

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

Provided further that samples of coal or lignite 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 advanced technology for collection, preparation and testing of samples for measurement of GCV in a fair and transparent manner;

- (34) **"Gross Station Heat Rate"** means the heat energy input in kilocalories required to generate one kWh of electrical energy at generator terminals;
- (35) **"Indian Government Instrumentality"** means the Government of India, State Government and any Ministry or Department or Board or Agency controlled by Government of India or State Government where the project is located, or regulatory or quasi-judicial authority constituted under relevant statutes in India;
- (36) **"Infirm power"** means electricity injected into the grid prior to the commercial operation of a Unit of the Generating Station;
- (37) **"Installed Capacity"** means the summation of the name plate capacities of all the Units of the Generating Station or the capacity of the Generating Station (reckoned at the generator terminals) as approved by the Commission from time to time;
- (38) **"Interconnection Point"** means a point at EHV substation of transmission Licensee or HV sub-station of Distribution Licensee, as the case may be, where the electricity produced from the Generating Station is injected into the Rajasthan Grid or the point of interconnection between the transmission network and distribution network;
- (39) **"Licensee"** means a person who has been granted a licence under Section 14 of the Act and includes a person deemed to be a Licensee under Section 14 of the Act;
- (40) **"Maximum Continuous Rating" (MCR)** in relation to a Unit of the 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;
- (41) **"Maximum Available Capacity"** for hydro stations means the following:  
(a) Run-of-river power station with pondage and storage type power stations:  
The maximum capacity in MW, the Generating Station can generate with all Units running, under the prevailing conditions of water levels and flows, over the peaking hours of next day:  
Provided that the peaking hours for this purpose shall not be less than 3 hours within a 24 hours period.

(b) run-of-river power stations without pondage:

The maximum capacity in MW, the Generating Station can generate with all Units running, under the prevailing conditions of water levels and flows over the next day;

- (42) **“New Generating Unit/Station”** means a generating Unit/Station which achieves COD on or after 01.04.2019;
- (43) **“Non-Tariff Income”** means income relating to the regulated business other than from tariff, excluding any income from Other Business and, in case of the Retail Supply Business of a Distribution Licensee, excluding income from wheeling and receipts on account of cross-subsidy surcharge and additional surcharge on charges of wheeling;
- (44) **“Operation and Maintenance expenses” or “O&M expenses”**  
 (a) for Generating Station/unit(s) means the expenditure incurred on operation and maintenance of the project or part thereof of Generating Station/unit(s), and includes the expenditure on manpower, repairs, spares, consumables, water charges, Petition filing fees and other overheads but excludes fuel expenses;  
 (b) for a Licensee means the expenditure incurred on operation and maintenance by the Transmission Licensee or Distribution Licensee, and includes the expenditure on manpower, repairs, spares, consumables, Petition filing fees, licence fee and other overheads;  
 (c) for SLDC means the expenditure incurred on operation and maintenance by SLDC, and includes the expenditure on manpower, repairs, spares, consumables, AMC and other service contracts, Petition filing fees, and other overheads;
- (45) **“Other Business”** means any business engaged in by a Transmission Licensee under Section 41 of the Act or by a Distribution Licensee under Section 51 of the Act for optimum utilization of the assets of such Transmission Licensee or of such Distribution Licensee;
- (46) **“Plant Load Factor”**, for a given period, means the total sent-out energy during such period, expressed as a percentage of sent out energy corresponding to installed capacity in that period and shall be computed in accordance with the following formula:

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

where,

N = number of time blocks in the given period;

AG<sub>i</sub> = Actual ex-bus Generation in MW for the i<sup>th</sup> time block in such period;

IC = Installed Capacity of the Generating Station in MW;

AUX<sub>n</sub> = Normative Auxiliary Consumption in MW, expressed as a percentage of gross generation;

The Annual Actual Plant Load Factor during the year shall be computed by Generating Company and certified by SLDC.

- (47) **“Project”** means a Generating Station or the transmission system, as the case may be, and in case of a hydro Generating Station includes all components of generating facility such as penstocks, head and tail works, main and regulating reservoirs, dams and other hydraulic works, intake water conductor system;
- (48) **“Primary Energy”** means the quantum of energy generated annually from hydel station up to the design energy;
- (49) **“Rated Voltage”** means the manufacturer’s design voltage at which the transmission system or distribution system is designed to operate or such lower voltage at which the line is charged, for the time being, in consultation with Users;
- (50) **“Regulated Business”** means any electricity business, which is regulated by the Commission;
- (51) **“Renewable Energy Sources”** for the purpose of these Regulations means and includes the non-conventional renewable generating sources such as mini & micro

- hydel, wind and solar including its integration with combined cycle, biomass, bio fuel cogeneration, urban/municipal waste and other such sources as approved by the Ministry of New & Renewable Energy, Government of India, from time to time;
- (52) **"Retail Supply Business"** means the business of sale of electricity by a Distribution Licensee to his consumers in accordance with the terms of his licence;
- (53) **"Run-of-river Generating Station"** means a hydro Generating Station, which does not have upstream pondage;
- (54) **"Saleable Primary Energy"** means the quantum of primary energy available for sale (ex-bus);  
**"Saleable Secondary Energy"** means the quantum of secondary energy available for sale (ex-bus);
- (55) **'Scheduled Commercial Operation Date or Scheduled COD'** shall mean the date(s) of commercial operation of a Generating Station or generating unit thereof or transmission system or element thereof as decided by the Commission at time of approval of capital cost based on date of commercial operation as indicated in the Investment Approval or as agreed in power purchase agreement or transmission service agreement as the case may be or any other document submitted by the Generating Company or the Licensee;
- (56) **"Scheduled Generation" or 'SG'** at any time or for any period or time block means schedule of generation in MW ex-bus given by the State Load Despatch Centre;

Note:

For the 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) **"Scheduled Energy"** means the quantum of energy scheduled by the State Load Despatch Centre to be injected into the grid by a Generating Station for a given time period;
- (58) **"Secondary Energy"** means the quantum of energy generated annually in excess of the design energy at the hydel Generating Station;
- (59) **"State Load Despatch Centre" or "SLDC"** means the centre established by the State Government for the purpose of exercising the powers and discharging the functions under Section 31 of the Act;
- (60) **"State Power Committee" (SPC)** means the State Power Committee set up under the grid code specified by the Commission;
- (61) **"Statutory Auditor"** means an auditor appointed by a Generating Company or a Licensee, in accordance with the provisions of the Companies Act, 2013 as amended from time to time or any other law for the time being in force;
- (62) **"Statutory Charges"** comprise taxes, cess, duties, royalties and other charges levied through Acts of the Parliament or State Legislatures or by Indian Government Instrumentality under relevant statutes;
- (63) **"Storage type power station"** means a hydro power Generating Station associated with large storage capacity to enable variation in generation of electricity according to demand;
- (64) **"Tariff"** means the schedule of charges for generation, transmission, wheeling and supply of electricity together with terms and conditions for application thereof;



- (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;
- (66) **“Transaction of Business Regulations”** means the Rajasthan Electricity Regulatory Commission (Transaction of Business) Regulations, 2005, as amended from time to time;
- (67) **“Transmission Business”** means the business of establishing or operating transmission system;
- (68) **“Transmission Loss”** means the energy losses in the transmission system of a transmission Licensee including auxiliary power consumption in the sub-station for the purpose of air-conditioning, lighting, battery charging, accessories of sub-station equipments, etc., and shall be accounted for separately;
- (69) **“Transmission Service Agreement”** means the agreement, contract, memorandum of understanding, or any such covenants, entered into between the transmission Licensee and the user of the transmission service/lines;
- (70) **“Transmission System”** means a line or group of lines with or without associated sub-station, and includes equipment associated with transmission lines and sub-stations;
- (71) **“Unit”** in relation to a Generating Station means electric generator, its prime mover, and auxiliaries and in relation to a combined cycle Thermal Generating Station includes combustion turbine – generators, associated waste heat recovery boilers, connected steam turbine – generator and auxiliaries;
- (72) **“Unloading point”** means the point within the premises of the coal, 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 Generating Station, transmission system and distribution 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 (including GIS)            | :25 years |
| (d) Hydro Generating Station                         | :40 years |
| (e) Transmission line (including HVAC and HVDC)      | :35 years |
| (f) Distribution lines and Distribution System       | :35 years |
- (74) **“User”** means a Licensee, a Generating Company, a person who has set up a captive generating plant, or a consumer availing open access, utilizing the transmission system of a transmission Licensee or distribution system of a Distribution Licensee;
- (75) **“Wheeling”** means the operation whereby the distribution system and associated facilities of a transmission Licensee or Distribution Licensee, as the case may be, are used by another person for the conveyance of electricity on payment of charges to be determined under Section 62 of the Act;
- (76) **“Year”** means financial year ending on 31st March, and
- i) “Current Year” shall mean the year in which the petition for determination of tariff is required to be filed,
  - ii) “Previous Year” shall mean the year immediately preceding the current year,
  - iii) “Ensuing Year” shall mean the year next following the current year,
- b) 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.
- c) Abbreviations used in the Regulations shall have the meaning as stated in Abbreviations.

### **3. Scope of Regulations and extent of application**

(1) These Regulations shall apply in respect of the following cases:

- a) Supply of electricity by a Generating Company to a Distribution Licensee (excluding supply of electricity by captive generating plant and Renewable Energy Sources but includes Mini & Micro hydel plants):

Provided that where the Commission is of the opinion that a shortage of supply of electricity exists, it may fix the minimum and maximum ceiling of tariff for sale or purchase of electricity in pursuance of an agreement, entered into between a Generating Company and a Distribution Licensee or between Distribution Licensees, for a period not exceeding one year to ensure reasonable prices of electricity;

- b) Intra-State transmission of electricity;

- c) Intra-State Wheeling of electricity;

- d) For recovery of SLDC Expenses;

- e) Retail sale of electricity:

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

- f) Surcharge in addition to the charges for wheeling under first proviso to sub-section (2) of Section 42 of the Act, for availing open access;

- g) Additional surcharge on the charges for wheeling under sub-section (4) of Section 42 of the Act, for availing open access;

(2) Notwithstanding anything contained in these Regulations, the Commission shall adopt the tariff if such tariff has been determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government, as envisaged under Section 63 of the Act:

## **Part II General Principles**

### **4. Control Period**

The Control Period under these Regulations shall be of five (5) financial years starting from April 1, 2019.

### **5. Tariff Determination and Tariff Principles**

(1) The Commission shall determine the tariff and charges for matters covered under Regulation 3, on an application of Generating Company or the Licensee or SLDC, as the case may be, during the control period starting from 1.4.2019 in accordance with relevant provisions of these Regulations.

(2) The Tariff principles shall apply to applications made for determination of tariff for a Generating Company, Transmission Licensee, SLDC, and Distribution Licensee.

- (3) The Tariff principles shall be based on the following elements, for calculation of Aggregate Revenue Requirement and expected revenue from tariff and charges of a Generating Station/unit (s), Transmission Licensee, SLDC and Distribution Licensee:
- (i) The applicant shall submit the forecast of Aggregate Revenue Requirement, expected revenue from existing tariffs and proposed tariff for the ensuing year and the Commission shall determine the ARR & tariff for the ensuing year of the Generating Station/unit (s), Transmission Licensee, SLDC, and Distribution Licensee:
  - (ii) Truing up of previous year's expenses and revenue based on Audited Accounts vis-à-vis the approved forecast and categorisation of variation in performance as those caused by factors within the control of the applicant (controllable factors) and those caused by factors beyond the control of the applicant (uncontrollable factors), shall be undertaken by the Commission;
  - (iii) The mechanism for pass-through of approved gains or losses on account of uncontrollable factors as specified by the Commission in these Regulations;
  - (iv) The mechanism for pass-through of approved gains or losses on account of controllable factors as specified by the Commission in these Regulations;
  - (v) Annual tariff determination for Generating Station/unit(s), Transmission Licensee, SLDC and Distribution Licensee, for each financial year within the Control period, based on the approved forecast and results of the truing up exercise:
- (4) The Generating Company or Licensee or SLDC shall have an option for filing the Petition for Multi Year Tariff determination at the time of filing first ARR/Tariff Petition after notification of these Regulations. If the Generating Company or Licensee or SLDC has opted for Multi Year Tariff determination, it shall submit the forecast of Aggregate Revenue Requirement, expected revenue from existing tariffs and proposed tariff for each year of the Control Period and the Commission shall determine the ARR & tariff for each year of the Control Period:

Provided that if the Generating Company or Licensee or SLDC has opted for Multi Year Tariff Determination, it shall submit the Petition for truing up of ARR for the previous year during each year of the Control Period and may submit the Petition to re-determine the ARR and Tariff for ensuing year based on truing up of previous year.

#### **6. Filing under MYT Control Period**

- (1) Every Generating Company or Licensee or SLDC, latest by 30<sup>th</sup> November of each year, shall file the following applications during the Control Period:
- a) Petition for approval of ARR and determination of tariff for ensuing year
  - b) Petition for Truing up of ARR for the previous year:

Provided that Truing up for years of the previous MYT Control Periods shall be carried out under respective Tariff Regulations:

Provided further that application for approval of ARR and determination of tariff for the first year of the Control Period, i.e., FY 2019-20 by every Generating Company in respect of each Generating Station/unit(s), Licensee and SLDC shall be filed within four weeks of notification of these Regulations in the official gazette:

Provided further that in case the Generating Company or Licensee or SLDC has opted for Multi Year Tariff Determination, it shall file the Multi Year Tariff Petition for approval of ARR and determination of tariff for each year of the Control Period within four weeks of notification of these Regulations in the official gazette.

Provided further that for the first year of the Control Period, i.e., FY 2019-20, the Commission may extend the applicable tariff of FY 2018-19 for a period not exceeding six months by a separate order on an interim basis, subject to adjustment as per the Tariff Order issued by the Commission under these Regulations.

#### **7. Specific Trajectory for Certain Variables**

- (1) The Commission may stipulate a trajectory for the Control Period for certain variables including but not limited to transmission losses, distribution losses and collection efficiency, having regard to the past performance.
- (2) The trajectory stipulated by the Commission in accordance with these Regulations shall be incorporated by the applicant in his forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges in accordance with Regulation 11.

#### **8. Truing Up**

- (1) Aggregate Revenue Requirement and expected revenue from tariff and charges in respect of each of their Generating Station/unit(s) of Generating Companies, Licensees and SLDC shall be subject to truing up of expenses and revenue during the Control Period in accordance with these Regulations.
- (2) The Generating Company or Licensee or SLDC shall make an application for truing up of expenses and revenue of the previous year, within time limit specified in these Regulations:

Provided that the Generating Company or Licensee or SLDC, as the case may be, shall submit to the Commission information in such form as may be stipulated by the Commission from time to time by a separate order, together with the Accounting Statements, Directors Report, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges.

