

Bhopal, the 20th June 2024

No. **1508/MPERC/2024**. In exercise of powers conferred by Section 181 (2)(h) and 181 (2) (zd) read with Sections 36 and 61 of the Electricity Act, 2003 (No. 36 of 2003), and all other powers enabling it in this behalf, the Madhya Pradesh Electricity Regulatory Commission hereby makes the following Regulations, namely: -

**MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION
(TERMS AND CONDITIONS FOR DETERMINATION OF TRANSMISSION TARIFF)
(REVISION - V), REGULATIONS, 2024
{RG – 28 (V) OF 2024}**

PREAMBLE

The control period of five years from FY 2019-20 to FY 2023-24 of the MPERC (Terms and conditions for determination of Transmission Tariff) Regulations, 2020 (RG -28 (IV) of 2020) has ended on 31/03/2024. Now the Commission has decided to specify the principles and methodologies for a control period of five years in line with the control period notified by the Central Electricity Regulatory Commission. Therefore, in order to specify the terms and conditions for determination of Transmission tariff for the next control period of five years from FY 2024-25 to FY 2028-29, it is necessary to make these Regulations:-

CHAPTER - I

PRELIMINARY

1. Short title and commencement:

- (1.1) These Regulations shall be called “**Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) (Revision - V), Regulations, 2024 {RG – 28 (V) of 2024}**”.
- (1.2) These Regulations shall extend to the whole of the State of Madhya Pradesh.
- (1.3) These Regulations shall come in force with effect from 1st April 2024 and unless reviewed earlier or extended by the Commission, shall remain in force for a period of five years i.e. up to 31st March 2029.

2. Scope and extent of application:

These Regulations shall apply in all cases of determination of intra - State Transmission Tariff under Section 62 of the Electricity Act, 2003 to be charged by the Transmission Licensee to Distribution Licensees/ Open Access Customers, to whom the capacity of the Transmission System has been allotted under MPERC (Terms & Conditions of Intra- State Open Access in MP) Regulations, 2005, as amended from time to time:

Provided, the tariff of all new intra-state transmission projects costing above a threshold limit of Rs. 400 Crore (Rupees Four Hundred Crore), shall be determined through transparent bidding process and shall be adopted by the Commission under Section 63 of the Electricity Act' 2003 after prudence check in accordance with the relevant Guidelines (and its amendments) issued by the Ministry of Power, Government of India.

3. Norms of Operation to be ceiling norms:

For removal of doubts, it is clarified that the norms of operation specified under these Regulations are the ceiling norms and this shall not preclude the Transmission Licensee and Beneficiaries from agreeing to improved norms of operation and in such cases, the improved norms as agreed to shall be applicable for determination of Tariff.

4. Definitions and Interpretations:

(4.1) In these Regulations, unless the context otherwise requires,

(1) "Act" means the Electricity Act, 2003 (36 of 2003);

(2) "Accounting Statement" means the following statements for each financial year, namely-

(i) Balance sheet, prepared in accordance with the form contained in the Companies Act, 2013 as 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;

(ii) Profit and loss account, complying with the requirements contained in the Companies Act, 2013 as amended from time to time or in the relevant Schedule of its amendment;

(iii) Cash flow statement, prepared in accordance with the relevant Accounting Standard on Cash Flow Statement of the Institute of Chartered Accountants of India;

- (iv) Report of the Auditor(s) of the licensee;
 - (v) Directors' report and accounting policies;
 - (vi) Cost records, if any, prescribed by the Central Government under the Companies Act, 2013 as amended from time to time;
- (3) **“Additional Capital expenditure”** means the capital expenditure incurred, or projected to be incurred after the date of commercial operation of the project by the transmission licensee in accordance with the provisions of these Regulations;
- (4) **“Additional Capitalisation”** means the additional capital expenditure admitted by the Commission after prudence check, in accordance with these Regulations;
- (5) **“Admitted capital cost”** means the capital cost which has been allowed by the Commission for servicing through tariff after due prudence check in accordance with the relevant tariff Regulations;
- (6) **“Auditor”** means an auditor appointed by a transmission licensee in accordance with the provisions of the Companies Act, 2013 (18 of 2013) as amended from time to time or any other extant law being in force;
- (7) **“Availability”** in relation to a Transmission System for a given period shall mean the time in hours during that period the Transmission System is capable of transmitting electricity at its declared voltage to the delivery point and shall be expressed in percentage of total hours in the given period;
- (8) **“Beneficiary”** means long term, medium term and short term Transmission Customers, for whom tariff is determined under these Regulations;
- (9) **“Capital Cost”** means the capital cost as determined in accordance with Regulation 19 & 20 of these Regulations;
- (10) **“Change in Law”** means occurrence of any of the following events:
- (i) enactment, bringing into effect or promulgation of any new Indian law; or
 - (ii) adoption, amendment, modification, repeal or re-enactment of any existing Indian law; or

- (iii) change in interpretation or application of any Indian law by a competent court, Tribunal or Indian Governmental Instrumentality which is the final authority under law for such interpretation or application; or
 - (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; or
 - (v) coming into force or change in any bilateral or multilateral agreement/treaty between the Government of India and any other Sovereign Government having implication for the Transmission System regulated under these Regulations;
- (11) **“Commission”** means the Madhya Pradesh Electricity Regulatory Commission;
- (12) **“Communication System”** includes Communication System of Madhya Pradesh Power Transmission Company Ltd. covered under State Load Dispatch and Communication (SLD&C) scheme, SCADA, Wide Area Measurement System (WAMS), Fiber Optic Communication System, Remote Terminal Unit, Private Automatic Branch Exchange, Radio Communication System and auxiliary power supply system etc. used for managing intra-state transmission of electricity;
- (13) **“Competitive Bidding”** means a transparent process for procurement of equipment, services and works in which bids are invited by the project developer by open advertisement covering the scope and specifications of the equipment, services and works required for the project, and the terms and conditions of the proposed contract as well as the criteria by which bids shall be evaluated, and shall include domestic competitive bidding and international competitive bidding;
- (14) **“Cut-off Date”** means the last date of the calendar month after thirty six months from the date of commercial operation of the project;
- (15) **“Day”** means a calendar day consisting of 24 hours period starting at 0000 hours;
- (16) **“Date of Commercial Operation”** or **‘COD’** shall have the same meaning as defined in M. P. Electricity Grid Code, 2024;
- (17) **“De-capitalisation”** for the purpose of the tariff under these Regulations, means reduction in Gross Fixed Assets of the project as admitted by the Commission corresponding to inter-unit transfer of assets or the assets taken out from service;
- (18) **“De-commissioning”** means removal from service of a transmission system including communication system or element thereof, after it is certified by the Central Electricity

Authority or any other authorized agency, either on its own or on an application made by the project developer or the beneficiaries or both, that the project cannot be operated due to non-performance of the assets on account of technological obsolescence or uneconomic operation or a combination of these factors;

- (19) **“Element”** means an asset which has been distinctively defined under the scope of the transmission project in the Investment Approval such as transmission lines including line bays and line reactors, substations, bays, compensation device, Interconnecting Transformers;
- (20) **“Existing Project:”** means a project which has been declared under commercial operation on a date prior to 01.04.2024;
- (21) **“Expansion project”** shall include any addition of new capacity or augmentation of the existing transmission system;
- (22) **“Expenditure Incurred”** means the fund, whether the equity or debt or both, actually deployed and paid in cash or cash equivalent, for creation or acquisition of a useful asset and does not include commitments or liabilities for which no payment has been released;
- (23) **“Extended Life”** means the life of a transmission system or element thereof beyond the period of useful life, as may be determined by the Commission on case to case basis;
- (24) **“Force Majeure”** for the purpose of these Regulations means the events or circumstances or combination of events or circumstances including those stated below which partly or fully prevents the transmission licensee to complete the project within the time specified in the Investment Approval, and only if such events or circumstances are not within the control of the transmission licensee and could not have been avoided, had the transmission licensee taken reasonable care or complied with prudent utility practices:
- a. Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years; or
 - b. Any act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action; or
 - c. Industry wide strikes and labour disturbances having a nationwide impact in India;
or

- d. Delay in obtaining statutory approval for the project except where the delay is attributable to project developer;
- (25) **“Grid Code”** means the Madhya Pradesh Electricity Grid Code (Revision-III), 2024 as amended from time to time or subsequent re-enactment thereof;
- (26) **“Implementation Agreement”** means any agreement or covenant entered into (i) between the transmission licensee and the generating company or (ii) between transmission licensee and developer of the interconnected transmission system for the execution of transmission projects in a coordinated manner, laying down the project implementation schedule and mechanism for monitoring the progress of the projects;
- (27) **“Indian Governmental Instrumentality”** means the Government of India, the State Government and any ministry or department or board or agency controlled by the Government of India or the State, or quasi-judicial authority constituted under the relevant statutes in India;
- (28) **“Investment Approval”** means approval by the Board of the transmission licensee or the State Government or any other competent authority conveying administrative sanction for the project including funding of the project and the timeline for the implementation of the project:
- Provided that the date of Investment Approval shall be reckoned from the date of the resolution of the Board of the transmission licensee where the Board is competent to accord such approval and from the date of sanction letter of competent authority in other cases;
- (29) **“Kilowatt-Hour” or ‘kWh’** means a unit of electrical energy, measured in one kilowatt or one thousand watts of power produced or consumed over a period of one hour;
- (30) **“Long-Term Transmission Customer”** means a person having a Long Term Transmission Service agreement for the period exceeding five years with the Transmission Licensee including deemed Transmission Licensee for use of intra/inter-State Transmission System by paying transmission charges and the term may be used interchangeably with the term Designated ISTS Customers (DICs);
- (31) **“Medium-Term Transmission Customer”** means a person having a medium-term lien for the period exceeding three months and upto five years over an inter/ intra-State Transmission System by virtue of paying transmission charges;