- (3) The scope of the truing up shall be a comparison of the performance of each of their Generating Station/unit(s) of Generating Company or Licensee or SLDC with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise the following:
  - a) A comparison of the audited performance of the applicant for the previous financial year with the approved forecast for such previous financial year and truing up of expenses and revenue subject to prudence check;
  - b) Computation of the gains and losses on account of controllable and uncontrollable factors for the previous year;
  - c) The resultant revenue gap/surplus shall be adjusted as per the order of the Commission;
  - d) Review of compliance of the directives issued by the Commission from time to time;
  - e) Other relevant details, if any.

- (4) Upon completion of the truing up, the Commission shall attribute any variations, for variables specified under this Regulation, to factors within the control of the applicant (controllable factors) or to factors beyond the control of the applicant (uncontrollable factors).
- (5) Upon completion of the truing up, the Commission shall pass an order recording the approved aggregate gain or loss to the Generating Company or Licensee or SLDC on account of controllable and uncontrollable factors and the mechanism by which the Generating Company or Licensee or SLDC shall pass through such gains or losses in accordance with these Regulations.

#### **9. Gains and Losses on account of Uncontrollable and Controllable factors**

- (1) The "uncontrollable factors" shall comprise the following factors which were beyond the control of, and could not be mitigated by, the applicant, as determined by the Commission:
  - a) Force Majeure events;
  - b) Change in law, judicial pronouncements and Orders of the Central Government, State Government or Commission;
  - c) Economy wide influences such as unforeseen changes in inflation rate, taxes and statutory levies;
  - d) Variation in fuel cost on account of variation in coal, oil and all primary-secondary fuel prices;
  - e) Variation in power purchase expenses for the Distribution Licensees;
  - f) Variation in freight rates; and
  - g) Variation in number of consumers or mix of consumers or quantities of electricity supplied to the consumers.
- (2) Some illustrative variations or expected variations in the performance of the applicant which may be attributed by the Commission to controllable factors include, but are not limited to, the following:
  - a) Variations in transmission losses, distribution losses and collection efficiency;
  - b) Variations in performance parameters such as Station Heat Rate, Coal Transit Losses, Auxiliary Consumption, Secondary Fuel Oil consumption, etc;
  - c) Variation in Rate of Interest on working capital requirement; and
  - d) Variation in operation & maintenance expenses.

The approved aggregate gain or loss to the Generating Company or Licensee or SLDC on account of uncontrollable factors shall be allowed as an adjustment in the tariff of the Generating Company or Licensee or SLDC over such period as may be stipulated in the Order of the Commission passed under these Regulations.

- (3) Gain or loss to the Generating Company or Licensee or SLDC on account of controllable factors shall be retained or borne by the Generating Company or Licensee, as the case may be, except in case of the following:
  - a) Interest on working capital, which shall be as per Regulation 27;
  - b) Station Heat Rate, Auxiliary Consumption, and Secondary fuel oil consumption, which shall be as per Regulation 56 and
  - c) Distribution loss, which shall be as per Regulation 75.
- (4) Nothing contained in sub-Regulation (3) above shall apply in respect of any gain or loss arising out of variations in the price of fuel and/or rate of power purchase, which shall be dealt with as specified in Regulation 88.

## 10. Periodicity of tariff determination

- (1) The Commission shall determine the tariff of Generating Station/Unit(s) of Generating Company, except Captive Generating Plants and plants of Renewable Energy Sources, or Licensee or SLDC covered under the tariff principles for each financial year during the Control Period, at the commencement of such financial year, having regard to the following:
  - a) The MYT principles specified under these Regulations;
  - b) In case of Generating Company and Licensee or SLDC, the approved forecast of aggregate revenue requirement and expected revenue from tariff and charges for such financial year(s);
  - c) Impact of truing up for previous financial year; and
  - d) Approved gains and losses to be duly adjusted in tariffs, following the truing up of expenses and revenue.

Provided further that in case the Generating Company or Licensee or SLDC has opted for Multi Year Tariff Determination, the Commission shall determine the ARR and Tariff for each financial year of the Control Period as a part of approval of Multi Year Tariff Petition

- (2) The tariff for a Generating Station/Unit(s) of Generating Company or Licensee or SLDC shall ordinarily be determined not more than once in a year, except in case of adjustment of fuel cost and/or rate of power purchase, wherever applicable.

## 11. Petition for approval of ARR and determination of tariff

- (1) The applicant shall submit the forecast of Aggregate Revenue Requirement, expected revenue from existing tariff and proposed tariff accompanied by fees applicable. The format for furnishing information for calculating expected revenue and expenditure and for determining tariff shall be as laid down by the Commission from time to time by a separate order:
- (2) The applicant shall develop the forecast of Aggregate Revenue Requirement using assumptions relating to the behaviour of individual variables that comprise the Aggregate Revenue Requirement during the year.
- (3) The applicant shall develop the forecast of expected revenue from tariff and charges based on the following:
  - a) In the case of a Generating Company, estimates of capacity allocated to Distribution Licensees and expected energy generation by each Unit/Station for ensuing financial year within the Control Period;
  - b) In the case of a Transmission Licensee, estimates of transmission capacity agreed/contracted by the Users of the transmission system and expected energy to be transmitted for ensuing financial year within the Control Period;
  - c) In case of SLDC, estimates of operating charges for ensuing financial year within the Control Period;
  - d) In the case of a Distribution Licensee, estimates of quantum of electricity supplied to consumers and to be wheeled on behalf of Distribution System Users for ensuing financial year within the Control Period;
  - e) Prevailing tariffs as on the date of making the application.
- (4) The information for the previous year should be based on audited accounts and in case audited accounts for previous year are not available, audited accounts for the

immediately preceding previous year should also be filed along with unaudited accounts for the previous year.

- (5) The petition shall include the following:
- a) A statement of the current tariff and all applicable terms and conditions and expected revenue from the current tariff for the ensuing year or the period for which the tariff is to be determined;
  - b) A statement containing full details of subsidy received, or due from the State Government, the consumers to whom it is directed, and showing how the subsidy is reflected in the current and proposed tariff applicable to those consumers. This statement shall also include the tariff calculated without consideration of the subsidy for those consumers. The subsidy calculations shall also compare the situation for the period for which the tariff is to be implemented;
  - c) A statement of the estimated change in annual revenues that would result from the proposed tariff changes in the period in which they are to be implemented.
  - d) The annual statement of accounts and annual reports including Director's report & statistics, along with an account of its activities during the current, previous year and ensuing year. The report of activities will also indicate targets and achievements in respect of various performance parameters;
  - e) In case of a Distribution Licensee, if the proposed tariff is to be introduced after the start of a financial year, a statement of the proportion of revenue expected and quantities of electricity supplied under each proposed tariff modification during the remaining months of the financial year shall be included;
  - f) In case of a Distribution Licensee, detailed calculations of voltage-wise cost of supply, exclusive of external subsidies and cross subsidies in respect of each category of consumer;
  - g) A statement showing calculations of the amount of cross subsidy in the existing tariff and in the proposed tariff;
  - h) An explanatory note giving the rationale for the proposed tariff changes;
  - i) If the Licensee is engaged in any other Business, as specified under Regulation 39, the Licensee shall submit the following information:
    - (1) Name and description of all Other Business that the Licensee is engaged in;
    - (2) For each such Other Business, amount of revenue generated in the previous year, estimated during the current year and projected for the ensuing year;
    - (3) Assets of Licensed business used by the Licensee to generate the above revenue;
    - (4) Expenses incurred to generate the above revenue, separately for each Other Business;
    - (5) Whether these expenses have already been included in the ARR of the Licensee? Fully or partly? If partly, proportion and basis of apportionment to be submitted.
  - j) Any other information, as required by the relevant licence or specified by the Commission.
- (6) If a person holds more than one licence and /or is deemed to be a Licensee for more than one area of distribution or transmission, he shall submit separate calculations as above in respect of each licence or area of transmission or distribution. Similarly, a Generating Company shall submit Generating Station-wise calculations.
- (7) A Distribution Licensee owning and operating a Generating Station shall maintain and submit separate accounts of generation, its licensed business, and other business.
- (8) Petition for determination of transfer price or landed price of fuel

- a) Any person who owns or is allotted captive mine or is given land use rights for mining for fuel supply to thermal power plant, may file a petition before the Commission for determination of fuel transfer price at mine mouth if it is not determinable by the Government or Government approved mechanism or by fuel regulator. The petition shall contain salient features of the project along with approved mining plan and other requisite information e.g. annual mining capacity, mine reserve, period of availability of fuel, washing/ beneficiation plan, financial package, performance parameters, reference price levels, amortization of initial costs, etc.
  - b) Petition may also be filed for provisional determination of transfer price at mine mouth, before taking up mining. Such provisional determination shall be the guiding factor for determination of final transfer price.
- (9) In case the Distribution Licensee does not file petition under these Regulations within three months of stipulated date, the Commission may, on its own initiate suo-motu proceedings for tariff determination;

Provided that the tariff determined for a particular financial year of a Control Period shall remain applicable only till end of such financial year, unless otherwise the Commission approves the continuation of such Tariff for subsequent financial years.

- (10) Tariff petitions will be submitted in English and shall be accompanied by its Hindi version or vice versa. Soft copy of the Tariff Petitions including working spreadsheets with formulas, shall also be submitted to the Commission.

## **12. Orders by Commission**

- (1) The Commission, after the petition has been registered as per Regulation 32 of RERC (Transaction of Business) Regulations, 2005, as amended from time to time, may require the Licensee or Generating Company to furnish:
  - a) any further information, particulars and documents as the Commission may consider appropriate to enable the Commission to assess the Applicant's calculations; or
  - b) A revised petition, if the Commission does not consider the Applicant's calculation to be in accordance with the provisions of these Regulations.
- (2) After receipt of information or otherwise, the Commission may make appropriate orders regarding initiation of proceedings in accordance with the provisions of the Rajasthan Electricity Regulatory Commission (Transaction of Business) Regulations, 2005, as amended from time to time.
- (3) The Applicant shall within the time specified by the Commission publish the salient features of the Petition, in two leading daily newspapers, one Hindi and one English, having large circulation in its area of supply and in case of a Generating Company, having large circulation in the State in the manner as indicated by the Commission. The Commission may ask the Applicant to publish additional information, if required and the Applicant can also add to the information to be published.
- (4) A Licensee or Generating Company or SLDC shall submit to the Commission such additional information as the Commission may require, from time to time.
- (5) Thereafter, the Commission will determine the ARR and the tariff as per provisions of the Act and these Regulations. The tariff so determined by the Commission shall be without considering the subsidy commitment by the State Government. The Commission will also determine the subsidized tariff arrived at after considering the subsidy commitment of the State Government given in advance for the categories of consumers indicated.



### **13. Subsidy by the State Government**

- (1) If the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the Commission, the State Government shall pay in advance the amount to compensate the Licensee/ person affected by the grant of subsidy in the manner specified in this Regulation.
- (2) If the subsidy amount is more than Rs 5 Crore, the payment of subsidy may be done on monthly basis while annual payment of subsidy shall be done if the amount is less than Rs 5 Crore.

### **14. Publication of tariff**

- (1) The Distribution Licensee, within the time stipulated in the order of the Commission, shall publish the salient features of tariff, in two daily newspapers, one Hindi and one English having large circulation in its area of supply. The tariff shall come into force from the date stipulated in the Order only after such publication and shall remain in force until any amendment to the tariff is approved by the Commission and published by the Distribution Licensee.
- (2) The Generating Company and Transmission Licensee or SLDC, within 15 days from the date of Order, shall publish the salient features of tariff on its website.

### **15. Communication of tariff orders**

The Commission shall, within seven days of making the order, send a copy of the order to the Government of Rajasthan, the Central Electricity Authority and applicant and upload the order on its website. The Commission shall also make available copy of the said order to any person on payment of a fee fixed by the Commission.

## **Part III Financial principles for computing costs and return**

### **16. Capital Cost and capital structure**

- (1) In case of existing projects, the capital cost admitted by the Commission prior to 01.04.2019 and the additional capital expenditure projected to be incurred for the respective year of the control period 2019-24, as may be admitted by the Commission, shall form the basis for determination of tariff.
- (2) Capital Cost for a new project shall include the following:
  - (a) the expenditure incurred including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation on the loan during construction up to the date of commercial operation of the project as admitted by the Commission after prudence check;
  - (b) capitalised initial spares subject to the ceiling rates specified in this Regulation; and
  - (c) expenditure on account of additional capitalisation determined under Regulation 17 and de-capitalisation:  
Provided that the assets forming part of the project but not put to use or not in use, shall be taken out of the capital cost.
  - (d) Adjustment due to revenue from sale of infirm power in excess of fuel cost prior to date of commercial operation;

- (e) Adjustment of any revenue earned by transmission Licensee by using assets before date of commercial operation;
- (3) The capital cost in case of existing or new hydro Generating Station shall also include 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.
- (4) 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 (to be declared at the time of filing tariff petition);
  - (b) De-capitalisation of 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;
  - (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 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;
  - (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.
- (5) The capital cost shall be admitted by the Commission after prudence check and shall form the basis for determination of tariff.  
 Provided that the actual capital expenditure as on COD for the original scope of work based on audited accounts of the company may be considered subject to prudence check by the Commission. If sufficient justification is provided for any escalation in the capital cost beyond the original scope of works, the same may be considered by the Commission during prudence check.
- (6) The prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff. While carrying out the prudence check of the capital cost, the Commission shall look into whether the Generating Company or Licensee has been careful in its judgements and decisions while executing the project or has been careful and vigilant in executing the project.
- (7) Where power purchase agreement or transmission agreement or wheeling agreement provides for a ceiling of capital cost, the capital cost to be considered shall not exceed such ceiling.
- (8) Initial spares shall be capitalised as a percentage of the Plant and Machinery cost up to 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  |       |
| Transmission Line-   | 1.00% |
| Transmission Sub-station   | 4.00% |
| Series Compensation devices and HVDC Station                                     | 4.00% |
| Gas Insulated Sub-station  | 5.00% |
| Static Synchronous Compensator   | 3.50% |
| (e) Distribution System  |       |

Distribution Line-	2.00%
Distribution Sub-station	4.00%

Provided that 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:

Provided further that 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:

Provided also that, 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, Financing Charges, overheads, Land Cost and cost of civil works.

- (9) Swapping of foreign currency loans will be permitted. Cost of swapping and interest rate charges thereafter, will be considered by the Commission after prudence check. The Generating Company or Licensee shall provide full particulars of the swapped loans. Cost of swapping will be considered towards interest and finance charges.
- (10) Restructuring of capital in terms of relative share of equity and loan shall be permitted during life of the project provided it does not affect tariff adversely. Any benefit from such restructuring shall be passed on to persons sharing the capacity charge in case of a Generating Company and to long-term intra-State open access customers of Transmission Licensee or Distribution Licensee or consumers in case of such Licensees.

#### 17. Additional capitalization

- (1) The following capital expenditure in respect of a new project or existing project, actually incurred within original scope of work, after the date of commercial operation and upto the cut-off date and duly audited, may be considered by the Commission against the original scope of work, subject to prudence check:
  - (a) Due to undischarged liabilities recognised to be payable at a future date;
  - (b) On works deferred for execution;
  - (c) Liabilities to meet award of arbitration or for compliance of direction or order of any statutory authority or satisfaction of order or decree of any court of law;
  - (d) On account of change in law or compliance of any existing law within cut-off date;
  - (e) On procurement of initial spares included in the original project costs subject to the ceiling norm laid down in Regulation 16(8);

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

Provided further that a list of the undischarged liabilities and works deferred for execution giving reasons therefor shall be submitted along with the application for final tariff after the date of commercial operation of the Generating Station:

Provided also that 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 giving reasons therefor.

- (2) The additional capital expenditure 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;
  - (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; and
  - (e) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;

Provided that the Generating Company shall file a Petition for in-principle approval of the Commission before incurring such additional capital expenditure.

- (3) 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, Debt and Equity as per sub-Regulation (8) below, 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 is necessary on account of change in law or Force Majeure conditions; or
  - (c) The replacement of such asset has otherwise been allowed by the Commission based on sufficient grounds.
- (4) Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt-equity ratio specified in Regulation 19.
- (5) The capital expenditure incurred on the following counts beyond the original scope of the project, may be admitted by the Commission, subject to prudence check:
- (a) Liabilities to meet award of arbitration or for compliance of the order or directions in the order of any statutory authority, or order or decree of any court of law;
  - (b) Change in law;
  - (c) Any capital expenditure to be incurred on account of 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;
  - (d) Deferred works relating to ash pond or ash handling system in addition to the original scope of work, on case to case basis;
  - (e) Any additions works/services, which have become necessary for efficient and successful operation of a generation station or transmission system but not included in the original capital cost;

Provided that the Generating Company shall file a Petition for in-principle approval of the Commission before incurring such additional capital expenditure:

Provided that any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced in the normative debt-equity ratio specified in Regulation 19:

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

- (6) Any expenditure admitted by the Commission for determination of tariff on renovation, modernization, life extension and restoration of assets damaged due to natural calamities shall be serviced on normative debt-equity ratio specified in Regulation 19 after writing off the original amount of the replaced assets from the original cost.
- (7) The additional capitalisation on account of revised emission standards shall be as under:
  - (a) A Generating Company requiring to incur additional capital expenditure in the existing Generating Station for compliance of the applicable revised emission standards shall share its proposal with the beneficiaries and file a petition for approval for undertaking such additional capitalization;
  - (b) The proposal under clause (a) 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;
  - (c) 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;
  - (d) 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.
- (8) In case of de-Capitalisation or retirement of assets of a Generating Company or Licensee, as the case may be,
  - (a) the original approved cost of such assets shall be deducted from the value of gross fixed assets;
  - (b) the original approved equity of such assets shall be deducted from the value of equity;
  - (c) the value of loan shall be reduced by the normative outstanding debt component i.e., original approved cost of such assets less accumulated depreciation allowed for such assets less approved equity of such assets.

## **18. Consumer Contribution, Deposit Works and Grant**

- (1) The following nature of work carried out by the Generating Company or Licensee or SLDC shall be classified under this category:
  - (a) Works after obtaining a part or all of the funds from the users/consumers in the context of consumer contribution, deposit works, or grant;
  - (b) Capital works undertaken by utilising grants received from the State and Central Governments, including funds under RGGVY, R-APDRP, IPDS, DDUGJY, etc.;
  - (c) Other works undertaken with funding received without any obligation of repayment and with no interest costs.

- (2) Principles for treatment of the expenses on such capital expenditure shall be as follows:
- (a) Normative O&M expenses as specified in these Regulations shall be allowed;
  - (b) The debt:equity ratio shall be considered in accordance with Regulation 19, after deducting the amount of such financial support;
  - (c) Provisions related to Depreciation, as specified in Regulation 22, shall not be applicable to the extent of financial support provided through consumer contribution, deposit work and grant. The Licensee or Generating Company, as the case may be, shall be allowed to claim depreciation to the extent of financial support, including the loan and equity contribution, provided by them;
  - (d) Provisions related to return on equity, as specified in Regulation 20 shall be applicable to the extent of normative debt: equity mix of 70:30 or actual equity, whichever is less, on the contribution made by the Licensee or Generating Company, as the case may be.

### 19. Debt-equity ratio

For the purpose of determination of tariff, debt-equity ratio as on date of commercial operation in case of a new Generating Station, transmission line and distribution line or substation commissioned or capacity expanded on and/or after 1.4.2019, shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as loan. Where actual equity employed is less than 30%, the actual equity shall be considered:

Provided that in case of the Generating Company, Transmission Licensee, SLDC and Distribution Licensee, if any fixed asset is capitalised on account of capital expenditure project prior to April 1, 2019, debt-equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2019 shall be considered:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

Provided also that in case of retirement or de-capitalisation of assets, the equity capital approved as mentioned above, shall be reduced in accordance with Regulation 17(8).

#### Explanation

The premium, if any, raised by the Generating Company or the Licensee or SLDC, while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the Generating Station or the transmission system or distribution system.

In case of Generating Station or a transmission system or distribution system, which has completed its useful life as on or after 1.4.2019, the accumulated depreciation as on the completion of the useful life less cumulative repayment of loan shall be utilized for reduction of the equity and depreciation admissible after the completion of useful life and the balance depreciation, if any, shall be first adjusted against the repayment of balance outstanding loan and thereafter shall be utilized for reduction of equity.

## 20. 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 rate of 14% for Transmission Licensees and SLDC, 15% for Generating Companies and 16% for Distribution Licensees.

## 21. Interest and finance charges on long-term loans

- (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.

Provided further that in case of retirement or de-capitalisation of assets, the loan arrived as mentioned above, shall be reduced in accordance with Regulation 17(8).

- (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 year of the Control Period shall be deemed to be equal to the depreciation allowed for that year.
- (4) Notwithstanding any moratorium period availed by the Generating Company or the Licensee or SLDC, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.
- (5) 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 regulated business of the Generating Company or Licensee or SLDC as the case may be:

Provided that at the time of truing up, the weighted average rate of interest computed on the basis of actual loan portfolio during the concerned year shall be considered as the rate of interest:

Provided further that the weighted average interest rate allowed by the Commission for normative loans shall continue to be applicable to the outstanding normative loans:

Provided also 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 also that if the regulated business of the Generating Company or Licensee, as the case may be, does not have actual loan, then the weighted average rate of interest of the Generating Company or 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 above interest computation shall exclude the interest on loan amount, normative or otherwise, to the extent of capital asset funded by Consumer Contribution, Deposit Works, Grants and Capital Subsidy.
- (8) The finance charges incurred for obtaining loans from financial institutions for any year shall be allowed by the Commission at the time of Truing up, subject to prudence check.

- (9) The Generating Company or the Licensee or SLDC shall make every effort to re-finance/re-structure the actual loan as long as it results in net savings on interest and in that event the costs associated with such re-financing/re-structuring shall be allowed by the Commission at time of truing up for respective year, subject to prudence check. The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing for computing the interest on loan.

## 22. Depreciation

- (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.
- (2) 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 Stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site:

Provided further that the capital cost of the assets of the hydro Generating Station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

- (3) Land other than the land held under lease and the land for reservoir in case of hydro Generating Station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.
- (4) Depreciation shall be calculated annually based on Straight Line Method (SLM) and at rates specified in Annexure-I to these Regulations for the assets of the Generating Station, transmission system and distribution system:

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

- (5) 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 up to 31.3.2019 from the gross depreciable value of the assets.
- (6) 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.
- (7) Depreciation against assets relating to environmental protection shall be allowed on case to case basis at the time of fixation of tariff subject to the condition that the environmental standards as prescribed have been complied with during the previous tariff period.
- (8) In case a single tariff needs to be determined for all the Units of Generating Station, the depreciation shall be computed from the effective date of commercial operation taking into consideration the depreciation of individual Units thereof.



**23. Lease charges**

Lease charges for assets taken on lease by a Generating Company or a transmission or Distribution Licensee or SLDC shall be considered as per lease agreement, provided they are considered reasonable by the Commission.

**24. Operation & Maintenance expenses**

- (1) Operation and maintenance expenses shall be determined for the first year of the Control Period based on normative O&M expenses specified by the Commission subsequently in these Regulations.
- (2) O&M expenses of assets taken on lease and those created out of consumers' contributions shall be considered, if the Licensee or SLDC or the Generating Company has the responsibility for its O&M and bears O&M expenses.
- (3) Normative O&M expenses allowed at the commencement of the Control Period (i.e. FY 2019-20) under these Regulations shall be escalated at rate of 3.51% per annum for each year of the Control Period for Generating Company, Transmission Licensees and SLDC and at rate of 3.63% per annum for each year of the Control Period for Distribution Licensees.
- (4) Increase in O&M expenses on account of war, insurgency, change in laws, or such other eventualities may be considered by the Commission for a specified period.

**25. Insurance expenses**

Actual insurance expenses incurred by the Generating Company or Licensee shall be allowed separately, subject to a ceiling of 0.2% of average Net Fixed Assets for the year.

**26. Bad and doubtful debts**

The Commission may consider a provision for writing off of bad and doubtful debts up to 0.25% of receivables subject to writing off of bad and doubtful debts in the previous year in accordance with the procedure laid down by Distribution Licensee.

**27. Interest charges on working capital**

- (1) The amount of normative working capital shall cover:
  1. Generation
    - (a) For coal based/Lignite-fired Generating Stations
      - (i) Landed Cost of coal or lignite for ½ (half) month for pit-head Generating Stations and 1½ (one and a half) months for non-pit-head Generating Stations, corresponding to the annual target availability;
      - (ii) Landed cost of limestone for 1½ (one and a half) month, corresponding to the annual target availability, wherever applicable;
      - (iii) Cost of secondary fuel oil for two months corresponding to the target availability and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;
      - (iv) Operation and Maintenance expenses for one month;
      - (v) Maintenance spares @ 20% of operation and maintenance expenses specified in Regulation 47; and
      - (vi) Receivables equivalent to 1½ (one and a half) months of fixed and variable charges for sale of electricity calculated on the annual target availability;

Provided that in case of own Generating Stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations.

(b) For Gas Turbine/Combined Cycle Generating Stations

- (i) Landed fuel cost for ½ (half) month corresponding to the annual target availability duly taking into account the mode of operation of the Generating Station on gas fuel and liquid fuel;
- (ii) Liquid fuel stock for ½ (half) month corresponding to the annual target availability, and in case of use of more than one liquid fuel, cost of main liquid fuel;
- (iii) Operation and maintenance expenses for one month;
- (iv) Maintenance spares @ 30% of operation and maintenance expenses specified in Regulation 47; and
- (v) Receivables equivalent to 1½ (one and a half) months of fixed and variable charges for sale of electricity calculated on annual target availability;

Provided that in case of own Generating Stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations.

(c) For Hydro Power Generating Stations

- (i) Operation and Maintenance expenses for one month;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in Regulation 47; and
- (iii) Receivables equivalent to one and a half (1½) months of fixed charges for sale of electricity, calculated on annual normative capacity index:

Provided that in case of own Generating Stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations.

2. Transmission and SLDC

- (i) Operation and maintenance expenses for one month; plus
- (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in Regulation 64 for Transmission and Regulation 70 for SLDC; plus
- (iii) Receivables equivalent to one and a half (1½) months of SLDC Charges for SLDC /transmission charges calculated on annual target availability level for Transmission Licensee;

**Less**

Amount held as security deposits from Users except security deposits held in the form of Bank Guarantees;

3. Distribution

- (i) Operation and maintenance expenses for one month; plus
- (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in Regulation 82; plus

- (iii) Receivables equivalent to one and a half (1½) months of billing of consumers;

**Less**

Amount held as security deposits from Distribution System Users (Open Access consumers) and retail supply consumers except the security deposits held in the form of Bank Guarantees;

- (2) Rate of interest on working capital to be computed shall be on normative basis and shall be 300 basis points higher than the average Base Rate prevalent during first six months of the year previous to the relevant year. The working capital and interest thereon shall be computed on normative basis notwithstanding that the Generating Company or Licensee has not taken working capital loan from any outside agency.
- (3) The variation in the interest amount on account of actual vis-a-vis normative interest rate on normative working capital shall be shared in the ratio of 50:50 between the Generating Company/Licensee/SLDC and the beneficiary.

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

- (1) The Generating Company or the Licensee or SLDC, 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, at the discretion of the Generating Company or the Licensee.
- (2) As and when the Generating Company or the Licensee or SLDC enters into any hedging based on its approved hedging policy, the Generating Company or the Licensee or SLDC should communicate to the beneficiaries concerned about its hedging decision within thirty days of entering into such hedging transaction(s).
- (3) Every Generating Company or Licensee or SLDC 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 Licensee or SLDC 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 Licensee or its suppliers or contractors.
- (5) Every Generating Company or Licensee or SLDC 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.

**29. Tax on Return on Equity**

- (1) Tax on the income corresponding to Return on Equity approved by the Commission for the Generating Company or the Licensee or SLDC, as the case may be, shall be directly recovered from the beneficiaries. Tax on the income shall be computed with reference to the total actual income tax paid by the Generating Company or the Licensee or SLDC as the case may be, on pro-rata basis with respect to return on equity. The tax on any other income stream (including efficiency gains, incentive, etc) other than Return on Equity shall not be recovered from beneficiaries, and tax on such other income shall be payable by the Generating Company or Licensee or SLDC, as the case may be.

- (2) In case the profit before tax for a particular year is higher than the Return on Equity as approved by the Commission for any year, the Income Tax on Return on Equity shall be recovered from the beneficiaries on pro-rata basis in the following manner:

Income Tax to be recovered = Total Income Tax Paid x RoE approved by the Commission/Profit before Tax.