- (32) **“New Project”** means the transmission system or element thereof achieving its commercial operation on or after 1.4.2024;
- (33) **“Officer”** means an Officer of the Commission;
- (34) **“Operation and Maintenance Expenses”** or **‘O&M expenses’** means the expenditure incurred for operation and maintenance of the project, or part thereof, and includes the expenditure on manpower, maintenance, repairs and maintenance spares, administrative and general expenses;
- (35) **“Original Project Cost”** means the capital expenditure incurred by the transmission licensee within the original scope of the project up to the cut-off date and as admitted by the Commission;
- (36) **“Project”** means the transmission system including communication system;
- (37) **“Prudence Check”** means scrutiny of reasonableness of any cost or expenditure incurred or proposed to be incurred in accordance with these Regulations by the transmission licensee;
- (38) **‘Quarter’** means the period of three months commencing on the first day of April, July, October and January of each financial year in case of an existing project, and in case of a new project, in respect of the first quarter, from the date of commercial operation to the last day of June, September, December or March, as the case may be;
- (39) **“Rated Voltage”** means the manufacturer’s design voltage at which the transmission system is designed to operate and includes such lower voltage at which any transmission line is charged or for the time being charged, in consultation with long-term customers;
- (40) **“Reference Rate of Interest”** means the one-year marginal cost of funds based lending rate (MCLR) of the State Bank of India (SBI) issued from time to time plus 325 basis points;
- (41) **“Regular Service”** means putting into use a Transmission System or element thereof after successful trial operation and a certificate to that effect has been issued by the State Load Despatch Centre;
- (42) **“Scheduled Commercial Operation Date or ‘SCOD’”** shall mean the date(s) of commercial operation of a transmission system or element thereof and associated

communication system as indicated in the Investment Approval or as agreed in power purchase agreement or transmission service agreement whichever is earlier;

- (43) **“Secretary”** means Commission Secretary;
- (44) **“Short-term Transmission Customer”** in the context of usage of Transmission System means a person having short term lien for a period upto three months over an inter/intra-State Transmission System by virtue of paying transmission charges;
- (45) **“Start Date or Zero Date”** means the date indicated in the Investment Approval for commencement of implementation of the project and where no such date has been indicated, the date of Investment Approval shall be deemed to be Start Date or Zero Date;
- (46) **“Tariff”** means the schedule of charges for transmission of electricity together with terms and conditions thereof;
- (47) **“Tariff Period”** means the period for which Tariff is determined by the Commission under these Regulations;
- (48) **“Transmission Line”** shall have the same meaning as defined in sub-Section (72) of Section 2 of the Act;
- (49) **“Transmission Service Agreement”** means the agreement entered into between the Transmission Licensee and the Long-Term / Medium-Term Transmission Customer(s) and shall include the Bulk Power Transmission Agreement;
- (50) **“Transmission System”** means a line or a group of lines with or without associated sub-station, equipment associated with transmission lines and sub-stations identified under the scheme as per the Investment Approval(s) and shall include associated communication system;
- (51) **“Transmission Licensee”** means a Licensee authorized to establish or operate transmission lines;
- (52) **“Transmission System Availability Factor”** means Availability of the Transmission System as certified by the State Load Despatch Centre;
- (53) **“Trial Run or Trial Operation”** in relation to transmission system shall have the same meaning as specified in M. P. Electricity Grid Code, 2024;

(54) “Useful life” in relation to a Transmission System from the COD shall mean the following, namely:

(i)	AC and DC sub-station	25 years
(ii)	Gas Insulated Substation (GIS)	25 years
(iii)	Transmission line (including HVAC)	35 years
(iv)	Optical Ground Wire (OPGW)	15 years
(v)	IT system, SCADA and Communication system excluding OPGW	7 years

Provided that the extension of life of the projects beyond the completion of their useful life shall be decided by the Commission on case to case basis; and

(55) “Year” means a financial year beginning on 1st April and ending on 31st March:

Provided that the first year in case of a new project shall commence from the date of commercial operation and end on the immediately following 31st March.

(4.2) The words and expressions used in these Regulations and not defined herein but defined in the Act or any other Regulation of the Commission shall have the mean assigned to them under the Act or any other Regulation of the Commission.

Chapter – II

COMMERCIAL OPERATION

5. Commercial Operation:

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

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

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

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

6. Treatment of mismatch in date of commercial operation:

- i) In case of mismatch of the date of commercial operation of the generating station and the transmission system, the liability for the transmission charges shall be determined as under:
 - a) Where the generating station has not achieved the commercial operation as on the date of commercial operation of the associated transmission system (which is not before the SCOD of the generating station) and the Commission has approved the date of commercial operation of such transmission system in terms of the Regulation 5 of these Regulations, the generating company shall be liable to pay the transmission charges of the associated transmission system to the transmission licensee as determined by the Commission, till the generating station or unit thereof achieves commercial operation.
 - b) Where the associated transmission system has not achieved the commercial operation as on the date of commercial operation of the concerned generating station or unit thereof (which is not before the SCOD of the transmission system), the transmission licensee shall make alternate arrangement for the evacuation from the generating station at its own cost, failing which, the transmission licensee shall be liable to pay the transmission charges to the generating company, till the transmission system achieves the commercial operation.

- ii) In case of mismatch of the date of commercial operation of the transmission system and the transmission system of other transmission licensee, the liability for the transmission charges shall be determined as under:
- (a) Where an interconnected transmission system of other transmission licensee has not achieved the commercial operation as on the date of commercial operation of the transmission system (which is not before the SCOD of the interconnected transmission system) and the Commission has approved the date of commercial operation of such transmission system in terms of Regulation 5 of these Regulations, the other transmission licensee shall be liable to pay the transmission charges of the transmission system to the transmission licensee till the interconnected transmission system achieves commercial operation.
 - (b) Where the transmission system has not achieved the commercial operation as on the date of commercial operation of the interconnected transmission system of other transmission licensee (which is not before the SCOD of the transmission system), the transmission licensee shall be liable to pay the transmission charges of such interconnected transmission system to the other transmission licensee or as may be determined by the Commission till the transmission system achieves the commercial operation.

CHAPTER – III

PROCEDURE FOR TARIFF DETERMINATION

7. Tariff Determination:

- (7.1)** Tariff in respect of a transmission system may be determined for the whole of the transmission system or element thereof or associated communication system:

Provided that:

- i. In case of commercial operation of all elements of a transmission system prior to 01.04.2024, the transmission licensee shall file consolidated Multi Year Tariff petition in respect of the entire transmission system for the purpose of determination of tariff for the period 01.04.2024 to 31.3.2029:
- ii. In case of commercial operation of elements of the transmission system on or after 01.04.2024, the transmission licensee shall file a consolidated Multi Year Tariff petition, in accordance with the provisions of the Regulations, combining all elements of the transmission system:

(7.2) The Commission shall determine Tariff and charges including terms and conditions thereof under Section 62 of the Act read with Section 86 and Section 36 in the following cases: -

(i) Intra-State transmission of electricity;

(ii) Rates and charges for use of intervening transmission facilities, where these cannot be mutually agreed upon by the Licensees.

(7.3) The Commission may also determine Tariff for inter State transmission of electricity involving the territories of two States under Section 64(5) of the Act.

8. Principles for Tariff determination:

(8.1) These Regulations intend to encourage Transmission Licensee to operate on sound commercial principles. The Transmission Licensee shall be required to prepare their Accounting Statements as per the Company Law requirement, which shall be regularly submitted before the Commission as detailed in Regulation 11.1 of these Regulations. The incentive allowed to the Transmission Licensee shall depend upon performance relative to the benchmark levels of the operating parameters fixed by the Commission. Only prudent capital expenditure shall be considered for inclusion in the asset base.

(8.2) The Multi Year Tariff principles adopted in these Regulations seek to promote competition, adoption of commercial principles, efficient working of the Transmission Licensee and protection of Beneficiaries' interest. The operating and cost parameters for the Tariff Period have been prescribed after duly considering the past performance. The allowable Tariffs shall be determined in accordance with these norms. The Transmission Licensee is allowed to retain savings as a reward for performance better than those prescribed in these Regulations. This is expected to incentivize the Transmission Licensee for efficient performance and economical use of resources.

(8.3) Only those investments and capital expenditure that are in accordance with the guidelines issued by the Commission in this regard shall be allowed to be recovered through Tariff. This shall ensure prudent investments by the Transmission Licensee.

9. Application for determination of Tariff:

(9.1) An application for determination of Tariff shall be made in accordance with the manner specified in these Regulations and shall be accompanied by such fees as may be specified.

- (9.2)** The Commission shall, at all times, have the authority, either Suo-Motu or on a petition filed by any interested or affected party, to determine the Tariff, including terms and conditions thereof, of Transmission Licensee and shall initiate the process of such determination in accordance with the procedure as may be specified:

Provided that the proceedings for such determination of Tariff including terms and conditions thereof, shall be in the same manner as set out in the Conduct of Business Regulations as amended from time to time.

- (9.3)** The Transmission Licensee shall provide, as part of the application to the Commission, information in such formats, in hard and soft copy, as may be required by the Commission.

- (9.4)** The Commission or the Secretary or any Officer designated for the purpose by the Commission may, upon scrutiny of the application, require the Transmission Licensee to furnish such additional information or particulars or documents as may be considered necessary for the purpose of processing the application.

- (9.5)** Upon receipt of the complete application accompanied by all requisite information, particulars and documents in-compliance with all the requirements, the application shall be deemed to have been received and the Commission or the Secretary or the Officer designated for the purpose by the Commission shall intimate to the Transmission Licensee that the application is ready for publication, in such abridged form and manner, as may be specified [Refer MPERC (Details to be furnished and fees payable by licensee or generating company for determination of Tariff and manner of making an application) Regulation 2004 as amended from time to time]. The Transmission Licensee shall place all the details of the petition filed before the Commission on its website not later than seven working days of its acceptance by the Commission.

- (9.6)** The Transmission Licensee shall furnish to the Commission all such books and records (or certified true copies thereof), including the Accounting Statements, operational and cost data, as may be required by the Commission for determination of Tariff.

- (9.7)** The Commission may, if deemed necessary, make available to any person, at any time, such information as has been provided by the Transmission Licensee to the Commission including abstracts of such books and records (or certified true copies thereof):

Provided that the Commission may, by order, direct that any information, documents and papers/materials maintained by the Commission, shall be confidential or privileged and shall not be available for inspection or supply of certified copies, and the Commission may also direct that such document, papers or materials shall not be used in any manner except as specifically authorized by the Commission.

- (9.8) If the petition is inadequate in any respect as required under these Regulations, the application shall be returned to the Transmission Licensee for resubmission of the petition within one month after rectifying the deficiencies as may be pointed out by the staff of the Commission.
- (9.9) If the information furnished in the petition is in accordance with the Regulations and is adequate for carrying out prudence check of the claims made, the Commission shall consider the suggestions and objections, if any, received from the respondents within one month from the date of filing of the petition (or any time period specified by the Commission) and any other person including the consumers or consumer associations. The Commission shall issue the tariff order after hearing the petitioner, the respondents and any other person specifically permitted by the Commission.

10. Methodology for Determination of Tariff and True-up:

- (10.1) The Commission shall define Tariff Period for the Transmission Licensee from time to time. The principles for Tariff determination shall be applicable for the duration of the Tariff Period. The principles that guide tariff determination for the next tariff period shall be valid for the period from 1st April 2024 to 31st March 2029.
- (10.2) Tariff in respect of Transmission Licensee shall be determined for the entire Transmission System of the Licensee.
- (10.3) A Transmission Licensee shall file a petition at the beginning of the Tariff Period. A review shall be undertaken by the Commission to scrutinize and true up the Tariff on the basis of the capital expenditure and additional capital expenditure actually incurred in the Year for which the true up is being requested. However, in such true up, any abnormal and uncontrollable variation can also be considered at the Commission's discretion.
- (10.4) The Commission shall carry out truing up of tariff of Transmission Licensee based on the following controllable and uncontrollable factors:
- a. The "controllable factors" shall include and be not limited to the following:
- (i) Efficiency in the implementation of the project not involving approved change in scope of such project, change in statutory levies or change in law or force majeure events; and
 - (ii) Delay in execution of the project which may be attributed to contractor or supplier or agency of the transmission licensee.

b. The “uncontrollable factors” shall include and be not limited to the following:

- (i) Force Majeure;
- (ii) Change in Law; and
- (iii) Time and cost over-run on account of land acquisition except where the delay is attributable to the transmission licensee.

(10.5) Time and cost over-run on account of uncontrollable factors may be considered by the Commission after prudence check:

Provided that no additional impact of time over-run or cost over-run shall be allowed on account of non-commissioning of the associated Transmission System by SCOD, as the same should be recovered through Implementation Agreement between the Generating company and the Transmission Licensee:

Provided further that if the Transmission System is not commissioned on SCOD of the generating station the Transmission Licensee shall arrange the evacuation from the generating station at its own arrangement and cost till the associated Transmission System is commissioned.

(10.6) The financial gain by the Transmission Licensee on account of controllable parameters shall be shared between the Transmission Licensee & the Long-Term Customers in the ratio of 50:50 respectively on monthly basis with annual reconciliation.

(10.7) The financial gains and losses by the Transmission Licensee on account of the uncontrollable parameters shall be passed on to the long term Transmission Customers.

(10.8) If the Tariff already recovered is more than the Tariff determined after true-up, the Transmission Licensee shall refund to the Long-term transmission customers the excess amount so recovered as specified in the Regulation 10.10 of these Regulations.

(10.9) If the Tariff already recovered is less than the Tariff determined after true-up, the Transmission Licensee shall recover from the Long-term transmission customers, the under recovered amount as specified in the Regulation 10.10 of these Regulations subject to adhering to the timelines specified by the Commission for filing of True-up Application. In case, it is found that the filing of True-up is delayed due to the reasons attributable to the Transmission Licensee, the under recovery shall not bear any interest. However, if the delay in filing of True-up petition for a reasonable time is considered by the Commission on the application of the licensee the under recovery of amount as specified in the Regulation 10.10 of these Regulations shall be applicable.

(10.10) The amount under-recovered or over-recovered along with simple interest at the rate equal to the 1 year SBI MCLR plus 100 basis points as on 1st April of the respective year, shall be recovered or refunded by the Transmission Licensee, in a maximum of six equal monthly instalments from the date of the tariff order issued by the Commission.

(10.11) Where the capital cost approved by the Commission on the basis of projected additional capital expenditure exceeds the actual trued up additional capital expenditure incurred on a year to year basis by more than 10%, the transmission licensee shall refund to the beneficiaries or the long term customers as the case may be, the tariff recovered corresponding to the additional capital expenditure not incurred, as approved by the Commission, along with simple interest at 1.20 times of the rate worked out on the basis of 1 year SBI MCLR plus 100 basis points as prevalent on 1st April of the respective year.

(10.12) The Multi Year Tariff filing in hard and soft copy shall be filed in accordance with and in the formats prescribed in MPERC (Details to be furnished and fees payable by licensee or generating company for determination of Tariff and manner of making an application) Regulations, 2004 (as amended from time to time) within 60 days of notification of these Regulations.

(10.13) The Transmission Licensee shall make an application in hard and soft copy in the same formats prescribed in MPERC (Details to be furnished and fees payable by licensee or generating company for determination of Tariff and manner of making an application) Regulations, 2004 (as amended from time to time) for carrying out truing up exercise by 15th November each year.

11. Submission of Annual Accounts, Reports, Information, etc.:

(11.1) Every Transmission Licensee shall submit Annual Statement of Accounts and such other information as may be specified or required by the Commission. In addition to the submission of Annual Accounts, the Transmission Licensee shall be required to comply with the information requirements of various Regulations and license conditions notified by the Commission from time to time.

(11.2) In the absence of submission of the required information by the Transmission Licensee, the Commission may initiate Suo-motu proceedings.

12. Periodicity of Tariff determination:

(12.1) No Tariff or part of any Tariff may ordinarily be amended, more frequently than once in any

Year. The Commission may, after satisfying itself for reasons to be recorded in writing, may allow for the revision of Tariff.

- (12.2) Subject to other provisions of these Regulations, the expenses allowed to be recovered for any Year, shall be subject to adjustments in any tariff to be determined for the subsequent period if the Commission is satisfied that such adjustment for the excess amount or shortfall in the amount actually realized or expenses incurred is necessary and the same is not on account of any reason within the control of the Transmission Licensee.

13. Hearings:

The procedure of hearing on the Tariff application shall be as specified in MPERC (Details to be furnished and fees payable by licensee or generating company for determination of Tariff and manner of making an application) Regulations 2004, as amended from time to time.

14. Orders of the Commission:

- (14.1) After the petition has been filed, the Commission may require the Transmission Licensee to furnish any further information, particulars, documents, public records, etc as the Commission may consider appropriate to enable it to review the petitioner's calculations, assumptions and assertions.
- (14.2) After receipt of information or otherwise, the Commission may make appropriate orders in accordance with the provisions of the MPERC (Details to be furnished and fees payable by licensee or generating company for determination of Tariff and manner of making an application) Regulations, 2004 as amended from time to time.

15. Charging of Tariff other than approved:

Any Transmission Licensee found to be charging a Tariff different from the one approved by the Commission from Beneficiaries shall be deemed to have not complied with the directions of the Commission and shall be liable to be proceeded against under Section 142 of the Act without prejudice to any other liability becoming due from the licensee under any other provisions of the Act. In case the amount recovered exceeds the amount allowed by the Commission, the excess amount so recovered shall be refunded to the Beneficiaries who have paid such excess charges, along with simple interest for that period equivalent to the Reference Rate of Interest as on 01.04.2024 or as on 01st April of the year during the tariff period FY 2024-25 to FY 2028-29 besides any other penalty that may be imposed by the Commission.

16. Annual review of Transmission Licensee:

The Transmission Licensee shall submit to the Commission annual statements of its performance and accounts including latest report of audited accounts.