- (3) In case the Profit before Tax for a particular year is lower than the Return on Equity as approved by the Commission for any year, the actual Income Tax paid by the Generating Company or Transmission Licensee or SLDC shall be recovered from beneficiaries.
- (4) Any under-recovery or over-recovery of tax on income shall be adjusted every year on the basis of income-tax assessment under the Income-Tax Act, 1961, as certified by the statutory auditor:

Provided that income-tax allocated to the Thermal Generating Station shall be charged to the beneficiaries in the same proportion as annual fixed charges, and the income-tax allocated to the hydro Generating Station shall be charged to the beneficiaries in the same proportion as annual capacity charges, and in case of Transmission Licensee, the sharing of income-tax shall be in the same proportion as annual transmission charges, in case of SLDC, the sharing of income-tax shall be in the proportion of operating charges, and in case of Distribution Licensee, the sharing of income-tax shall be in the proportion of monthly bill:

Provided further that the Generating Company, Licensee and SLDC shall bill the Income Tax under a separate head called 'Income Tax Reimbursement' in their respective bills.

- (5) The tax computation on ROE as approved by the Commission may be made based on advance tax assessed or deposited subject to adjustment on actual at the end of the year. The recovery or refund of tax, if any, in comparison with actual tax shall be made along with interest as determined by the assessing officer of Income Tax department. The penalty, if any, arising on account of delay in deposit of tax or short deposit of tax amount shall not be claimed by the Generating Company or the Licensee or SLDC as the case may be:

Provided that the deferred tax liability before 1.4.2009 shall be recovered from the beneficiaries as and when the same gets finalized. No claim on account of deferred tax liability arising after 1.4.2009 shall be made from the beneficiaries.

### **30. Unfunded liability of pension and gratuity**

The amount of unfunded liability of pension and gratuity in respect of employees of erstwhile RSEB shall be determined by the Commission to meet the actuarial liability as on 20.7.2000, towards pension and gratuity of such employees. Such amount shall be treated as an expense for the Licensee to whom the liability has been assigned by the State Government.

### **31. Refund of excess amount**

The Licensee or Generating Company or SLDC shall recover the charges as per the tariff determined by the Commission. If any Licensee or SLDC or Generating Company recovers the charges exceeding the tariff determined by the Commission, the excess amount shall be refunded to the person who has paid such excess charges, along with

interest equivalent to the Bank Rate without prejudice to any other liability incurred by the Licensee or Generating Company.

**32. Charges for delayed payments**

Any charges paid by a Licensee or SLDC or Generating Company for delay in payment of its dues to others arising out of reasons beyond his control shall be treated as expenses.

**33. Late payment surcharge**

- a) In case the payment of bills of generation tariff, transmission charges, operating charges of SLDC, wheeling charges or charges for electricity purchased by a person other than a consumer is delayed beyond a period of 45 days from the date of presentation of bills, a late payment surcharge equivalent to Base Rate as on 1<sup>st</sup> April of the respective year plus 400 basis points per annum on daily basis shall be levied by the Generating Company or Licensee.
- b) For delay in payment of bill by a consumer beyond the period specified by the Commission, a late payment surcharge as laid down by the Commission from time to time shall be payable to the Licensee.

**34. Norms of operation**

Norms of operation specified in these Regulations are the ceiling norms and the Generating Company, the Licensees and SLDC and the user may agree to improved norms. In such a case, the improved norms on the basis of their agreement shall be considered for the purpose of tariff determination.

**Part IV  
Revenues**

**35. Tariff income**

Income from all charges determined by the Commission for generation, transmission, fees and charges for SLDC, wheeling or supply of electricity shall be considered as tariff income:

Provided that in case of electricity distribution, the revenue realised for unauthorised use of electricity and 50% of the amount recovered against electricity theft shall be considered as tariff income. The remaining 50% of the amount recovered against electricity theft shall be considered as non-tariff income.

**36. Non-Tariff Income**

- (1) All revenues including but not limited to transformer rent, income from fixed deposit/statutory investment(s), income from rent on land/buildings, income from sale of scrap, income from sale of ash/rejected coal, income from advertisement, Interest on advances to suppliers/contractors, etc., shall be considered as Non-Tariff Income:

Provided that Late Payment Surcharge and Interest on Late Payment earned by the Generating Company or the Licensee shall not be considered under Non-tariff Income.

- (2) Any rebate earned by a Generating Company or Licensee or SLDC on account of prompt payment of its dues in accordance with Regulation 38 shall be treated as non-tariff income. The difference between revenue from the sale of electricity to the housing colonies or townships for its operating staff drawn from the Power Station/Sub Station bus bar and the cost of purchase/generation for such electricity shall be reported separately and shall be considered as non-tariff income.

**37. Surcharge and additional surcharge**

Surcharge and additional surcharge under Sections 39, 40 and 42 of the Act shall be considered as income and treated as directed by the Commission.

**38. Rebate for prompt payment**

- (1) For payment of bills of capacity charges and energy charges of generation tariff or of transmission charges or of operating charges of SLDC or of wheeling charges effected through the letter of credit or by cash/cheque or through electronic transfer within 5 working days of presentation of bills, a rebate of 1.5 % 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 5<sup>th</sup> day is official holiday, the 5<sup>th</sup> 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) If payments are made beyond 5 working days through Letter of Credit or by cash/cheque or through electronic transfer but within a period of 30 days of presentation of bills, a rebate of 1% shall be allowed.

**39. Income from Other Business**

- (1) Revenue from other business shall be treated as income to the extent authorized by the Commission.
- (2) The Licensee or SLDC shall submit the information, as specified under Regulation 11 (5) (i) along with the Petition to the Commission if the Licensee is engaged in any other business within the meaning prescribed under Sections 41 and 51 of the Act.

**40. Sharing of Clean Development Mechanism (CDM) credit**

Sharing of Clean Development Mechanism (i.e. CDM) credit during the current Control Period, shall be in the ratio 25:75 between Distribution Licensee and Generating Company respectively:

Provided that the share of 25% obtained by the Distribution Licensee shall be fully passed on to the consumers. In case the Distribution Licensee itself is the Generating Company, then 75% shall be retained by the Distribution Licensee and balance 25% shall be passed on to the consumers.

## **Part V Tariff for Generating Stations**

### **41. Applicability**

- (1) The Regulations specified in this Part V shall apply for determination of tariff for supply of electricity to a Distribution Licensee from Conventional Power Plants and Mini/ Micro Hydro (MMH) Power Station.
- (2) The Commission shall be guided by the Regulations contained in this Part in determining the tariff for supply of electricity by a Generating Company to a Distribution Licensee in the following cases:
  - a) where such tariff is pursuant to a power purchase agreement or arrangement entered into subsequent to the commencement of the Control Period; or
  - b) where such tariff is pursuant to a power purchase agreement or arrangement entered into prior to the commencement of the Control Period and either the Commission has not previously approved such agreement/arrangement or the agreement/arrangement envisages that the tariff shall be based on the RERC Tariff Regulations in force; or
  - c) where the Distribution Licensee is engaged in the business of generation of electricity, in determining the transfer price at which electricity is supplied by the Generation Business of the Distribution Licensee to its Retail Supply Business;

### **42. Petition for determination of generation tariff**

- (1) A Generating Company is required to file a Petition for determination of tariff for supply of electricity to Distribution Licensees in accordance with the provisions of Part II of these Regulations.
- (2) Tariff in respect of a Generating Station under these Regulations may be determined Stage-wise, Unit-wise or for the whole Generating Station. The terms and conditions for determination of tariff for Generating Stations specified in this Part shall apply in like manner to Stages or Units, as the case may be, as to Generating Stations.
- (3) Where the tariff is being determined for a Stage or Unit of a Generating Station, the Generating Company shall adopt a reasonable basis for allocation of capital cost relating to common facilities and allocation of joint and common costs across all Stages or Units, as the case may be:

Provided that the Generating Company shall maintain an Allocation Statement providing the basis for allocation of such costs, which shall be duly audited and certified by the Statutory Auditors, and submit such audited and certified statement to the Commission along with the application for determination of tariff.

- (4) A Generating Company may file a Petition for determination of provisional tariff within six months prior of the anticipated Date of Commercial Operation of the Unit or Stage or Generating Station as a whole, as the case may be, based on the capital expenditure actually incurred up to the date of making the Petition or a date prior to making of the Petition, duly certified by the Statutory Auditors and the provisional tariff shall be charged

from the date of commercial operation of such Unit or Stage or Generating Station, as the case may be.

- (5) A Generating Company shall file a fresh Petition in accordance with these Regulations, for determination of final tariff based on actual capital expenditure incurred up to the date of commercial operation of the Generating Station duly certified by the Statutory Auditors based on Audited Accounts, in accordance with the formats prescribed by the Commission from time to time.
- (6) Any difference in provisional tariff and the final tariff determined by the Commission and not attributable to the generating company may be adjusted in the tariff for the following year as directed by the Commission.

#### **43. Components of tariff**

- (1) The tariff for sale of electricity from a thermal Power Generating Station shall comprise of two parts, namely, the Annual Fixed Charges and Energy Charges to be worked out in the manner provided hereinafter.
- (2) The tariff for sale of electricity from a Hydro Power Generating Station shall comprise of two parts, namely, the recovery of annual capacity charges and energy charges to be worked out in the manner provided hereinafter.
- (3) The Annual Fixed Charges shall comprise of the following elements:
  - a) Operation & Maintenance Expenses;
  - b) Interest on term loans and finance charges;
  - c) Depreciation;
  - d) Interest on Working Capital;
  - e) Return on Equity Capital;

**Minus the following:**

- f) Non-Tariff Income.
- (4) The energy charges, in case of Thermal Generating Station and hydro Generating Station, shall be computed as specified in Regulation 51.

#### **44. Capital Cost and sale of Infirm Power**

- (1) The capital cost of a Generating Station shall be worked out in accordance with the provisions of Regulation 16.
- (2) The charges for sale of infirm power from the Thermal Generating Station to the Distribution Licensee shall be based on the actual fuel cost, including the lime stone cost, as the case may be, incurred during that period:

Provided that the maximum permissible period for sale of infirm power shall be limited to six months or as extended by the Commission on case to case basis:

Provided further that any revenue other than the recovery of fuel cost earned by the Generating Company from sale of infirm power shall be taken for reduction in capital cost and shall not be treated as revenue.



- (3) The capital cost of hydro power Generating Station, including the complete hydro power generating facility covering all components such as dam, intake, water conductor system, power Generating Station and generating units of the scheme as apportioned to power generation, shall be determined in accordance with Regulation 16:

Provided that any revenue earned by the Generating Company from sale of infirm power, shall be taken as reduction in capital cost of the Generating Station and shall not be treated as revenue. The rate for sale of infirm power shall be same as the primary energy rate of the Generating Station.

#### 45. Norms of operation for Thermal Generating Stations

The norms of operation as given hereunder shall apply:

- (1) Target Availability for recovery of full Annual Fixed Charges for Thermal Generating Stations:
- Target Availability for full recovery of annual fixed charges shall be 85 per cent for all Thermal Generating Stations to be commissioned after April 1, 2019 and 83 percent for all existing Thermal Generating Stations, except those covered under sub-Regulation (1) b), and (1) c).
  - Lignite fired thermal power stations using CFBC technology:
 

For first three years of operation	75.0%
Fourth year and onwards	80.0%

Note: First year of operation for the above sub-Regulation means 365 days from the Date of Commercial Operation and so on.
  - Target Availability for full recovery of annual fixed charges for the following stations shall be:

Station Name	Target Availability
Ramgarh Gas TPS (Stage 1 to 3)	70%
Dholpur CCPP (Unit 1 to 3)	70%

- (2) Target Plant Load Factor for Incentive:
- Target Plant Load Factor for Incentive shall be 85 per cent for all Thermal Generating Stations to be commissioned after April 1, 2019 and 83 percent for all existing Thermal Generating Stations, except those covered under sub-Regulation (2) b) and (2) c).
  - Lignite fired thermal power stations using (CFBC) technology:
 

For first three years of operation	75.0%
Fourth year and onwards	80.0%

Note: First year of operation for the above sub-Regulation means 365 days from the Date of Commercial Operation and so on.
  - Target Plant Load Factor for Incentive for the following stations shall be:

Station Name	Target Plant Load Factor
Ramgarh GTPS (Stage 1 to 3)	70%
Dholpur CCPP (Unit 1 to 3)	70%

#### (3) Gross Station Heat Rate –

- (a) Existing coal & Gas based Thermal Generating Stations/ units other than those covered under clause (b) and (c) below:

Stations/ Unit	Gross Station Heat Rate (kcal/kWh)	
Kota TPS (Unit 1 to Unit 7)	2561.70	
Suratgarh TPS (Unit 1 to Unit 6)	2476.28	
Ramgarh GTPS (Stage 1 to 3)	Combined Cycle	1950.00
	Open Cycle	2830.00
Dholpur CCPP (Unit 1 to 3)	Combined Cycle	1950.00
	Open Cycle	2830.00
Chhabra TPS (Unit1 to 4)	2400.00	
Raj West Lignite Thermal Power Station	2403.50	
Giral Lignite Thermal Power Station	2403.50	

Provided that in case of lignite-fired Generating Stations (including stations based on CFBC technology), Gross Station Heat Rate shall be increased using factor for moisture content as given below.

- i) For lignite having 50% moisture: Multiplying factor of 1.10
  - ii) For lignite having 40% moisture: Multiplying factor of 1.07
  - iii) For lignite having 30% moisture: Multiplying factor of 1.04
  - iv) For other values of moisture content, multiplying factor shall be pro-rated for moisture content between 30-40 and 40-50 depending upon the rated values of multiplying factor for the respective range given under sub-sub-Regulations (i) to (iii) above.
  - v) Moisture content shall be determined at the stage of firing.
- (b) Gross Station Heat Rate for existing or new Thermal Generating Stations/units not covered under 3 (a) above:

Coal and lignite based thermal power Generating Stations

$$= 1.05 \times \text{Design Heat Rate (kcal/kWh)}$$

Where the Design Heat Rate of a Unit means the Unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure:

Provided that if the Unit Design Heat Rate has not been guaranteed but turbine cycle heat rate and boiler efficiency are guaranteed separately by the same supplier or different suppliers, the Unit Design Heat Rate shall be arrived at by using guaranteed turbine cycle heat rate and boiler efficiency:

Provided further that the Design Heat Rate shall not exceed the limit as specified under Annexure- 2:

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 as given below.

- i) For lignite having 50% moisture: Multiplying factor of 1.10
- ii) For lignite having 40% moisture: Multiplying factor of 1.07
- iii) For lignite having 30% moisture: Multiplying factor of 1.04
- iv) For other values of moisture content, multiplying factor shall be pro-rated for moisture content between 30-40 and 40-50 depending upon the rated

values of multiplying factor for the respective range given under sub-sub-Regulations (i) to (iii) above.

v) Moisture content shall be determined at the stage of firing.

(c) Gas-based / Liquid-based thermal generating Unit(s) not covered under sub-Regulation 3 (a) above:

= 1.05 X Design Heat Rate of the Unit/block for Natural Gas and RLNG (kcal/kWh)

= 1.071 X 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 Unit at 100% MCR, site ambient conditions, zero percent make up, design cooling water temperature/back pressure.

(4) Secondary fuel oil consumption

(a) Coal-based Generating Stations: 0.50 ml/kWh

(b) Lignite-fired Generating Stations (based on CFBC Technology): 1.00 ml/kWh

(5) Lime stone consumption

Normative lime stone consumption for lignite based Generating Station using CFBC technology shall be computed in the following manner:

Limestone consumption (kg/kWh) = 0.056 x normative specific lignite consumption (kg/kWh) x  $S_{avg}$ (%)

$S_{avg}$  = Weighted Average inorganic sulphur content in lignite

(6) Auxiliary Energy Consumption

(a) Coal-based Generating Stations other than those covered under sub-Regulation (6)(d) below:

(A) For 110 MW and above up to 250 MW units

(i) With induced draft cooling towers 9.0 %

(ii) With natural draft cooling tower or without cooling towers 8.5 %

(B) Above 250 MW units

(a) Steam driven boiler feed pumps

(i) With induced draft cooling towers 5.75%

(ii) With natural draft cooling tower or without cooling towers 5.25%

(b) Electrically driven boiler feed pumps

(i) With induced draft cooling towers 8.25%

(ii) With natural draft cooling tower or without cooling towers 7.75%

Provided that for Thermal Generating Stations where tube type coal mill is used, the norm shall be further increased by 0.8%.

(b) Gas Turbine/Combined cycle Generating Stations other than those covered under sub-Regulation (6)(d) below:

(i) Combined cycle 2.5%

(ii) Open cycle 1.0%

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.

- (c) Lignite-fired thermal power Generating Stations:
- (i) The auxiliary energy consumption norms shall be 0.5 percentage point more than the above auxiliary energy consumption norms of coal-based Generating Stations at sub-Regulation (6)a) above.
  - (ii) For Lignite based Generating Stations with CFBC technology, the auxiliary energy consumption norms shall be 1.5 percentage point more than the above auxiliary energy consumption norms of coal-based Generating Stations at sub-Regulation (6)a) above.
- (d) Existing Thermal Generating Stations/Units:

Stations/ Unit		Auxiliary Energy Consumption (%)
Kota TPS (Unit 1 to Unit 7)		9.27%
Suratgarh TPS (Unit 1 to Unit 6)		9.00%
Chhabra TPS (Unit 1 to 4)		9.00%
Ramgarh GTPS (Stage 1 to 3)	Combined Cycle	3.00%
	Open Cycle	1.00%
Dholpur CCPP (Unit 1 to 3)	Combined Cycle	3.00%
	Open Cycle	1.00%
Raj West Lignite Thermal Power Station		11.5%
Giral Lignite Thermal Power Station		11.5%

Provided that for Thermal Generating Stations where tube type coal mill is used, the norm shall be further increased by 0.8%.

Note: For Ramgarh GTPS, additional auxiliary consumption of 3% for open cycle and 2% for combined cycle shall be applicable for number of days gas compressors are used.

(7) Transit Losses

Normative transit and handling losses for fuel based Generating Stations, as a percentage of quantity of fuel dispatched by the fuel supply Company during the month:

- (a) Coal/lignite supply
- i. Pit head Generating Stations 0.15%
  - ii. Non-pit head Generating Stations 0.80%

Provided that in case of imported coal, the transit and handling losses shall be 0.20%.

Provided further that normative transit and handling losses shall not be applicable if the Fuel Supply Agreement provides for billing on quantity of fuel delivered.

- b) Liquid or any other fuel 0%

- (8) In case of retirement of any Unit of existing Thermal Generating Station or in case the norms of any Unit are not specified above, the norms of operation for such generating unit/station shall be as approved by the Commission in respective Tariff Order.

#### 46. Norms of operation for Hydro Power Generating Stations

The norms of operation shall be as under, namely:

- (1) Normative capacity index for recovery of full capacity charges
- (a) During first year of commercial operation of the Generating Station
    - i. Run-of-river power stations without pondage: 85%.
    - ii. Storage type and Run-of-river power stations with pondage: 80%
  - (b) After first year of commercial operation of the Generating Station
    - i. Run-of-river power stations without pondage: 90%
    - ii. Storage type and Run-of-river power stations with pondage: 85%
  - (c) The Commission may relax the normative capacity index in case of non-availability of adequate quantity of water on case to case basis.
  - (d) There shall be pro-rata recovery of capacity charges in case the Generating Station achieves capacity index below the prescribed normative levels. At Zero capacity index, no capacity charges shall be payable to the Generating Station.
- (2) Auxiliary energy consumption:
- (a) Surface hydro Generating Stations
    - i. with rotating exciters mounted on the generator shaft : 0.2%
    - ii. with static excitation system : 0.5%
  - (b) Underground hydro Generating Stations
    - i. with rotating exciters mounted on the generator shaft : 0.4%
    - ii. with static excitation system : 0.7%
  - (c) Auxiliary energy consumption for existing hydro power stations
    - i. Mahi PH 2 - 3.0 lakh units per annum + 0.75% of energy generated
    - ii. Mahi PH 1 – 4.0 lakh units per annum + 0.65% of energy generated
    - iii. For new Mini/ Micro (MMH) Power Station – On actuals subject to maximum of 10% of energy generated

#### 47. Operation and Maintenance expenses

- (1) For coal, lignite and Gas turbine based Generating Stations:
- (a) 110 MW and above upto 250 MW unit size: Rs. 20.20 lakh per MW for FY 2019-20
  - (b) For above 250 MW unit size: Rs. 18.18 lakh/MW for FY 2019-20
- (2) For lignite based Generating Stations: Rs. 26.56 Lakh per MW for FY 2019-20

## (3) Gas Turbine/Combined Cycle Generating Stations

Particulars	Gas Turbine/Combined Cycle Generating Stations for FY 2019-20		Small Gas Turbine Generating Stations (less than 50 MW unit size) for FY 2019-20
	With warranty spares for 10 years	Without warranty Spares	Without warranty Spares
O&M Expenses for FY 2019-20	Rs. 10.09 Lakh/MW	Rs. 15.14 Lakh/MW	Rs. 18.38 Lakh/MW

- (4) In case the process water is required to be transported over a distance of more than 50 km, then appropriate special O&M expenses, subject to the prudence check by the Commission, shall be allowed in addition to the above O&M expenses. It shall include O&M expenses related to pipe line beyond 50 km and water pumping station operation cost, and additional power consumption for such pumping stations.
- (5) For Hydro Power Generating Stations:
- Operation & Maintenance expenses for Mahi I & Mahi II hydro power stations shall be Rs. 12.45 lakh per MW for FY 2019-20.
  - In case of the hydro electric Generating Stations, which have not been in operation for a period of five years, the operation and maintenance expenses shall be fixed at 1.0% of the capital cost as admitted by the Commission.
- (6) For the Generating Stations having combination of various Unit sizes, the weighted average value for operation and maintenance expenses shall be adopted.
- (7) O&M Expenses norms for each subsequent year shall be escalated by escalation rate as specified in Regulation 24.

Provided that terminal liabilities based on actuarial valuation, over and above the normative O&M Expenses, subject to prudence check shall be allowed through tariff separately.

**48. SLDC Fee and Charges and transmission charges**

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

**49. Computation of fixed charges and capacity charges**

- (1) Thermal Generating Power Generating Stations
- The total Annual Fixed Charges, including return on equity of a Generating Company shall be worked out on the basis of expenses and return allowed in terms of Part III and Part V of these Regulations.
  - The Annual Fixed Charges recoverable by a Generating Company shall be worked out by deducting its Non-Tariff Income as per provisions of Regulation 36 from the total annual expenses and return worked out under sub-Regulation (1)(a) above.
- (2) Hydro Power Generating Stations
- The two-part tariff for sale of electricity from a hydro power Generating Station shall comprise of recovery of annual capacity charge and primary energy

charges. The capacity charge shall be computed in accordance with the following formula:

$$\text{Capacity charge} = (\text{annual fixed charge} - \text{primary energy charge})$$

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

- (b) Annual Fixed Charges: Annual Fixed Charges shall be worked out as follows:
- (i) The total Annual Fixed Charges, including return on equity shall be worked out on the basis of expenses and return allowed in terms of Part III and Part V of these Regulations.
  - (ii) The Annual Fixed Charges shall be worked out by deducting Non-Tariff Income specified in Regulation 36 from the annual expenses and return worked out under sub-Regulation (2)(b)(i) above.

#### 50. Recovery of fixed charges or capacity charges

- (1) Full fixed charges or capacity charges shall be recoverable at target availability for Thermal Generating Stations specified in Regulation 45 or Normative Capacity Index specified in Regulation 46 for Hydro Power Generating Stations. Recovery of capacity charges below the level of target availability or the normative capacity index shall be on pro rata basis. At zero availability/capacity index, no fixed charges or capacity charges shall be payable.
- (2) Payment of capacity charges shall be on monthly basis in proportion to allocated/contracted capacity.

#### 51. Energy Charges

- (1) The energy (variable) charges for Thermal Generating Stations shall cover landed fuel costs and shall be computed as follows:

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

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

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

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

$(Q_p)_n$  = Quantity of primary fuel required for generation of one kWh of electricity at generator terminals in kg or litre or cum, as the case may be, and shall be computed on the basis of normative Gross Station Heat Rate (less heat contributed by secondary fuel oil for coal/lignite based Generating Stations) and gross calorific value of coal/lignite or gas or liquid fuel as received less 85 kCal/kg or gross calorific value as fired, whichever is higher.

$P_s$  = Price of Secondary fuel oil in Rs./ml,  
 $(Q_s)_n$  = Normative Quantity of Secondary fuel oil in ml/kWh as per Regulation 45(4), as the case may be, and  
 $AUX_n$  = Normative Auxiliary Energy Consumption as % of gross generation as per Regulation 45(6), as the case may be.  
 Energy charges, for the purpose of billing/fuel price variation will be worked out station-wise based on weighted average rate based on actual generation from the Units of each Station

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

Initially, Weighted Average Gross Calorific Value and landed cost of blended coal/lignite or gas or liquid fuel shall be taken as per actuals of the preceding three months. Any variation shall be adjusted on month to month basis on the basis of average Gross Calorific Value of blended coal/lignite or gas or liquid fuel in stock (including the variations in blending ratio) burnt and weighted average landed cost incurred by the Generating Company for procurement of coal/lignite, oil, or gas or liquid fuel, as the case may be for a power station. In its bills, the Generating Company shall indicate rate of energy charges at base price of primary and secondary fuel specified by the Commission and the Fuel price variation to it separately.

- (4) Landed Cost of fuel:  
 The landed cost of fuel shall include price of fuel corresponding to the grade/quality/calorific value of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail/road/gas pipe line (overseas or inland or both), handling cost, washery charges wherever applicable, charges for third party sampling and applicable statutory charges, and, for the purpose of computation of energy charges shall be arrived at after considering normative transit and handling losses as percentage of the quantity of fuel dispatched by the fuel supply company during the month as specified in Regulation 45(7).

The primary and secondary energy charges for Hydro Generating Stations shall be computed as follows:

- (5) Primary energy charge shall be worked out on the basis of paise per kWh rate on ex-bus energy scheduled to be sent out from the hydro electric power Generating Station.  
 (6) The rate of primary energy for hydro power stations shall be 50% of cost of generation or incentive rate applicable for thermal power stations, whichever is less.  
 (7) The primary energy charge shall be computed based on the primary energy rate and saleable energy of the station:

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

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

- (8) Primary Energy Charge = Saleable Primary Energy x Primary Energy Rate  
 (9) Secondary Energy Rate shall be equal to Primary Energy Rate.



Secondary Energy Charge = Saleable Secondary Energy x Secondary Energy Rate.

- (10) Above provisions shall not be applicable to existing Mini/Micro (MMH) Power Station.

## 52. Incentive

- (1) For Thermal Power Generating Stations
- (a) Incentive shall be payable by the beneficiary at a flat rate of 30 paise/kWh for actual ex-bus energy in excess of ex-bus energy corresponding to target Plant Load Factor.
- (b) The incentive amount shall be computed and billed on monthly basis, subject to cumulative adjustment in each month of the financial year, and final adjustment shall be made at the end of the financial year.
- (2) For Hydro Power Generating Stations
- (a) Incentive shall be payable in case of all the hydro power Generating Stations, including in case of new Generating Stations in the first year of operation, when the capacity Index (CI) exceeds 90% for run-of-river power Generating Stations without pondage and 85% for run-of-river power station with pondage or storage type power Generating Stations and incentive shall accrue up to a maximum capacity index of 100%.
- (b) Incentive shall be payable to the Generating Company in accordance with the following formula:

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

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

Where,  $\text{CI}_A$  is the Capacity Index achieved and  $\text{CI}_N$  is the normative capacity index whose values are 90% for run of the river hydro stations without pondage and 85% for pondage/storage type hydro Generating Stations.

- (c) The incentives on account of capacity index and payment for secondary energy shall be computed and billed on monthly basis, subject to cumulative adjustment in each month of the financial year, separately in respect of each item, and final adjustment shall be made at the end of the financial year.
- (d) The total incentive payment calculated on annual basis shall be borne by the beneficiaries based on the allocated/ contracted capacity.

## 53. Scheduling

- (1) For Thermal Power Generating Stations

The methodology of scheduling and availability shall be as specified in the Rajasthan Electricity Grid Code notified by the Commission.

- (2) For Hydro Power Generating Stations
- (a) Scheduling shall be as specified in the Rajasthan Electricity Grid Code notified by the Commission. Hydro power plants of capacity below 25 MW shall not be subject to scheduling.
- (b) Declaration of available capacity shall also include limitation on generation during specific time periods, if any, on account of restriction(s) on water use due to irrigation, drinking water, industrial, environmental considerations, etc.