CHAPTER - IV

TARIFF STRUCTURE

17. Petition for determination of Tariff:

- (17.1) The Transmission Licensee shall file a petition accompanied by such forms as may be specified for determination of Tariff complying with provisions of Chapter III of these Regulations and MPERC (Details to be furnished and fee payable by licensee or generating company for determination of Tariff and manner of making application) Regulations 2004, as amended from time to time, based on the principles specified by the Commission in these Regulations. These principles shall be implemented from the date of commencement of these Regulations i.e., 01st April 2024 and shall be applicable for the period upto 31st March 2029.
- (17.2) The Transmission Licensee shall continue to provisionally bill the Beneficiaries or the Long-term Customers based on Tariff approved by the Commission and applicable as on 31.03.2024 for the period starting from 01.04.2024 till approval of Tariff by the Commission in accordance with these Regulations:

Provided that where the Tariff Provisionally billed exceeds or falls short of the final Tariff approved by the Commission under these Regulations, the Transmission Licensee shall refund to or recover from the Beneficiaries or the Transmission Customers, as the case may be, within six months from the date of determination of final Tariff under these Regulations alongwith simple interest at the rate equal to the Reference Rate of Interest as on 01.04.2024 or as on 1st April of the year during the tariff period of FY 2024-25 to FY 2028-29.

18. Transmission Tariff:

The Tariff for transmission of electricity on intra-State Transmission System shall comprise transmission charge for recovery of annual fixed cost consisting of the components specified in Regulation 23 of these Regulations.

19. Capital Cost and Capital structure:

(19.1) Capital cost for a Project shall include:

- (a) The Expenditure incurred or projected to be incurred on original scope of work, including interest during construction and financing charges, any gain or loss on account of foreign exchange rate variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, upto the Date of Commercial Operation of the Project, as admitted by the Commission after prudent check, shall form the basis for determination of Tariff.

- (b) Capitalized initial spares subject to the following ceiling norms:
 - (i) Transmission line - 1.00%

 - (ii) Transmission Sub-station (Green Field) - 4.00%

 - (iii) Transmission Sub-station (Brown Field) - 6.00%

 - (iv) Series Compensation devices - 4.00%

 - (v) Gas Insulated Sub-station (GIS)
 - Green Field - 5.00%
 - Brown Field - 7.00%

 - (vi) Communication System - 3.5%

 - (vii) Static Synchronous Compensator - 6.00%

Provided that if the generating station has any transmission equipment forming part of the generation project, the ceiling norms for initial spares for such equipments shall be as per the ceiling norms specified for Transmission System under these Regulations.

- (c) Additional capital expenditure determined under Regulation 20:

Provided that the assets forming part of the Project but not in use shall be taken out of the Capital Cost.

Provided further that the revenue if any, earned by the Transmission Licensee by using the assets before the date of Commercial operation shall be adjusted in the Capital Cost,

- (19.2)** The capital cost admitted by the Commission after prudent check shall form the basis for determination of Tariff:

Provided that in case of individual transmission project, prudent check of capital cost may be carried out based on the bench mark norms specified by the Central Commission from time to time:

Provided further that in cases where bench mark norms specified by the Central Commission are not applied, prudent check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of Tariff:

Provided also that where the Transmission Service Agreement provide for ceiling of actual expenditure, the capital expenditure admitted by the Commission shall take into consideration such ceiling for determination of Tariff:

Provided also that in case of the Existing Projects, the capital cost admitted by the Commission prior to 01.04.2024 and the additional capital expenditure projected to be incurred for the respective Year of the Tariff period during FY 2024-25 to FY 2028-29, as may be admitted by the Commission, shall form the basis for determination of capital cost:

Provided also that in cases where benchmark norms have been specified, the Transmission Licensee shall submit reasons for exceeding the capital cost from benchmark norms to the satisfaction of the Commission for allowing cost above bench mark norms:

- (19.3)** Scrutiny of the cost estimates by the Commission shall be with regard to the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology, and such other matters. The Commission may obtain expert advice as deemed necessary.

(19.4) Restructuring of capital cost in terms of relative share of equity and loan component shall be permitted during the Tariff Period provided it does not affect Tariff adversely. Any benefit from such restructuring shall be passed on to long term intrastate Open Access customers of Transmission Licensee in a ratio of 1:1.

(19.5) Interest during construction (IDC):

- (i) Interest during construction shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds upto actual COD.
- (ii) In case of additional costs on account of IDC due to delay in achieving the actual COD, Transmission Licensee shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds:

Provided that if the delay is not attributable to the Transmission Licensee and is due to uncontrollable factors as specified in Regulation 10 of these Regulations, IDC may be allowed after due prudence check:

Provided further that only IDC on actual loan may be allowed beyond the actual COD to the extent, the delay is found beyond the control of the Transmission Licensee after due prudence check and taking into account prudent phasing of funds.

(19.6) Incidental Expenditure during Construction (IEDC):

- (i) Incidental expenditure during construction shall be computed from the zero date and after taking into account pre-operative expenses upto actual COD:

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

- (ii) In case of additional costs on account of IEDC due to delay in achieving the SCOD, the Transmission Licensee shall be required to furnish detailed justification with supporting documents for such delay including the details of incidental expenditure during the period of delay and liquidated damages recovered or recoverable corresponding to the delay:

Provided that if the delay is not attributable to the Transmission Licensee and is due to uncontrollable factors as specified in Regulation 10, IEDC may be allowed after due prudence check:

Provided further that where the delay is attributable to an agency or contractor or supplier engaged by the Transmission Licensee, the liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost.

- (iii) In case the time over-run beyond SCOD is not admissible after due prudence, the increase of capital cost on account of cost variation corresponding to the period of time overrun may be excluded from capitalization irrespective of price variation provisions in the contracts with supplier or contractor of the Transmission Licensee.

20. Additional capitalization and De-capitalization:

(20.1) The capital Expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the Date of Commercial Operation and upto the cut-off date may be admitted by the Commission, subject to prudence check:

- (a) Un-discharged liabilities recognized to be payable at a future date;
- (b) Works deferred for execution;
- (c) Liabilities to meet award of arbitration or for compliance of order or decree of a court of law;
- (d) Change in law or compliance of any existing law; and
- (e) Procurement of initial capital spares within the original scope of work, subject to the provisions of Regulation 19.1 (b):

Provided that the details of works asset wise/ work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and works deferred for execution shall be submitted along with the application for determination of tariff.

(20.2) The capital expenditure of the following nature actually incurred or projected to be incurred after the Cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

- (a) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- (b) Change in law or compliance of any existing law;
- (c) Any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolesce of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, replacement of porcelain insulator with polymer insulators, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of Transmission System;
- (d) Any expenses to be incurred on account of need of higher security and safety of the plant as advised or directed by the appropriate Government Agencies of statutory authorities responsible for national security/ internal security;
- (e) Any liability for works executed prior to cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc; and
- (f) Any 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 if any expenditure has been claimed under Renovation and Modernization (R&M), repairs and maintenance under Operation & Maintenance (O&M) expenses, same expenditure cannot be claimed under this Regulation.

(20.3) The following shall be excluded or removed from the capital cost of the projects:

- a) The assets forming part of the project, but not in use, as declared in the tariff petition;

- b) De-capitalised Asset after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

- c) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation.

(20.4) In case of de-capitalization of assets of a Transmission Licensee, the original cost of such asset as on the date of de-capitalization shall be deducted from the value of Gross Fixed Assets and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalization takes place, duly taking into consideration the year in which it was capitalized

21. Renovation and Modernization:

(21.1) The Transmission Licensee for meeting the expenditure on Renovation and Modernization (R&M) for the purpose of extension of life beyond the originally recognized useful life for the purpose of tariff of the Transmission System, shall make an application before the Commission for approval of the proposal with a Detailed Project Report giving complete scope, justification, cost-benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost including foreign exchange component, if any, consent of Beneficiaries and any other information considered to be relevant by the Transmission Licensee:

Provided that, the transmission system intending to undertake renovation and modernization (R&M) shall be required to obtain the consent of the beneficiaries for such R&M and submit the same along with the petition.

(21.2) Where the Transmission Licensee makes an application for approval of its R&M proposal, the approval shall be granted after due consideration of reasonableness of the cost estimates,

financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, and such other factors as may be considered relevant by the Commission.

(21.3) After completion of R&M, the Transmission Licensee 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 the estimates of Renovation and Modernization expenditure and life extension, and after writing off the original amount of the replaced assets and deducting the accumulated depreciation including advance against depreciation already recovered from the Original project cost, shall form the basis for determination of Tariff.

22. Debt-equity ratio:

(22.1) For a Project declared under commercial operation on or after 1.4.2024, the debt-equity ratio would be considered as 70:30 as on CoD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

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

Explanation-The premium, if any, raised by the Transmission Licensee, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the Project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilized for meeting the capital expenditure of the Transmission System.

(22.2) In case of the Transmission System including Communication System declared under commercial operation prior to 1.4.2024 debt-equity ratio allowed by the Commission for determination of Tariff for the period ending 31.3.2024 shall be considered.

- (22.3) In case the Transmission System including Communication System declared under commercial operation prior to 01.04.2024, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.03.2024, the Commission shall approve the debt: equity ratio based on actual information provided by the Transmission Licensee.
- (22.4) Any Expenditure incurred or projected to be incurred on or after 1.4.2024 as may be admitted by the Commission as additional capital expenditure for determination of Tariff and Renovation and Modernization expenditure for life extension shall be serviced in the manner specified in Regulation 22.1.