- (c) For run-of-river power stations without pondage, since variation of generation in such stations may lead to spillage, these shall be treated as must run stations. The maximum available capacity, duly taking into account the over load capability, must be equal to or greater than that required to make full use of the available water.
- (d) For run-of-river power station with pondage and storage type power stations, since, these hydro stations are designed to operate during peak hours to meet system peak demand, maximum available capacity of the station declared for the day shall be equal to the installed capacity including overload capability, minus auxiliary consumption and transformation losses, corrected for the reservoir level. The State Load Despatch Centre shall ensure that generation schedules of such type of stations are prepared and the stations dispatched for optimum utilization of available hydro energy except in the event of specific system requirements/constraints.

#### **54. Demonstration of declared capability**

- (1) The Generating Company may be required to demonstrate the declared capability of its Generating Station as and when asked by the State Load Despatch Centre. In the event of the Generating Company failing to demonstrate the declared capability, the fixed charges or capacity charges due to the generator shall be reduced as a measure of penalty.
- (2) The quantum of penalty for the first mis-declaration for any duration/block in a day shall be the charges corresponding to two days fixed charges. For the second mis-declaration, the penalty shall be equivalent to fixed charges for four days and for subsequent mis-declarations in the year, the penalty shall be multiplied in the geometrical progression.
- (3) The operating logbooks of the Generating Station shall be available for review by the State Load Despatch Centre. These books shall keep record of machine operation and maintenance.

#### **55. Billing and payment of fixed charges or capacity charges**

- (1) Billing and payment of fixed charges or capacity charges for Thermal Power Generating Stations shall be done on a monthly basis in the following manner.
- (2) The Distribution Licensees and persons having power purchase agreement for firm power for more than one year shall pay the fixed charges or capacity charges in proportion to their percentage share, allocation or contract in the installed capacity of a Generating Station.
- (3) A Distribution Licensee or a person having power purchase agreement for firm power for more than one year may surrender his share in installed capacity in favour of another Distribution Licensee within the State. In such circumstances, the capacity charges payable shall be revised in accordance with capacity surrendered and additional capacity acquired. Any such reallocation shall be notified by the SLDC in advance, at least 3 days prior to such reallocation taking effect.
- (4) If any capacity remains un-requisitioned in any period, full fixed charges or capacity charges shall be shareable by the persons mentioned in sub-Regulation (2) above.

- (5) If any capacity remains un-requisitioned in any period, the Generating Company shall be free to sell electricity to any person including a person outside the State and such person to whom electricity is sold shall also share the capacity charges in addition to persons mentioned in sub clause (2) above in proportion to the capacity utilized by such person.
- (6) The fixed charges for Thermal Generating Stations shall be paid by the persons covered under (2), (3) & (5) above including those outside the State to the Generating Company every month in accordance with the following formula:

- a) Total fixed charges payable to the thermal power Generating Company for the:

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

- b) Each person having firm share in capacity of the Generating Station shall pay for the:

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

Where,

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

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

- (7) Billing and payment of capacity charges for Hydro Power Generating Stations shall be done on a monthly basis in the following manner:-

The capacity charges for hydro Generating Stations shall be paid by the Distribution Licensee and person having power purchase agreements for more than one year to the Generating Company every month in accordance with the following formulae and in proportion to their respective shares in the concerned Generating Station:

$$\begin{aligned} \text{ACC1} &= \text{AFC} - (\text{SPE1} + \text{DE 2nd to 12th months}) * \text{Primary Energy Rate} \\ \text{ACC2} &= \text{AFC} - (\text{SPE2} + \text{DE 3rd to 12th months}) * \text{Primary Energy Rate} \\ \text{ACC3} &= \text{AFC} - (\text{SPE3} + \text{DE 4th to 12th months}) * \text{Primary Energy Rate} \\ \text{ACC4} &= \text{AFC} - (\text{SPE4} + \text{DE 5th to 12th months}) * \text{Primary Energy Rate} \\ \text{ACC5} &= \text{AFC} - (\text{SPE5} + \text{DE 6th to 12th months}) * \text{Primary Energy Rate} \\ \text{ACC6} &= \text{AFC} - (\text{SPE6} + \text{DE 7th to 12th months}) * \text{Primary Energy Rate} \\ \text{ACC7} &= \text{AFC} - (\text{SPE7} + \text{DE 8th to 12th months}) * \text{Primary Energy Rate} \\ \text{ACC8} &= \text{AFC} - (\text{SPE8} + \text{DE 9th to 12th months}) * \text{Primary Energy Rate} \\ \text{ACC9} &= \text{AFC} - (\text{SPE9} + \text{DE 10th to 12th months}) * \text{Primary Energy Rate} \\ \text{ACC10} &= \text{AFC} - (\text{SPE10} + \text{DE 11th to 12th months}) * \text{Primary Energy Rate} \\ \text{ACC11} &= \text{AFC} - (\text{SPE11} + \text{DE 12th month}) * \text{Primary Energy Rate} \\ \text{ACC12} &= (\text{AFC} - \text{SPE12}) * \text{Primary Energy Rate} \end{aligned}$$

Where,

AFC = Annual Fixed Charges

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

SPE1, SPE2, SPE3,..... SPE12 are the ex-bus scheduled primary energy values up to 1st, 2nd, 3rd ..... 12th months of the year, respectively;

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

DE = Annual Design Energy

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

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

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

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

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

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

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

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

DE

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

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

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

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

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

Total capacity charges payable to the generator for the:

- 1st month = (CC1)
- 2nd month = (CC2 - CC1)
- 3rd month = (CC3 - CC2)
- 4th month = (CC4 - CC3)
- 5th month = (CC5 - CC4)
- 6th month = (CC6 - CC5)
- 7th month = (CC7 - CC6)
- 8th month = (CC8 - CC7)
- 9th month = (CC9 - CC8)
- 10th month = (CC10 - CC9)
- 11th month = (CC11 - CC10)
- 12th month = (CC12 - CC11)

and, each beneficiary having firm allocation in capacity of the Generating Station shall pay for the :

- 1st month = [CC1 x WB1]/100
- 2nd month = [CC2 x WB2 - CC1x WB1]/100
- 3rd month = [CC3 x WB3 - CC2 x WB2]/100
- 4th month = [CC4 x WB4 - CC3 x WB3]/100
- 5th month = [CC5 x WB5 - CC4 x WB4]/100
- 6th month = [CC6 x WB6 - CC5 x WB5]/100
- 7th month = [CC7 x WB7 - CC6 x WB6]/100
- 8th month = [CC8 x WB8 - CC7 x WB7]/100
- 9th month = [(CC9 x WB9 - CC8 x WB8)]/100
- 10th month = [CC10 x WB10- CC9 x WB9]/100
- 11th month = [CC11 x WB11- CC10x WB10]/100
- 12th month = [CC12 x WB12- CC11x WB 11]/100

Where,

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

#### 56. Sharing of gains or losses on account of controllable factors

- (1) The financial gains by a Generating Company as approved by the Commission on account of Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil

Consumption shall be shared between Generating Company and the Distribution Licensee, in the ratio of 60:40 between the Generating Company and beneficiary as per the following formulae:

$$\text{Net Gain} = (\text{ECR}_N - \text{ECR}_A) \times \text{Scheduled Generation}$$

Where,

$\text{ECR}_N$  – Normative Energy Charge Rate computed on the basis of norms specified for Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption.

$\text{ECR}_A$  – Actual Energy Charge Rate computed on the basis of actual Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption for the month.

- (2) The financial losses by a Generating Company on account of Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption shall be borne by the Generating Company.

**57. Tariff for existing Mini/ Micro (MMH) Power Station**

Tariff for existing Mini/ Micro (MMH) Power Station for the Control Period shall be Rs 4.16 per kWh.

**Part VI  
Tariff for Transmission**

**58. Applicability**

- (1) The Regulations contained in this Part shall apply in determining tariffs for access to and use of the intra-State transmission system of a Transmission Licensee pursuant to a Transmission Service Agreement or other arrangement entered into with a User of the transmission system and operating charges of SLDC.
- (2) The Commission shall be guided by the terms and conditions contained in this Part in specifying the rates, charges, terms and conditions for use of intervening transmission facilities pursuant to an application made in this regard by a Licensee under the proviso to Section 36 of the Act.

**59. Petition for determination of Transmission tariff**

- (1) A transmission Licensee shall file a petition for determination of tariff in respect of existing lines or substations or transmission system as a whole complying with provisions of Part II of these Regulations:

Provided that the transmission Licensee shall propose a transmission loss reduction target for the ensuing year as well as for the subsequent years of the Control Period, giving details of the measures proposed to be taken for achieving the targets proposed, along with the Tariff Petition for the first year of the Control Period.

**60. Components of tariff**

The Annual Transmission Charges shall provide for the recovery of the aggregate revenue requirement of the Transmission Licensee for the financial year, as reduced by the amount of non-tariff income, and income from Other Business as approved by the Commission and shall be computed as per Regulation 63.

## 61. Capital Investment Plan

- (1) If the Transmission Licensee has opted for Annual Tariff Determination, the capital investment plan shall be filed in accordance with the RERC (Investment Approval) Regulations, 2006 for the ensuing year.
- (2) If the Transmission Licensee or SLDC has opted for Multi Year Tariff Determination for each year of the Control Period, the Transmission Licensee or SLDC shall submit the Capital Investment plan for each year of the Control Period within 60 days from the date of notification of these Regulations.
- (3) The capital investment plan shall be a least cost plan for undertaking investments for strengthening and augmentation of the intra-State transmission system for meeting the requirement of power evacuation, load growth, reduction in transmission losses, improvement in quality of supply, reliability, metering, etc.
- (4) The capital investment plan shall cover all capital expenditure of projects to be undertaken by the Transmission Licensee or SLDC in the ensuing year and shall be in such form as may be stipulated by the Commission from time to time.
- (5) The capital investment plan shall be accompanied by such information, particulars and documents as may be required showing the need and justification for the proposed investments. The capital investment plan shall also include capitalisation schedule and financing plan.
- (6) The Commission shall consider and approve capital investment plan filed by Transmission Licensee or SLDC, with modifications, if necessary, based on prudent check. The costs corresponding to the approved investment plan of the transmission Licensee or SLDC for a given year shall be considered for its revenue requirement.

## 62. Norms of Operation

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

- (1) Auxiliary Power Consumption in the Sub-Station:  
The auxiliary consumption in the sub-station for the purpose of air-conditioning, lighting, technical consumption, etc., shall be considered as part of transmission losses and shall be accounted for separately.
- (2) Normative Availability of the Transmission System:  
The Normative Availability of the Transmission System shall be as follows:
 

a) High Voltage AC system	: 98%
b) High Voltage DC bipole links & HVDC back-to-back stations	: 95%
For Incentive consideration	
a) High Voltage AC system	:98.50%
b) High Voltage DC bipole links & HVDC back-to-back stations	:97.50%

Provided further that no incentive shall be payable for availability beyond 99.75%.

Availability shall be calculated sub-station wise and integrated for all sub-stations effecting supply to a user in the manner as may be laid down by the Commission in the

RERC (Transmission Licensee's Standards of Performance) Regulations, 2004 and shall be certified by SLDC.

**Note:** Recovery of annual transmission charges below the level of normative availability shall be on pro-rata basis. At zero availability, no transmission charges shall be payable.

### 63. Aggregate Revenue Requirement

The Aggregate Revenue Requirement of the Transmission Licensee shall comprise the following components, viz.:

- a) Operation and maintenance expenses;
- b) Interest and finance charges on long-term loans;
- c) Depreciation and amortisation of intangible assets;
- d) Interest on working capital and interest payable on deposits from Users; and
- e) Return on equity;

**Minus the following:**

- f) Non-tariff income; and
- g) Income from Other Business, to the extent specified in these Regulations:

Provided that in case of RVPN, the ARR shall include the additional contribution towards pension and gratuity trust as determined by the Commission in terms of Regulation 30 of these Regulations.

### 64. Operation and Maintenance expenses

The norms for O&M expenses have been fixed for the first year of the Control Period (i.e., FY 2019-20) on the basis of circuit kilometre of transmission lines, transformation capacity in MVA, and number of feeder bays in the substation, as given below:

(a) O&M expense per ckt-km		
- 765 kV	:	Rs. 1.03 lakh per ckt-km
- 400 kV	:	Rs. 0.65 lakh per ckt-km
- 220 kV	:	Rs. 0.26 lakh per ckt-km
- 132 kV	:	Rs. 0.15 lakh per ckt-km
(b) O&M expense per MVA capacity	:	Rs. 0.40 lakh per MVA
(c) O&M expense per feeder bay		
- 765 kV	:	Rs. 60.16 lakh per feeder bay
- 400 kV	:	Rs. 40.10 lakh per feeder bay
- 220 kV	:	Rs. 5.59 lakh per feeder bay
- 132 kV	:	Rs. 3.80 lakh per feeder bay

**Note:** MVA capacity includes MVAr.

O&M Expenses norms for each subsequent year shall be escalated by escalation rate as specified in Regulation 24:

Provided that terminal liabilities based on actuarial valuation, over and above the normative O&M Expenses, subject to prudence check shall be allowed through tariff separately.

### 65. Payment of Transmission Charges



- (1) A Transmission Licensee may be allowed to recover its aggregate revenue requirement through transmission charges as one or combination of the following charges:
- Network Access Charge – A fixed charge corresponding to cost recovery for Connection Assets
  - Network Usage Charges - A fixed charge based on capacity contracted/agreed
  - A charge based on energy transmitted
  - Connectivity charge
  - Reactive energy charge
  - Transmission pricing system duly considering factors like voltage, distance, direction and quantum of flow based on adoption of the methodology specified by the Central Electricity Regulatory Commission:

Provided that in case of projects developed through competitive bidding in accordance with Section 63 of the Act and the guidelines stipulated by the Central Government, the annual transmission charges shall be as per the annual Transmission Service Charges (TSC) adopted for such transmission projects.

- (2) The transmission losses as allowed by the Commission shall be borne by the users of the transmission system in kind, as percentage of energy transmitted.

#### **66. Allocation of annual transmission charges**

- (1) The Long-Term and Medium-Term Users of the transmission system shall share the transmission cost in such proportion as their contracted transmission capacity to the total transmission capacity contracted/agreed from the intra-State transmission system:

Provided that the charges payable by the Long-Term and Medium-Term Users may also take into consideration factors such as voltage, distance, direction, quantum of flow and time of use, as may be stipulated by the Commission in its order passed under subsection (3) of Section 64 of the Act:

Provided further that the charges shall be calculated on a daily basis by the Transmission Licensee and shall be billed every month, except where directed otherwise by the Commission for any User or class of such users:

Provided also that charges payable by Open Access consumers (other than Long-Term and Medium-Term) shall be in accordance with RERC (Terms and Conditions for Open Access) Regulations, 2016, as amended thereto and in the manner as specified by the Commission through Orders to be issued from time to time.

- (2) The Annual Transmission Charges (ATC) payable by a Long-term and Medium-Term User of the transmission system shall be computed in accordance with the following equation:
- $$ATC = TC \times [CL / SCL]$$

Where,

TC = Transmission Cost equivalent to the ARR of RVPN less income from short term open access transactions;

CL = Contracted/agreed Transmission Capacity of the User;

SCL = Sum of Contracted/agreed Transmission Capacity of all Users.

#### **67. Treatment of losses**

Transmission Losses allowed by the Commission will have to be borne by users of the transmission system and energy accounts, to be maintained by SLDC, shall reflect accordingly.

**68. Incentive**

- (1) A Transmission Licensee shall be entitled to incentive on achieving annual availability above the normative availability in accordance with the following formula:

$$\text{Incentive} = \text{Annual Transmission Charges} \times \frac{[\text{Annual availability achieved} - \text{Normative Availability}]}{\text{Normative Availability}};$$

Where,

Annual Transmission Charges shall be the charges worked out under Regulation 63:

Provided that no incentive shall be payable above the availability of 99.75%.

- (2) Incentive to be paid to the Transmission Licensee shall be shared by the Licensees, long-term and medium-term open access customers.

**69. Reactive Energy Charges**

The Distribution Licensee shall provide the adequate capacitor bank at the load side and beyond the point of interconnection with the transmission system, wherever required, based on the system study carried out by the transmission Licensee and maintain the lagging power factor of not less than 0.95. The reactive energy charges for low power factor shall be specified by the Commission while specifying the Tariff Order from time to time.

**70. Recovery of SLDC expenses**

- (1) The Commission shall determine SLDC fees and charges in accordance with RERC (Levy of fees and charges for State Load Despatch Centre) Regulations, 2004 as amended from time to time. The determination of SLDC fees and charges during each year of the Control Period shall be based on approved SLDC expenses as outlined under sub-Regulation (2) below.
- (2) The SLDC expenses shall contain:
- (a) Operating expense components comprising the following:
    - (i) O&M expenses;
    - (ii) Interest on Working Capital;
    - (iii) RLDC Fee and Charges;
  - (b) Capital expense components comprising the following:
    - (i) Depreciation;
    - (ii) Interest and finance charges on term loan; and
    - (iii) Return on equity.
- (3) The segregated Accounts, duly certified by the Statutory Auditor or a Chartered Accountant, pertaining to SLDC function shall form the basis for approval of SLDC expenses and determination of SLDC fees and charges thereof in the manner as specified by the Commission through Orders to be issued from time to time. For this purpose, SLDC shall maintain their own accounts independent to transmission licensee accounts.

The O&M Expenses as approved by the Commission for FY 2018-19 shall be considered as base O&M Expenses.

- (4) O&M Expenses for each subsequent year shall be calculated by escalating base O&M expenses with the escalation rate as specified in Regulation 24:

Provided that terminal liabilities based on actuarial valuation, over and above the normative O&M Expenses, subject to prudence check shall be allowed through tariff separately.

## **Part VII Tariff for Distribution: Wheeling and Retail Supply of Electricity**

### **71. Applicability**

- (1) These Regulations shall apply for determination of tariff for retail sale of electricity by a Distribution Licensee to its consumers.
- (2) The Regulations contained in this Part shall also apply to the determination of tariff payable for wheeling of electricity by a Distribution System User who has been allowed open access to the distribution system of a Distribution Licensee in accordance with the Rajasthan Electricity Regulatory Commission (Open Access) Regulations, 2016, as amended from time to time.

### **72. Petition for determination of Wheeling Charges and Retail Supply Tariff**

A Distribution Licensee shall file a Petition for determination of wheeling charges and retail tariff along with its tariff petition complying with the provisions of Part II of these Regulations. The Distribution Licensee shall also include determination to Cross Subsidy Surcharge and Additional Surcharge in its Petition for determination of wheeling charges and retail tariff.

### **73. Capital Investment Plan**

- (1) If the Distribution Licensee has opted for Annual Tariff Determination, the capital investment plan shall be filed in accordance with the RERC (Investment Approval) Regulations, 2006 for the ensuing year by 30th November of the current year.
- (2) If the Distribution Licensee has opted for Multi Year Tariff Determination for each year of the Control Period, the Distribution Licensee shall submit the Capital Investment plan for each year of the Control Period within 60 days from the date of notification of these Regulations.
- (3) The capital investment plan shall be a least cost plan for undertaking investments on strengthening and augmentation of the distribution system for meeting the requirement of load growth, reduction in distribution losses, improvement in quality of supply, reliability, etc.
- (4) The capital investment plan shall cover all capital expenditure of projects to be undertaken by the Distribution Licensee in the ensuing year and shall be in such form as may be stipulated by the Commission from time to time.

- (5) The investment plan shall be accompanied by such information, particulars and documents as may be required showing the need and justification for the proposed investments. The investment plan shall also include capitalisation schedule and financing plan.
- (6) The Commission shall consider and approve the Distribution Licensee's capital investment plan, with modifications, based on prudent check, as required. The costs corresponding to the approved investment plan of the Distribution Licensee for a given year shall be considered for its revenue requirement.

#### **74. Estimation of sales**

- (1) The Distribution Licensee shall submit a forecast of expected demand and sale of electricity for different categories of consumers and to each consumption slab within each tariff category in his area of supply.
- (2) Sale of electricity, if any, to electricity traders or other Distribution Licensees shall be separately indicated.
- (3) Where the Commission has stipulated a methodology for forecasting sales to any particular tariff category, the Distribution Licensee shall incorporate such methodology in developing the sales forecast for such tariff category.
- (4) The Commission shall examine the forecasts for reasonableness based on growth in number of consumers and consumption and demand of electricity in previous years and anticipated growth in the next year and any other factor, which the Commission may consider relevant and approve sale of electricity to consumers with such modifications as deemed fit.

#### **75. Distribution Losses & Collection Efficiency**

- (1) The Distribution Licensee shall give information of total and voltage-wise distribution losses in the previous year and current year and the basis on which such losses have been worked out.
- (2) The Distribution Licensee shall give information of total and category-wise collection efficiency in the previous year and current year and the basis on which such collection efficiency has been worked out.
- (3) The Distribution Licensee shall also propose a target for loss reduction and improvement in collection efficiency for the ensuing year as well as for the subsequent years of Control Period giving details of the measures proposed to be taken for achieving the targets proposed, along with the first ARR/Tariff Petition to be filed for the Control Period.
- (4) Based on the information furnished and the target for loss reduction and improvement in collection efficiency proposed by the Distribution Licensee, the Commission shall fix a target for reduction of distribution losses and improvement in collection efficiency for the ensuing years of the Control Period.
- (5) The gains arising on account of distribution losses being lower or the losses arising on account of distribution loss being higher than the target fixed for any year by the Commission, shall be shared in the ratio of 50:50 between the Distribution Licensee and the consumers.

## 76. Aggregate Revenue Requirement

- (1) The retail supply tariff of a Distribution Licensee shall provide for recovery of the Aggregate Revenue Requirement of the Distribution Licensee for the financial year, as reduced by the amount of non-tariff income, income from wheeling, income from other Business and receipts on accounts of cross-subsidy surcharge and additional surcharge, as approved by the Commission, and subsidy from the State Government, if any, and shall comprise the following:
  - (a) Cost of power purchase, cost of power generation for self and partnership projects;
  - (b) Transmission charges;
  - (c) NLDC/RLDC/SLDC Charges;
  - (d) Operation and Maintenance expenses;
  - (e) Interest and finance charges on long-term loans;
  - (f) Depreciation;
  - (g) Amortisation of Regulatory assets;
  - (h) Interest on working capital;
  - (i) Interest on consumer security deposits and deposits from Distribution System Users;
  - (j) Provisioning for Bad debts, if any
  - (k) Return on equity;
  
- (2) Net Revenue Requirement from sale of electricity = Aggregate Revenue Requirement, as above, minus:
  - (a) Non-tariff income;
  - (b) Income from wheeling charges recovered from open access consumers;
  - (c) Income from Other Business, to the extent specified in these Regulations;
  - (d) Receipts on account of cross-subsidy surcharge from open access consumers; and
  - (e) Receipts on account of additional surcharge on charges of wheeling from open access consumers:

Provided that any revenue grant received from the State Government other than the subsidy under Section 65 of the Act shall be treated in the manner as indicated by the State Government. If no such manner is indicated the grant shall be used to reduce the overall gap between the ARR and revenue of Discoms.

- (3) The retail supply tariff of the Distribution Licensee shall be determined by the Commission on the basis of an application for determination of tariff made by the Distribution Licensee in accordance with **Part II** of these Regulations.

## 77. Estimate of power purchase requirement

- (1) The Distribution Licensee in accordance with the RERC (Power purchase and procurement process of Distribution Licensee) Regulations, 2004, as amended from time to time shall prepare an annual plan for procurement of power to serve the demand for electricity in its area of supply and submit such plan to the Commission for approval along with the Tariff Petition. The annual procurement plan should be prepared considering the:
  - (a) Quantitative forecast of the demand for electricity, within the area of supply, from each tariff category over the year;
  - (b) Measures proposed to be implemented as regards energy conservation and energy efficiency;
  - (c) Approved level of transmission and distribution losses:

Provided that for purchase of electricity from sources outside the State, the transmission loss level agreed to in PPA or worked out from energy accounts of RLDC/SLDC shall be accepted;

- (d) An estimate of the quantity of electricity supply from the approved sources of generation and power purchase;
  - (e) Minimum share of renewable energy purchase as may be prescribed by the Commission;
  - (f) Availability of new sources of power generation and/or procurement;
  - (g) An estimate of quantity of short-term power;
- (2) The Commission shall approve the power purchase requirement including that from short term sources, while approving the ARR with such modifications as deemed fit.

#### **78. Power Procurement Cost**

- (1) The Distribution Licensee shall procure electricity in accordance with provisions of the Regulations made by the Commission in this regard. The Licensee shall also submit Cost estimates for power procurement along with the annual procurement plan as required under Regulation 77 above.
- (2) The cost of power purchased from Generating Companies and cost of transmission shall be worked out based on tariff determined or adopted by the Appropriate Commission, as the case may be.
- (3) The cost of power purchased from nuclear power stations of NPCIL shall be worked out on the basis of tariff notified by Department of Atomic Energy.
- (4) The cost of power purchase from traders and other Licensees shall be considered based on PPAs subject to sub-Regulation (1) above.
- (5) Cost of power generated by a Distribution Licensee and sold by it to consumers shall be worked out based on transfer price determined by the Commission.
- (6) The Distribution Licensees may enter in to a short-term arrangement or agreement for procurement of power without the prior approval of the Commission where the tariff for power procured under such arrangement or agreement is in accordance with:

- (a) Guidelines for Short-Term Procurement of Power by Distribution Licensees through Tariff based bidding process issued by the Central Government:

Provided that, the Commission shall indicate a tariff for procurement of short-term power which shall be considered as approved ceiling tariff for short term power procurement under bidding guidelines:

Provided further that in case procurement of short term power exceeds the quantum approved by the Commission in ARR order or otherwise, the Distribution Licensees shall obtain prior approval from Energy Assessment Committee consisting of CMDs of STU, RVUN, each Distribution Licensee and in-charge of SLDC constituted for the purpose under the RERC (Power Purchase and Procurement process of Distribution Licensee) Regulations, 2004, as amended from time to time.

- (b) When the Commission has specified the minimum and maximum ceiling price for power procurement under any contingency situation and power purchase price is within that band;
- (c) Procurement by way of exchange of energy under 'banking' transactions.
- (d) In case of short-term power requirement due to unforeseen contingency or circumstances resulting in purchase of power for less than 15 days or in purchase from power exchange or when faced with emergency conditions

that threaten the stability of the distribution system or when directed to do so by State Load Despatch Centre to prevent grid failure:

Provided that the Distribution Licensee may carry out power purchases in above mentioned situations at a rate higher or lower than the ceiling rate approved by the Commission for purchase of short-term power as per sub Regulation 6(a) above. However, on annual basis, the average rate of such short-term power purchase should not be more than the said ceiling rate approved by the Commission for purchase of short-term power.

**79. Variation in power purchase**

- (1) Any power purchased by Distribution Licensee over and above the requirement of power approved by the Commission or variation in the mix of power purchased in any year shall be considered by the Commission if it is for reasons beyond the reasonable control of the Distribution Licensee and the resultant financial loss or gain shall be adjusted in next years' tariff.
- (2) Any financial gain or loss on account of power purchased by the Distribution Licensee in any year over and above the approved level and not covered by sub-Regulation (1) shall be borne by the Distribution Licensee.

**80. Transmission charges**

Transmission and wheeling charges to be paid by a Licensee for transmission or wheeling of power purchased by it shall be considered as per tariff determined by the appropriate Commission. Transmission and wheeling charges paid for energy sold outside the State shall not be considered as expenses.

**81. NLDC/RLDC/SLDC charges**

NLDC/RLDC/SLDC charges as determined by the Appropriate Commission shall be considered as expenses. SLDC charges paid for energy sold outside the State shall not be considered as expenses for determining tariff.

**82. Operation and Maintenance expenses**

The norms for O&M expenses for Distribution Licensees to recover O&M expenses have been fixed for the first year of the Control Period (i.e., FY 2019-20), as given below:

- (1) Employee Expenses and Administrative and General Expenses:

(a) Employee Expenses: - 48 paise per unit of sale

(b) Administrative and General Expenses: - 6.5 paise per unit of sale

Employee Expenses norms and Administrative and General Expenses norms for each subsequent year shall be escalated by escalation rate as specified in Regulation 24:

Provided that terminal liabilities based on actuarial valuation, over and above the normative O&M Expenses, subject to prudence check shall be allowed separately. The Commission may allow recovery of such terminal liabilities through tariff in Rs/kWh.

(2) Repairs and Maintenance Expenses:

R&M Expenses for each year (n) of Control Period:  $k \times GFA_{n-1} \times (1+ER)$

Where,

'k' is a constant (expressed in %) governing the relationship between R&M expenses and Gross Fixed Assets (GFA) for the (n-1)<sup>th</sup> year and shall be considered as 1.2%;

'GFA' is the average value of the Gross Fixed Assets of the (n-1)<sup>th</sup> year;

'ER' means the escalation rate as specified in Regulation 24;

'n' is the year for which R&M expenses is to be determined.