CHAPTER – V

TRANSMISSION TARIFF & COMPUTATION OF ANNUAL FIXED COST

23. Annual Fixed Cost:

The Annual Fixed Cost (AFC) of a Transmission System including Communication System shall consist of the following components –

- (a) Return on equity;
- (b) Interest and finance charges on loan capital;
- (c) Depreciation;
- (d) Lease/ Hire Purchase charges;
- (e) Operation and Maintenance expenses; and
- (f) Interest on Working capital

24. Return on Equity:

- (24.1) Return on equity shall be computed in rupee terms, on the paid up equity capital determined in accordance with Regulation 22.

(24.2) Return on equity shall be computed at the base rate of 15.50 % to be grossed up as per clause 24.3 of these Regulations:

Provided that:

- (i) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the Transmission System is found to be declared under Commercial Operation without commissioning of any of the data telemetry and Communication System up to Load Dispatch Centre or protection system:
- (ii) as and when the above requirement is found lacking in a Transmission System based on the report submitted by SLDC, return on equity shall be reduced by 1% for the period for which the deficiency continues:

(24.3) The base rate of return on equity as allowed by the Commission under Regulation 24.2 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respective financial year in line with the provisions of the relevant Finance Acts by the concerned Transmission Licensee, the actual income tax on other income stream including deferred tax (i.e., income of non-transmission business) shall not be considered for the calculation of “effective tax rate”.

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

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

Where “t” is the effective tax rate in accordance with clause 24.3 of this Regulation, and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of or non-transmission business, as the case may be, and the corresponding tax thereon. In case of Transmission Licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.

Illustration. -

- (i) In case of the Transmission Licensee paying Minimum Alternate Tax (MAT) say, @ 21.55% including surcharge and cess:
Rate of return on equity = $15.50 / (1 - 0.2155) = 19.758\%$
- (ii) In case of the Transmission Licensee paying normal corporate tax including surcharge and cess:
- (a) Estimated Gross Income from transmission business for FY2024-25 is Rs 1000 Crore.
- (b) Estimated Advance Tax for the year on above is Rs 240 Crore
- (c) Effective Tax Rate for the year 2024-25 = $\text{Rs } 240 \text{ Crore} / \text{Rs } 1000 \text{ Crore} = 24\%$
- (d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$
- (iii) The Transmission Licensee shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period FY2024-25 to FY 2028-29 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the Transmission Licensee. Any under-recovery or over-recovery of grossed up rate on return on equity after true up, shall be recovered or refunded to the Long Term Transmission Customers on year to year basis.

(24.5) In case the Transmission Licensee has engaged in any other regulated or unregulated Business or Other Business, the actual tax paid on income from any other regulated or unregulated Business or Other Business shall be excluded for the calculation of effective tax rate:

Provided that if no Income Tax has been paid by the Company as a whole, then the effective Income Tax rate shall be considered as “Nil”.

(24.6) At the time of true up of tariff, the effective tax rate shall be considered based on actual tax paid as per latest Audited accounts, subject to prudence check by the Commission. The net effect of gross up of return of equity shall be allowed up to the limit of the amount of actual tax paid by the Transmission Licensee.

25. Interest and finance charges on loan capital:

- (25.1) The loans arrived at in the manner indicated in Regulation 22 shall be considered as gross normative loan for calculation of interest on loan.
- (25.2) The normative loan outstanding as on 1.4.2024 shall be worked out by deducting the cumulative repayment as admitted by the Commission upto 31.3.2024 from the gross normative loan.
- (25.3) The repayment for each year of the tariff period FY 2024-25 to FY 2028-29 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro-rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalization of such asset.
- (25.4) Notwithstanding any moratorium period availed by the Transmission Licensee, 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.
- (25.5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment or interest capitalized:
- Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:
- Provided further that if the Transmission System, does not have actual loan, then the weighted average rate of interest of the Transmission Licensee as a whole shall be considered.
- (25.6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.
- (25.7) The Transmission Licensee shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the Beneficiaries and the net savings shall be shared between the Beneficiaries and the Transmission Licensee, in the ratio of 1:1.

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

(25.9) In case of dispute, any of the parties may make an application in accordance with the MPERC (Conduct of Business) Regulation, 2016 as amended from time to time:

Provided that the Transmission Customers shall not withhold any payment on account of the interest claimed by the Transmission Licensee during the pendency of any dispute arising out of re-financing of loan.

26. Depreciation:

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

- (a) Depreciation shall be computed from the date of commercial operation of a Transmission System including Communication System or element thereof. In case of the tariff of a Transmission System including Communication System for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial Operation of the Transmission System taking into consideration the depreciation of individual units or elements thereof:

Provided that effective date of Commercial Operation shall be worked out by considering the actual date of Commercial Operation and installed capacity or capital cost of all elements of the Transmission System, for which single tariff needs to be determined.

- (b) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple elements of Transmission System, weighted average life Transmission System shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.
- (c) The approved/accepted cost shall include foreign currency funding converted to equivalent rupee at the exchange rate prevalent on the date of foreign currency actually availed.
- (d) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

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

Provided further that any depreciation disallowed on account of lower availability of the transmission system shall not be allowed to be recovered at a later stage during the useful life or the extended life.

- (e) Land other than land held under lease shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.
- (f) Depreciation shall be calculated annually based on 'Straight Line Method' and at rates specified in **Appendix-I** to these Regulations for the assets of the Transmission System.

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of Commercial Operation, shall be spread over equitably in the balance useful life of the assets:

Provided further that the Consumer contribution or capital subsidy/ grant etc for asset creation shall be treated as per the Accounting Rules notified and in force from time to time.

- (g) In case of the existing Projects, the balance depreciable value as on 1.4.2024 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2024 from the gross depreciable value of the assets. The rate of Depreciation shall be continued to be charged at the rate specified in **Appendix-I**.
- (h) 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.
- (i) In case of de-capitalization of assets in respect of Transmission System or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services.

27. Lease / Hire Purchase charges

Lease charges for assets taken on lease by Transmission Licensee shall be considered as per lease agreement provided that the charges are considered reasonable by the Commission.

28. Operation & Maintenance expenses

- (28.1) Operation and Maintenance Expenses shall be determined for the Tariff period based on normative O&M expenses specified by the Commission in these Regulations.
- (28.2) The cost components for employee, repair & maintenance expenses and administrative and general expenses are considered as per Regulations 38.1 of these Regulations. The norms for O&M expenses have been calculated by considering Lines (Rs Lakh / 100 Ckt. Km / annum) and Bays (Rs Lakh / Bay / annum). The MPERC's methodology varies from that of CERC. The Commission has passed True up Orders for 4 years i.e. till FY 2022-23 of the 5-year Control period from FY 2018-19 to FY 2023-24 of the MPERC (Terms & Conditions for Determination of Transmission Tariff) Regulations, 2020. It was observed that the actual O&M expenses have been 83% (i.e. 0.83) of the normative O&M expenses. This ratio is rounded off to 0.85. The figures of O & M norms provided for FY 2023-24 in MPERC Regulations, 2020 were reworked by considering multiplication factor of 0.85. Thereafter, the figures for FY 2023-24 were escalated by escalation factor @ 5.25 % per annum (as considered by the CERC) for determining the norms for FY 2024-25.
- (28.3) The normative O&M expenses for the subsequent years of control period have been specified by escalating the O&M norms arrived for FY 2024-25 with the escalation factor @ 5.25 % per annum as considered by the CERC for Transmission Licensees in its Tariff Regulations, 2024 for the respective financial years to arrive at permissible O&M expenses for each year of the Control Period.
- (28.4) The employee expenses considered in the above Operation and Maintenance expenses are excluding the pension and other terminal benefits. The Commission has notified MPERC (Terms and Condition for allowing Pension and Terminal Liabilities of Personal of Board and Successor Entities) Regulations, 2012 (G-38 of 2012) on 20th April 2012. The expenses towards pension and terminal liabilities shall be allowed as per the provisions of aforesaid Regulations. The Security Expenses for transmission system shall be allowed separately after prudence check.
- (28.5) Increase in O&M charges on account of war, insurgency or changes in laws, or like eventualities where the Commission is of the opinion that an increase in O&M charges is justified, may be considered by the Commission for such specific period.

- (28.6) Any saving achieved by a Transmission Company in any Year shall be allowed to be retained by it. The Transmission Company shall bear the loss if it exceeds the targeted O&M expenses for that Year.

29. Interest charges on working capital

- (29.1) Rate of interest on working capital shall be on normative basis and shall be considered as the Reference Rate of Interest as on 1.4.2024 or as on 1st April of the year during the tariff period FY 2024-25 to FY 2028-29 in which the Transmission System including Communication System or element thereof is declared under commercial operation, whichever is later.
- (29.2) Interest on working capital shall be payable on normative basis as calculated in accordance with Regulation 29.1 above or as per actual expenses incurred by the Licensee under this head, whichever is less, after prudence check in true up petition.

30. Foreign Exchange Rate Variation (FERV)

- (30.1) The Transmission Licensee may hedge foreign exchange exposure in respect of the interest on foreign currency loan and repayment of foreign loan acquired for the Transmission System, in part or full at the discretion of the Transmission Licensee.
- (30.2) Every Transmission Licensee shall recover the cost of hedging of Foreign Exchange Rate Variation corresponding to the normative foreign debt, in the relevant Year on year-to-year basis as expense in the period in which it arises and extra rupee liability corresponding to such Foreign Exchange Rate Variation shall not be allowed against the hedged foreign debt.
- (30.3) To the extent the Transmission Licensee is not able to hedge the foreign exchange exposure, the extra rupee liability towards interest payment and loan repayment corresponding to the normative foreign currency loan in the relevant Year shall be permissible provided it is not attributable to the Transmission Licensee or its suppliers or contractors.
- (30.4) The Transmission Licensee shall recover the cost of hedging and Foreign Exchange Rate Variation on year-to-year basis as income or expense in the period in which it arises.

31. Tax on Income

- (31.1) Tax on Income streams of the Transmission Licensee shall not be recovered separately from the Transmission Customers:

32. Tariff income

- (32.1) Income from all charges determined by the Commission for transmission of electricity shall be considered as Tariff income. Tariff income shall include transmission charge, reactive energy charge and other charges as may be specified by the Commission.

33. Non-Tariff Income

- (33.1) Income as per schedule for other non-tariff income provided under MPERC (Details to be furnished by licensee or generating company for determination of Tariff and manner of making an application) Regulations, 2004 as amended from time to time, shall be classified under 'Non-Tariff Income'. The non-tariff income shall include income from investments, Fixed and other deposits and any other non-tariff income.

Provided that the interest or dividend earned from investments made out of Return on Equity corresponding to the regulated business of the Transmission Licensee shall not be included in Non-Tariff Income:

- (33.2) Fifty percent of the income from other sources like parallel operation charges, open access, excess capacity billed over the allocated capacity, point of connection charges, any income over and above the ARR, etc which are recognized as income in the Audited accounts and which are not under litigation, shall also be considered as non-tariff income.
- (33.3) Revenue from other business shall be treated as income to the extent authorized by the Commission under Section 41 of the Act. In case the Transmission Licensee engages in telecommunication business, 50% of the revenue from such business in a given financial year shall be utilized for reducing its charges.

34. Late payment surcharge:

- (34.1) In case the payment of any bill for charges payable under these regulations is delayed by a beneficiary or long term customer as the case may be, beyond a period of 45 days from the date of presentation of bills, a late payment surcharge as specified in the Ministry of Power – Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 as amended from time to time shall be levied by the transmission licensee.

Provided that in case a different LPS mechanism is provided in the TSA / Agreement, the same shall be governed by the provisions of that TSA / Agreement.

- (34.2) Unless otherwise agreed by the parties, the charges payable by a beneficiary or long term customer shall be first adjusted towards a late payment surcharge on the outstanding charges and, thereafter, towards monthly charges billed by the transmission licensee, starting from the longest overdue bill.

35. Rebate:

- (35.1) For payment of bills of the transmission licensee through letter of credit on presentation or through National Electronic Fund Transfer (NEFT) or Real Time Gross Settlement (RTGS) payment mode within a period of 5 days of presentation of bills by the transmission licensee, a rebate of 1.50% shall be allowed.

Provided that in case a different Rebate mechanism is provided in the TSA / Agreement, the same shall be governed by the provisions of that TSA / Agreement.

Explanation: In case of computation of '5 days', the number of days shall be counted consecutively without considering any holiday. However, in case the last day or 5th day is an official holiday, the 5th day for the purpose of Rebate shall be construed as the immediate succeeding working day (as per the official State Government's calendar, where the Office of the Authorized Signatory or Representative of the Beneficiary, for the purpose of receipt or acknowledgement of Bill is situated).

- (35.2) Where payments are made on any day after 5 days and within a period of 30 days of presentation of bills by the generating company or the transmission licensee, a rebate of 1% shall be allowed.

36. Business Plan and Capital Investment:

- (36.1) The Transmission Licensee shall file a detailed capital investment plan, financing Plan and physical targets in accordance with guidelines issued by the Commission in this regard for meeting the requirement of load growth, reduction in transmission losses, improvement in quality of supply, reliability, metering etc.

- (36.2) The Capital Investment plan shall show separately, on-going Projects that will spill in to the Year under review and new Project (along with justification) that will commence but may be completed within or beyond the Tariff Period. The Transmission Licensee shall enter into Long-term agreements with Beneficiaries for whom the proposed capital works

(schemes) will provide exclusive benefit for up-stream and down-stream interconnections. Such specific schemes shall be submitted to the Commission for its approval only after the agreements with the Beneficiaries have been executed. The facility shall be made available to such Long-term Beneficiaries and Distribution Licensees only after they enter into Long-term agreement for use of transmission capacity with the Transmission Licensee.

- (36.3)** The Commission shall consider and approve the Licensee's capital investment plan for which the Licensee shall be required to provide relevant technical and commercial details. The Licensee shall get the Capital Investment Plan approved by the Commission before filing the Tariff application.
- (36.4)** The proportion for debt and equity for the approved capital investment shall be as per Regulation 22.

CHAPTER – VI

TRANSMISSION SYSTEMS

37. Norms of operation

- (37.1) Normative Annual Transmission System Availability factor (NATAF):** for recovery of full transmission charges shall be as under:

AC system: 98.00 %

- (37.2) For incentive consideration:**

AC system: 98.50 %

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

Provided further that actual outage hours shall be considered for computation of availability up to two tripping per year. After two tripping in a year, for every tripping, an additional 12 hours of outage shall be considered in addition to the actual outage hours:

Provided also that in case of an outage of a transmission element affecting evacuation of power from a generating station, outage hours shall be multiplied by a factor of 2.

(37.3) Auxiliary Energy Consumption in the sub-station:

AC System:

The charges for auxiliary energy consumption in the AC sub-station for the purpose of air-conditioning, lighting and consumption in other equipment shall be borne by the transmission licensee and included in the normative operation and maintenance expenses.

38. Operation & maintenance (O&M) expenses:

(38.1) The O&M expenses comprise of employee cost, repairs & maintenance (R&M) cost and administrative & general (A&G) cost. The norms for O&M expenses have been fixed on the basis of circuit kilometers of transmission lines and number of bays in substation. These norms exclude Pension, Terminal Benefits, and arrears, if any, to be paid to employees, taxes payable to the Government and fee payable to MPERC. The Transmission Licensee shall claim the taxes payable to the Government, fees to be paid to MPERC and any arrears paid to employees separately as actuals. The claim of pension and terminal benefits shall be dealt-with as per Regulation 28.4:

Provided that the transmission licensee shall submit the assessment of the security requirement, estimated and actual security expenses and actual O&M expenses, at the time of truing up with appropriate justification.

The norms for O&M expenses per 100 ckt-km and per bay shall be as under:

Norms for O&M expenses per 100 Ckt. km and per bay

S. No.	Particulars	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
	Lines	Rs. Lakh / 100ckt km / annum				
1.	400 kV Lines	36.89	38.82	40.86	43.01	45.26
2.	220 kV Lines	34.44	36.25	38.15	40.16	42.27
3.	132 kV Lines	36.25	38.15	40.16	42.26	44.48
	Bays	Rs. Lakh / Bay / annum				
1.	400 kV Bay	11.05	11.63	12.24	12.88	13.56
2.	220 kV Bay	12.82	13.49	14.20	14.95	15.73
3.	132 kV Bay	12.86	13.54	14.25	15.00	15.79

(38.2) The total allowable O&M expenses for the Transmission Licensee shall be calculated by multiplying the average number of bays and 100 ckt-km of line length for the Year with the applicable norms for O&M expenses per bay and per 100 ckt-km, respectively. In support of its claim for allowable O&M expenses, the Licensee shall submit before the Commission, the actual or projected circuit kilometers of line lengths and number of bays for each voltage level separately for each Year of the Tariff Period as the case may be.

(38.3) The terminal benefits shall be paid as provided in Regulation 28.4.

39. Working capital:

For each Year of the Tariff Period working capital shall cover the following:

- (1) Maintenance spares @ 15% of the O&M expenses specified in Regulation 38;
- (2) Receivables equivalent to 45 days of transmission charges calculated on Target Availability Level; and
- (3) Operation and Maintenance expenses for one month.

40. Annual Transmission Charges (ATC):

(40.1) The total annual expenses and expected return on equity of a Transmission Licensees shall be worked out on the basis of stipulations in Regulations 19 to 31 read with Regulations 37 to 39.

(40.2) The Transmission Licensee shall be entitled to recover its Annual Transmission Charges (ATC) from beneficiaries as specified in Regulation 41 & 42.

41. Recovery of Fixed Charges:

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

(41.2) The Transmission charge (inclusive of incentive) payable for a calendar month for transmission system or part shall be computed for AC and DC system as under:

For AC system:

- a) For TAFM $n \leq 98.00\%$

$$\text{AFC} \times (\text{NDM}_n / \text{NDY}) \times (\text{TAFM}_n / 98.00\%)$$

- b) For TAFM n : $98.00\% < \text{TAFM}_n < 98.50\%$

$$\text{AFC} \times (\text{NDM}_n / \text{NDY}) \times (1)$$

- c) For TAFM n : $98.50\% < \text{TAFM}_n \leq 99.75\%$

$$\text{AFC} \times (\text{NDM}_n / \text{NDY}) \times (\text{TAFM}_n / 98.50\%)$$

- d) For TAFM $n \geq 99.75\%$

$$\text{AFC} \times (\text{NDM}_n / \text{NDY}) \times (99.75\% / 98.50\%)$$

Where,

AFC = Annual Fixed Cost specified for the year in Rupees

NDM n = Number of days in nth month

NDY = Number of days in the year

TAFM n = Transmission System availability factor for the nth month, in percent
computed in accordance with **Appendix - II**.