**83. Interest on Consumer Security Deposit**

Interest shall be allowed only on the amount held in cash as security deposit as per the provisions of Rajasthan Electricity Regulatory Commission (Electricity supply Code and Connected Matters), Regulations, 2004, as amended from time to time:

Provided that at the time of Truing-up, the interest on the amount of security deposit for the year shall be considered on the basis of the actual interest paid by the Licensee during the year, subject to prudence check by the Commission.

**84. Tariff income**

Income from supply of electricity to consumers shall be assessed based on current tariff applicable to different category of consumers and the quantity of electricity estimated to be sold to them.

**85. Determination of Wheeling Charge and Retail Supply Tariff**

- (1) While determining wheeling charges and tariff for retail supply of electricity, the Commission shall be guided by the provisions of Sections 61 and 62 of the Act.
- (2) The Commission, shall not, while determining the tariff, show undue preference to any consumer of electricity but may differentiate according to consumer's load factor, voltage, total consumption of electricity during any specified period or time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.

**86. Wheeling charges**

- (1) For determination of Wheeling charges of a Distribution Licensee, shall be computed by deducting the following amounts from its aggregate revenue requirement worked out under Regulation 76 (1):
  - (a) Cost of power purchase as per Regulation 78,
  - (b) Interest payable on security deposits of consumers,
  - (c) Transmission & SLDC charges and
  - (d) 10% of O&M expenses
- (2) Wheeling charges so worked out shall be apportioned supply voltage-wise on the basis of fixed asset at each voltage level, as submitted by the Distribution Licensee:



Provided that the Distribution Licensee shall work out the voltage wise asset allocation and losses within one year of coming into force of these Regulations or the extended period as approved by the Commission. The Distribution Licensee shall also give the basis of allocation of fixed costs to the different voltage levels, energy supplied at each voltage level and prevalent distribution losses at each voltage level in the petition for determination of wheeling charges:

Provided further that till the time Distribution Licensee submits the actual allocation of fixed assets at each voltage level, the Commission shall apportion fixed assets at each voltage level on the basis of length of distribution lines in ckt. km and transformation capacity in MVA as furnished by the Distribution Licensee or any other methodology which it feels appropriate,

- (3) **Payment of wheeling charges:**  
 Wheeling charges may consist of the following or any one or combination thereof:
  - (a) Fixed charge in Rs. per month per KW of contracted power.
  - (b) A charge in Rs. per KWh of energy wheeled separately for
    - (i) Wire business
    - (ii) Installation, operation and maintenance of meters, metering system and any other equipment at consumer's premises.
    - (iii) Billing & collection of payment
    - (iv) Consumer services.
  - (c) Connectivity fee.
  - (d) Reactive energy charge / incentive
- (4) While determining wheeling charges for open access customers, the total electricity wheeled on the Licensee's distribution system including his own shall be taken into account.
- (5) The average technical losses for each voltage level shall be determined and considered in the determination of wheeling charges and distribution losses as applicable and be applicable in kind to the users of the distribution system of that voltage level.

## **87. Rebate/Surcharge mechanism**

### **(1) Voltage Rebate**

The Consumers availing electricity at higher voltage shall be entitled to receive suitable rebate, as stipulated by the Commission. The rebate mechanism for the ensuing year shall be stipulated in the retail supply tariff Order of that year.

### **(2) Advance payment and Pre-paid meter Rebate**

The Commission shall consider suitable incentive mechanism for the consumers who make advance payment or avail electricity through pre-paid meters.

### **(3) Other Rebates/Surcharges and Incentives**

The Commission shall consider suitable incentive/surcharge mechanism for the consumers for other matters like power factor, load factor, etc., as stipulated in the retail supply tariff Order of that year.

## **88. Fuel Surcharge**

- (1) The Fuel Surcharge (FS) chargeable by the Distribution Licensee from its consumers for any quarter, shall be computed as per the following formula:

$$FS = \frac{C + I_p}{E} \quad (\text{Rs./ kWh})$$

Where

$C$  (in Rs. Lakh) = {(Weighted Average Variable Cost of all sources of power purchase during previous quarter in Rs/kWh – Base Weighted Average Variable Cost of all sources of power purchase as approved under Tariff Order for the year under operation in Rs/kWh) x Corresponding Power Purchase from all sources during previous quarter in LU}

$E$  (in Lakh Units) = Energy sold (metered plus estimated) during previous quarter.

$I_p$  (In Rs. Lakh) = Under-recovery of fuel surcharge in the previous quarter.

Note:

- (i) Quarter referred under this formula shall correspond to financial quarter (s) viz. Q1 (Apr. to Jun), Q2 (Jul to Sept), Q3 (Oct to Dec), and Q4 (Jan to Mar).
  - (ii) The variation in power purchase cost due to Charges for Deviations incurred by Distribution Licensee as per Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014 as amended from time to time and Hydro based generation and other unapproved purchases shall not be covered under fuel surcharge adjustment.
  - (iv) For the generation stations/power purchase sources, which have single part tariff, 1/3 of the tariff shall be considered as fixed charge and 2/3 of the tariff shall be considered as energy charge for adjustment under this formula.
  - (v) The cost and quantum of power purchase shall be based on bills paid/credits received during the previous quarter irrespective of period to which it pertains and shall include arrears or refunds, if any, for previous period, not considered earlier.
- (2) The rate of Fuel Surcharge shall be worked out in Rs./kWh rounded off to the next second decimal place.
  - (3) The Fuel Surcharge per unit for any quarter shall not exceed 15% of weighted average power purchase cost per unit approved by the Commission, or such other ceiling as may be stipulated by the Commission from time to time:

Provided that Distribution Licensee may file a separate Petition before the Commission for approval of recovery of the Fuel Surcharge over and above ceiling limit as specified above.

- (4) The total Fuel Surcharge recoverable, as per the formula specified above, shall be recovered from the actual sales and in case of un-metered consumers, it shall be recoverable based on estimated sales to such consumers, calculated in accordance with such methodology as may be stipulated by the Commission.

#### **89. Cross subsidy**

- (1) The average cost of supply and realization from a category of consumer shall form the basis of estimating the extent of cross subsidy for that consumer category.
- (2) The Commission shall endeavour to determine the tariff in such a manner that it progressively reflects the average cost of supply and the extent of cross subsidy to any consumer category is within maximum range of +/- 20% of average cost of supply:

Provided that consumers below poverty line who consume below specified level say 50 units per month may receive special support through cross-subsidy. Tariff for such designated group of consumers shall be at least 50% of the average cost of supply.

**90. Cross-subsidy Surcharge**

The surcharge payable by consumers opting for open access on the network of the Distribution Licensee or transmission Licensee will be determined by the Commission as per the following Formula:

$$S = T - [C / (1 - L / 100) + D + R]$$

Where,

S is the surcharge;

T is the Tariff payable i.e., Average Billing Rate of the relevant category of consumers;

C is the per unit weighted average cost of power purchase by the Licensee;

D is the aggregate of transmission, distribution and wheeling charges applicable to the relevant voltage level;

L is the aggregate transmission, distribution and commercial losses, expressed as percentage applicable to the relevant voltage level;

R is the per unit cost of carrying regulatory assets or unfunded gap recognised by the Commission:

Provided that if S is computed to be negative as per above Formula, S shall be considered as zero.

**91. Additional Surcharge**

Additional Surcharge shall be governed by the relevant provisions of RERC (Terms and Conditions for Open Access) Regulations, 2016, as amended from time to time.

**92. Regulatory Asset**

Regulatory Asset shall be created only under exceptional circumstances:

Provided that as and when created, the Regulatory Asset shall be amortised in such a manner that it is co-terminus with the MYT Control Period as far as possible and carrying cost shall be allowed to be added to the revenue requirement of each year till such time the Regulatory Asset is fully amortised.

**93. Parallel Operation Charges**

- (1) The connectivity of CPP to Grid or State transmission system shall be governed by the connection conditions stipulated under State Grid Code and Connectivity Regulations of Central Electricity Authority notified in accordance with sub-section (b) of Section 73 of the Act.
- (2) The Commission may stipulate from time to time the 'parallel operation charges' to be applicable for parallel operation of the CPP with the grid separately.

## **Part - VIII Miscellaneous**

### **94. Power to amend**

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

### **95. Power to remove difficulties**

If any difficulty arises in giving effect to the provisions of these Regulations, the Commission may either suo-motu or on a petition, by general or specific order, make such provisions not inconsistent with the provisions of the Act, as may appear to be necessary for removing the difficulty.

**By Order of the Commission,**

**Secretary**

**Annexure-1**  
**(Ref. Regulation 22)**

**Depreciation Rates**

Description of Assets		Depreciation (%) (Salvage Value 10%) Straight line Method)
A.	Land owned under full title	--
B.	Land held under lease	
a)	for investment in the land	3.34
b)	for cost of clearing the site	3.34
c)	Land for reservoir in case of Hydro Generating Station	3.34
C.	Assets Purchased New:	
a.	Plant and machinery in Generating Stations including plant foundations	
	i) Hydro-electric	5.28
	ii) Steam electric, NHRS & Waste Heat Recovery Boilers/Plants	5.28
	iii) Diesel-electric and gas plant	5.28
b.	Cooling towers and circulating water systems	5.28
c.	Hydraulic works forming part of Hydro-electric systems including:-	
	i) Dams, Spillways, weirs, canals, reinforced concrete Flumes and siphons	5.28
	ii) Reinforced concrete pipelines and surge tanks, steel pipelines, sluice gates, steel surge (tanks) hydraulic control valves and other hydraulic works	5.28
d.	Building & civil engineering works of permanent character	
	i) Offices & showrooms	3.34
	ii) Containing thermo-electric generating plant	3.34
	iii) Containing hydro-electric generating plant	3.34
	iv) Temporary erection such as wooden structures	100
	v) Roads other than kutcha roads	3.34
	vi) Others	3.34
e.	Transformers, transformer (Kiosk) sub-station equipment & other fixed apparatus (including plant foundations)	
	i) Transformers (including foundations) having a rating of 100 kilo volt amperes and over	5.28
	ii) Others	5.28
f.	Switchgear including cable connections	5.28
g.	Lightning arrestors	
	i) Station type	5.28
	ii) Pole type	5.28
	iii) Synchronous condenser	5.28
h.	Batteries	5.28

Description of Assets		Depreciation (%) (Salvage Value 10%) Straight line Method)
	i) Underground Cable including joint boxes and disconnected boxes	5.28
	ii) Cable duct system	5.28
i.	Overhead lines including supports:	
	i) Lines on fabricated steel operating at nominal voltages higher than 66 kV	5.28
	ii) Lines on steel supports operating at nominal voltages higher than 13.2 kilovolts but not exceeding 66 kilovolts	5.28
	iii) Lines on steel or reinforced concrete supports	5.28
	iv) Lines on treated wood supports	5.28
j.	Meters	5.28
k.	Self-propelled vehicles	9.50
l.	Air conditioning plants:	
	i) Static	5.28
	ii) Portable	9.50
m.	i) Office furniture and fittings	6.33
	ii) Office equipments	6.33
	iii) Internal wiring including fittings and apparatus	6.33
	iv) Street light fittings	5.28
n.	Apparatus let on hire	
	i) Other than motors	9.50
	ii) Motors	6.33
o.	Communication equipment:	
	i) Radio and high frequency carrier system	6.33
	ii) Telephone lines and telephones	6.33
p.	I.T. equipments	15.00
q.	IT/SCADA software	9.00
r	Assets not otherwise provided for in the Schedule	5.28

**Annexure-2**  
**(Ref. Regulation 45(3))**

**Station Heat Rate**

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 <sup>2</sup> )	150	170	170	247	247	270	270
SHT/RHT (degree C)	535/535	537/537	537/565	537/565	565/593	593/593	600/600
Type of BFP	Electrical driven	Turbine driven	Turbine driven	Turbine driven	Turbine driven	Turbine driven	Turbine driven
Maximum turbine cycle heat rate (kcal/kWh)	1955	1950	1935	1900	1850	1810	1800
Min. boiler efficiency							
Sub-bituminous Indian Coal	0.86	0.86	0.86	0.86	0.86	0.865	0.865
Bituminous Imported Coal	0.89	0.89	0.89	0.89	0.89	0.895	0.895
Max. Design Unit Heat rate (kcal/kWh)							
Sub-bituminous Indian Coal	2273	2267	2250	2222	2151	2105	2081
Bituminous Imported Coal	2197	2191	2174	2135	2078	2034	2022

Provided 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 further that where Unit heat rate has not been guaranteed but turbine cycle heat rate and boiler efficiency are guaranteed separately by the same supplier or different suppliers, the Unit design heat rate shall be arrived at by using guaranteed turbine cycle heat rate and boiler efficiency:

Provided 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.

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 boiler feed pumps.

## Abbreviations

A&G	:	Administrative & General
BFP	:	Boiler Feed Pump
CDM	:	Clean Development Mechanism
CFBC	:	Circulating Fluidised Bed Combustion
COD	:	Commercial Operation Date
CPI	:	Consumer Price Index
CPP	:	Captive Power Plant
DC	:	Declared Capacity
DDUGJY	:	Deendayal Upadhyaya Gram Jyoti Yojana
EHV	:	Extra High Voltage
FERV	:	Foreign Exchange Rate Variation
FY	:	Financial Year
GCV	:	Gross Calorific Value
GIS	:	Gas Insulated Sub-station
HVAC	:	High Voltage Alternate Current
HVDC	:	High Voltage Direct Current
IC	:	Installed Capacity
IDC	:	Interest During Construction
IPDS	:	Integrated Power Development Scheme
kV	:	Kilo Volt
kWh	:	Kilo Watt Hour
kCal	:	Kilo calorie
MCLR	:	Marginal Cost of Funds-based Lending Rate
MCR	:	Maximum Continuous Rating
MMH	:	Mini and Micro Hydel
MYT	:	Multi Year Tariff
MVA	:	Mega Volt Ampere
MVA <sub>r</sub>	:	Mega Volt Ampere Reactive
MW	:	Mega-Watt
NLDC	:	National Load Despatch Centre
O&M	:	Operation and Maintenance
PPA	:	Power Purchase Agreement
R&M	:	Repair and Maintenance
R&R	:	Rehabilitation and Resettlement



R-APDRP	:	Restructured Accelerated Power Development and Reforms Programme
RERC	:	Rajasthan Electricity Regulatory Commission
RGVY	:	Rajiv Gandhi Grameen Vidyutikaran Yojana
RLDC	:	Regional Load Despatch Centre
RLNG	:	Regassified Liquid Natural Gas
SLDC	:	State Load Despatch Centre
SHR	:	Station Heat Rate
TSC	:	Transmission Service Charge
WPI	:	Wholesale Price Index