For HVDC bi-pole links and HVDC back-to-back Stations:

$$\text{TC}_1 = \text{AFC} \times (\text{NDM}_1 / \text{NDY}) \times (\text{TAFM}_1 / \text{NATAF})$$

$$\text{TC}_2 = \text{AFC} \times (\text{NDM}_2 / \text{NDY}) \times (\text{TAFM}_2 / \text{NATAF}) - \text{TC}_1$$

$$\text{TC}_3 = \text{AFC} \times (\text{NDM}_3 / \text{NDY}) \times (\text{TAFM}_3 / \text{NATAF}) - (\text{TC}_1 + \text{TC}_2)$$

$$\text{TC}_4 = \text{AFC} \times (\text{NDM}_4 / \text{NDY}) \times (\text{TAFM}_4 / \text{NATAF}) - (\text{TC}_1 + \text{TC}_2 + \text{TC}_3)$$

....

$$\text{TC}_{11} = \text{AFC} \times (\text{NDM}_{11} / \text{NDY}) \times (\text{TAFM}_{11} / \text{NATAF}) - (\text{TC}_1 + \text{TC}_2 + \dots + \text{TC}_{10})$$

$$\text{TC}_{12} = \text{AFC} \times (\text{TAFY} / \text{NATAF}) - (\text{TC}_1 + \text{TC}_2 + \dots + \text{TC}_{11});$$

If,

- (i) TAFM: $95.00\% < \text{TAFM} < 97.50\%$, then $\text{TAFM} = \text{NATAF}$;
- (ii) TAFM: $97.50\% \leq \text{TAFM} \leq 99.75\%$, then $\text{NATAF} = 97.50\%$; and
- (iii) For $\text{TAFM} \geq 99.75\%$, then $\text{TAFM} = 99.75\%$ and $\text{NATAF} = 97.50\%$.

Where,

- TC_n = Transmission charges inclusive of incentive up to the nth month
- AFC = Annual fixed cost specified for the year in rupees
- NATAF = Normative Annual Transmission Availability Factor in percentage
- NDM_n = No of days upto the end of nth month of the financial year
- NDY = No. of days in the year
- TAFM_n = Transmission availability factor upto the end of the nth month of the year
in percentage computed in accordance with Appendix –II
- TAFY = Transmission availability factor in percent for the year

42. Sharing and Payment of Transmission Charges by Beneficiaries

- (42.1)** If a Transmission System has been created for a particular Long-Term Transmission Beneficiary including dedicated transmission line(s) for a generating station, transmission charges for such Transmission System shall be payable by that Long-Term Transmission Beneficiary.
- (42.2)** For Intra-State Transmission System, the monthly transmission charges shall be pooled for sharing by Long-Term Transmission Customers in accordance with the following formula:

Transmission Charges for intra-state system payable for a month by a Long-term Transmission Customer of that Transmission System

$$= (AFC \times NDM / NDY) \times CL / SCL$$

Where

AFC = Annual Fixed cost specified for the Year, in Rupees

NDM = Number of days in a Month

NDY = Number of days in a Year

CL = Allotted Transmission Capacity to the Long-Term or Medium-Term Transmission Customer

SCL = Sum of the Allotted Transmission Capacities to all the Long-Term and Medium-Term Transmission Customers of the State Transmission System.

Provided that Long Term and Medium Term Transmission capacity contracted at the time of filing tariff and true-up petitions shall be considered in that Order.

- (42.3) Medium-term users of the Intra-State Transmission System shall pay the charge as per the aforementioned formula, in proportion to the MW for which Medium term usage has been approved by the State Transmission Utility for that month.
- (42.4) The short term Beneficiaries shall pay the applicable charges according to MPERC (Terms and Conditions for Intra-State Open Access in Madhya Pradesh) Regulations, 2021 and MPERC (Methodology for determination of Open Access Charges and Banking Charges for Green Energy and Open Access Consumers) Regulations, 2023 as amended from time to time.
- (42.5) Transmission charges corresponding to any plant capacity for which a Beneficiary has not been identified and contracted shall be paid by the concerned Generating Company.
- (42.6) Section 5.8.10 of the National Electricity Policy provides for efforts to reduce T&D losses. The Commission hereby sets the following trajectory based on loss trajectory prescribed in previous Regulations and the actual transmission loss of previous years, so that a reference value is available for benchmarking and for Tariff related issues:

Target Transmission Losses in Percentage

FY	2024-25	2025-26	2026-27	2027-28	2028-29
Percentage	2.75%	2.74%	2.73%	2.72%	2.71%

CHAPTER – VII
MISCELLANEOUS PROVISIONS

43. Clean Development Mechanism (CDM):

The proceeds of carbon credit from approved Clean Development Mechanism (CDM) project shall be shared in the following manner, namely-

- (a) 100% of the gross proceeds on account of CDM to be retained by the project developer in the first Year after the Date of Commercial Operation of the Transmission System
- (b) In the second Year, the share of the Beneficiaries shall be 10 % which shall be progressively increased by 10% every Year till it reaches 50%, where after the proceeds shall be shared in equal proportion, by the Transmission Licensee and the Beneficiaries.

44. Operational Norms to be ceiling norms:

Operational norms specified in these Regulations are the ceiling norms and shall not preclude the transmission licensee and the beneficiaries from agreeing to the improved norms and in case the improved norms are agreed to, such improved norms shall be applicable for determination of tariff.

45. Deviation from ceiling tariff:

- (a) Tariff determined in these Regulations shall be a ceiling tariff. The transmission licensee and beneficiaries may mutually agree to charge a lower tariff.
- (b) The transmission licensee may opt to charge the lower tariff for period not exceeding the validity of these Regulations on account of lower depreciation based on the requirement of repayment. In such case, the unrecovered depreciation on account of reduction of depreciation by the transmission licensee during useful life shall be allowed to be recovered after the useful life in these Regulations.
- (c) The transmission licensee may opt to charge the lower tariff for a period not exceeding the validity of these Regulations on agreeing to deviation from operational parameters, reduction in operation and maintenance expenses, reduced return on equity and incentive specified in these Regulations.

- (d) The deviation from the ceiling tariff specified by the Commission shall come into effect from the date agreed to by the transmission licensee and the beneficiaries.
- (e) The transmission licensee and the beneficiaries of a generating station shall be required to approach the Commission for charging lower tariff in accordance with these Regulations. The details of the accounts and the tariff actually charged shall be submitted at the time of true up.
- (f) Where the transmission licensee and its beneficiaries have mutually agreed to charge a lower tariff in accordance with these Regulations, the said agreed tariff shall not be revised upwards at the time of truing up based on the capital cost and additional capital expenditures in accordance with these Regulations:

Provided that where the trued up tariff is lower than the agreed tariff, the transmission licensee shall charge such trued-up tariff only:

Provided further that the difference between the agreed tariff and the trued-up tariff shall be settled between the parties in accordance with these Regulations.

46. Deviation from norms:

The transmission charges may also be determined in deviation of the norms specified in these Regulations subject to the conditions that;

- (a) The levelised Tariff over the useful life of the Project, calculated based on the discounting factor as notified by the CERC from time to time for the Projects under Section 63 of the Act, on the basis of the norms in deviation does not exceed the levelised Tariff calculated on the basis of the norms specified in these Regulations; and
- (b) Any deviation shall come into effect only after approval by the Commission, for which an application shall be made by the Transmission Licensee before filing tariff petition / ARR for determination of Tariff.

47. Power to remove difficulties:

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

48. Power to Relax:

The Commission, for reasons to be recorded in writing, may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.

49. Power to Amend:

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

50. Repeal and Savings:

(50.1) The Regulations namely “Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for determination of Transmission Tariff) (Revision-IV) Regulations, 2020 {RG-28 (IV) of 2020} published vide Notification No. 234/MPERC/2020 dated 06.02.2020 in the Gazette dated 14.02.2020 and read with all amendments thereto, as applicable to the subject matter of these Regulations are hereby superseded.

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

(50.3) Nothing in these Regulations shall bar the Commission from adopting, in conformity with the provisions of the Act, a procedure, which is at variance with any of the provisions of this Regulation, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient for dealing with such a matter or class of matters.

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

By order of the Commission
Dr. Umakanta Panda
Secretary

Appendix – I**Depreciation Schedule**

S. No.	Asset Particulars	Depreciation Rate (SLM) (Salvage Value = 10%)
A	Land under full ownership	0.00%
B	Land under lease	
(i)	For investment in the land	3.34%
(ii)	For cost of clearing the site	3.34%
	Assets purchased new	
(a)	Building & Civil Engineering works of	
(i)	Offices and showrooms	3.34%
(ii)	Temporary erections such as wooden structures	100.00%
(iii)	Roads other than Kutcha roads	3.34%
(iv)	Others	3.34%
(b)	Transformers, Kiosk, sub-station equipment & other fixed apparatus (including plant)	
(j)	Transformers including foundations having rating of 100 KVA and over	5.28%
(ii)	Others	5.28%
C	Switchgear including cable connections	5.28%
D	Lightning arrestor	
(i)	Station type	5.28%
(ii)	Pole type	5.28%
E	Synchronous condenser	5.28%
F	Batteries	5.28%
(i)	Underground cable including joint boxes and disconnected boxes	5.28%
(ii)	Cable duct system	5.28%
G	Overhead Lines on fabricated steel operating at terminal voltages of upto and higher than 66KV	5.28%
H	Meters	5.28%
I	Self propelled vehicles	9.50%
J	Air Conditioning Plants	
(i)	Static	5.28%
(ii)	Portable	9.50%
k(i)	Office furniture and furnishing	6.33%
k(ii)	Office equipment	6.33%
k(iii)	Internal wiring including fittings and apparatus	6.33%
k(iv)	Street Light fittings	5.28%
L	Apparatus let on hire	
(i)	Other than motors	9.50%
(ii)	Motors	6.33%
M	Communication equipment	
(i)	Radio and high frequency carrier system	6.33%
(ii)	Telephone lines and telephones, Fibre Optic	6.33%
N	I. T. equipments	15.00%
O	Any other assets not covered above	5.28%

Procedure for Calculation of Transmission System

Availability Factor for a Month

1. Transmission system availability factor for nth calendar month (“TAFPn”) shall be calculated by the respective transmission licensee, got verified by the concerned Regional Load Dispatch Centre (RLDC) and certified by the Member-Secretary, Regional Power Committee (RPC) of the region concerned, separately for each AC transmission system and grouped according to sharing of transmission charges. In case of AC system, transmission System Availability shall be calculated separately for each Regional Transmission System and inter-regional transmission system.
2. Transmission system availability factor for nth calendar month (“TAFPn”) shall be calculated by consider following:
 - i) **AC transmission lines:** Each circuit of AC transmission line shall be considered as one element;
 - ii) **Inter-Connecting Transformers (ICTs):** Each ICT bank (three single phase transformers together) shall form one element;
 - iii) **Static VAR Compensator (SVC):** SVC along with SVC transformer shall form one element;
 - iv) **Bus Reactors or Switchable line reactors:** Each Bus Reactors or Switchable line reactors shall be considered as one element;
 - v) **HVDC Bi-pole links:** Each pole of HVDC link along with associated equipment at both ends shall be considered as one element;
 - vi) **HVDC back-to-back station:** Each block of HVDC back-to-back station shall be considered as one element. If associated AC line (necessary for transfer of inter- regional power through HVDC back-to-back station) is not available, the HVDC back-to-back station block shall also be considered as unavailable;
 - vii) **Static Synchronous Compensation (“STATCOM”):** Each STATCOM shall be considered as separate element.
3. The availability of AC and HVDC portion of Transmission system shall be calculated by considering each category of transmission elements as under:

TAFMn (in %) for AC system:

$$= \frac{o \times AV_o + (p \times AV_p) + (q \times AV_q) + (r \times AV_r) + (u \times AV_u)}{(o + p + q + r + u)} \times 100$$

Where,

o	=	Total number of AC lines.
AV _o	=	Availability of o number of AC lines.
p	=	Total number of bus reactors/switchable line reactors
AV _p	=	Availability of p number of bus reactors/switchable line reactors
q	=	Total number of ICTs.
AV _q	=	Availability of q number of ICTs.
r	=	Total number of SVCs.
AV _r	=	Availability of r number of SVCs
u	=	Total number of STATCOM.
AV _u	=	Availability of u number of STATCOMs

TAFMn (in %) for HVDC System:

$$= \frac{\sum_{x=1}^S C_{xpb}(\text{act}) \times AV_{xpb} + \sum_{y=1}^T C_{ybtb}(\text{act}) \times AV_{ybtb}}{\sum_{x=1}^S C_{xpb} + \sum_{y=1}^T C_{ybtb}} \times 100$$

Where

C _{xpb} (act)	=	Total actual operated capacity of x th HVDC pole
C _{xpb}	=	Total rated capacity of x th HVDC pole
AV _{xpb}	=	Availability of x th HVDC pole
C _{ybtb} (act)	=	Total actual operated capacity of y th HVDC back-to-back station Block
AV _{ybtb}	=	Availability of y th HVDC back-to-back station block
S	=	Total no of HVDC poles
T	=	Total no of HVDC Back to Back blocks

- The availability for each category of transmission elements shall be calculated based on the weightage factor, total hours under consideration and non-available hours for each element of that category.

The formulae for calculation of Availability of each category of the transmission elements are as per **Appendix-III**. The weightage factor for each category of transmission elements shall be considered as under:

- For each circuit of AC line – Number of sub-conductors in the line multiplied by ckt-km;

- ii) For each HVDC pole- The rated MW capacity x ckt-km;
 - iii) For each ICT bank – The rated MVA capacity;
 - iv) For SVC- The rated MVAR capacity (inductive and capacitive);
 - v) For Bus Reactor/switchable line reactors – The rated MVAR capacity;
 - vi) For HVDC back-to-back station connecting two Regional grids- Rated MW capacity of each block; and
 - vii) For STATCOM – Total rated MVAR Capacity.
5. The transmission elements under outage due to following reasons shall be deemed to be available:
- i. Shut down availed for maintenance of another transmission scheme or construction of new element or renovation / upgradation / additional capitalization in existing system approved by the Commission. If the other transmission scheme belongs to the transmission licensee, the concerned RLDC / SLDC may restrict the deemed availability period to that considered reasonable by it for the work involved. In case of dispute regarding deemed availability, the matter may be referred to appropriate Authority within 30 days.
 - ii. Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the directions of concerned RLDC / SLDC.
6. For the following contingencies, outage period of transmission elements, as certified by the concerned RLDC / SLDC , shall be excluded from the total time of the element under period of consideration for the following contingencies:
- i) Outage of elements due to acts of God and force majeure events beyond the control of the transmission licensee. However, whether the same outage is due to force majeure (not design failure) will be verified by the concerned RLDC / SLDC . A reasonable restoration time for the element shall be considered by concerned RLDC / SLDC and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. RLDC / SLDC may consult the transmission licensee or any expert for estimation of reasonable restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available;

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

Provided that in case of any disagreement with the transmission licensee regarding reason for outage, same may be referred to appropriate authority within 30 days. The above need to be resolved within two months;

Provided further that where there is a difficulty or delay beyond sixty days, from the incidence in finalizing the recommendation, the concerned RLDC / SLDC shall allow the outage hours on provisional basis till the final view.

7. Time frame for certification of transmission system availability: (1) Following schedule shall be followed for certification of availability by concerned RLDC / SLDC:
- Submission of outage data by Transmission Licensees to RLDC/ constituents – By 5th of the following month;
 - Review of the outage data by SLDC / constituents and forward the same to respective RLDC – by 20th of the month;
 - Issue of availability certificate by respective RLDC – by 3rd of the next month.

FORMULAE FOR CALCULATION OF AVAILABILITY OF EACH CATEGORY OF TRANSMISSION ELEMENTS

For AC transmission system

$$AV_o(\text{Availability of } o \text{ no. of AC lines}) = \frac{\sum_{i=1}^o W_i(T_i - TN_{Ai})/T_i}{\sum_{i=1}^o W_i}$$

$$AV_q(\text{Availability of } q \text{ no. of ICTs}) = \frac{\sum_{k=1}^q W_k(T_k - TN_{Ak})/T_k}{\sum_{k=1}^q W_k}$$

$$AV_r(\text{Availability of } r \text{ no. of SVCs}) = \frac{\sum_{l=1}^r W_l(T_l - TN_{Al})/T_l}{\sum_{l=1}^r W_l}$$

$$AV_p(\text{Availability of } p \text{ no. of Switched Bus reactors}) = \frac{\sum_{m=1}^p W_m(T_m - TN_{Am})/T_m}{\sum_{m=1}^p W_m}$$

$$AV_u(\text{Availability of } u \text{ no. of STATCOMs}) = \frac{\sum_{n=1}^u W_n(T_n - TN_{An})/T_n}{\sum_{n=1}^u W_n}$$

$$AV_{x_{bp}}(\text{Availability of an individual HVDC pole}) = \frac{(T_x - TN_{Ax})}{T_x}$$

$$AV_{y_{btb}}(\text{Availability of an individual HVDC Back-to-back Blocks}) = \frac{(T_y - TN_{Ay})}{T_y}$$

For HVDC transmission system

For the new HVDC commissioned but not completed twelve months;

For first 12 months: $[(AV_{x_{bp}} \text{ or } AV_{y_{btb}}) \times 95\%/85\%]$, subject to ceiling of 95%.

Where,

- o = Total number of AC lines;
- AV_o = Availability of o number of AC lines;
- p = Total number of bus reactors/switchable line reactors;
- AV_p = Availability of p number of bus reactors/switchable line reactors;
- q = Total number of ICTs;
- AV_q = Availability of q number of ICTs;
- r = Total number of SVCs;
- AV_r = Availability of r number of SVCs;
- AV_u = Availability of u number of STATCOMs;

W_i = Weightage factor for i th transmission line;
 W_k = Weightage factor for k th ICT;
 W_l = Weightage factors for inductive & capacitive operation of l th SVC;
 W_m = Weightage factor for m th bus reactor;
 W_n = Weightage factor for n th STATCOM.

$T_i, T_k, T_l, T_m, T_n, T_x, T_y$ -The total hours of i th AC line, k th ICT, l th SVC, m th Switched Bus & n th STATCOM, x th HVDC pole, y th HVDC back-to-back blocks during the period under consideration (excluding time period for outages not attributable to transmission licensee for reasons given in Para 5 of the procedure)

$T_{NAi}, T_{NAk}, T_{NAL}, T_{NAM}, T_{NAn}, T_{NAx}, T_{NAY}$ - The non-availability hours (excluding the time period for outages not T_{NAL}, T_{NAM} , attributable to transmission licensee taken as deemed availability as for i th AC line, k th ICT, l th SVC, m th Switched Bus Reactor, n th STATCOM, x th HVDC pole and y th HVDC back-to-back block .