

Notified on 15.01.2016

Bhopal, the 13th January, 2016

No. 58-MPERC-2016 Whereas, the first control period of the Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations 2005 (G-28 of 2005) expired on 31st March, 2009, the Commission notified revision (RG-28(I) of 2009) of these Regulations dated 30th April, 2009 on 08th May 2009 to notify the principles and methodologies for the second MYT control period from FY 2009-10 to FY 2011-12. Vide Fourth amendment dated 3rd February, 2012, the Commission extended the control period up to March, 2013. For the next control period from FY 2013-14 to FY 2015-16, the Commission notified revision [RG-28(II) of 2012] on 7th December, 2012. In order to specify the terms and conditions for determination of Transmission tariff for the next control period from FY 2016-17 to FY 2018-19, these Regulations are needed notified to be notified.

Now therefore in exercise of the powers conferred by clause (h) (zd) of sub-section (2) of Section 181 read with Sections 36 and 61 of the Electricity Act, 2003 (No. 36 of 2003), the Madhya Pradesh Electricity Regulatory Commission, hereby makes the following Regulations, namely :-

CHAPTER - 1 PRELIMINARY

1. **Short title, extent and commencement:-**
 - 1.1 These Regulations shall be called "Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) (Revision-III) Regulations, 2016 [RG-28 (III) of 2016].
 - 1.2 These Regulations shall extend to the whole of Madhya Pradesh.
 - 1.3 These Regulations shall come in force with effect from 01st April 2016 and unless reviewed earlier or extended by the Commission, shall remain in force for a period of three years that is up to 31st March 2019.
2. **Scope and extent of application.-**

These Regulations shall apply in all cases of determination of transmission Tariff under section 62 of the Electricity Act, 2003 to be charged by the Transmission Licensee from Distribution Licensees/ Open Access Customers, where the capacity of the Transmission System has been allocated under MPERC (Terms and Conditions for Intra-State Open Access in Madhya Pradesh) Regulations, 2005, as amended from time to time, but shall not apply for Transmission System whose Tariff has been discovered through tariff based competitive bidding in accordance with the guidelines issued by the Central Government and adopted by the Commission under Section 63 of the Act.

3. **Norms of Operation to be threshold norms.-**

For removal of doubts, it is clarified that the norms of operation specified under these Regulations are the threshold 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.-**

4.1 In these Regulations, unless the context otherwise requires,

- (a) "Act" means the Electricity Act, 2003 (36 of 2003);
- (b) "Accounting Statement" means for each financial year the following statements, namely-
 - (i) Balance sheet, prepared in accordance with the form contained in Part I of Schedule VI to the Companies Act, 1956 or in the relevant Schedule of its amendment; 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 Part II of Schedule VI to the Companies Act, 1956 or in the relevant Schedule of its amendment;
 - (iii) Cash flow statement, prepared in accordance with the

Accounting Standard on Cash Flow Statement (AS-3) 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 Section 209(1)(d) of the Companies Act, 1956 or in the relevant section of its amendment;
- (c) "Additional Capitalization" means the Capital Expenditure incurred or projected to be incurred, after the Date of Commercial Operation of the project and admitted by the Commission after prudent check, in accordance with provisions of Regulation 18 of these Regulations;
- (d) "Auditor" means an auditor appointed by a Transmission Licensee, as the case may be, in accordance with the provisions of sections 224, 233B and 619 of the Companies Act, 1956 (1 of 1956)], as amended from time to time or Chapter X of the Companies Act, 2013 (18 of 2013) or any other law for the time being in force;
- (e) "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;
- (f) "Bank Rate" means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;
- (g) "Beneficiary" means long term, medium term and short term Transmission Customers, whose tariff is determined under these Regulations;
- (h) "Capital Cost" means the capital cost as determined in accordance with Regulation 17 of these Regulations;

- (i) “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;
- (j) “Commission” means the Madhya Pradesh Electricity Regulatory Commission;
- (k) “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 (WAMS), Fibre 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;
- (l) “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;
- (m) “Cut-off Date” means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project,

and in case the whole or part of the project is declared under commercial operation in the last quarter of a year, the cutoff date shall be 31st March of the year closing after three years of the year of commercial operation:

Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off date for reasons beyond the control of the project developer;

- (n) “Day” means a calendar day consisting of 24 hours period starting at 0000 hour;
- (o) “Date of commercial operation” in relation to a Transmission System shall mean the date declared by the Transmission Licensee from 0000 hour of which an element of the Transmission System is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end:

Provided that.-

- (i) where the transmission line or substation is dedicated for evacuation of power from a particular generating station, the generating company and Transmission Licensee shall endeavour to commission the generating station and the Transmission System simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement between the Generating Company and the Transmission Licensee;
- (ii) in case a Transmission System or an element thereof is prevented from regular service for reasons not attributable to the Transmission Licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream Transmission System, the Transmission Licensee shall approach the Commission through an appropriate application for approval of the date of Commercial Operation of such Transmission System or an element thereof.

- (iii) Date of Commercial Operation in relation to a Communication System or element thereof shall mean the date declared by the Transmission Licensee from 0000 hour of which a Communication System or element is put into service after completion of site acceptance test including transfer of voice and data to respective control centre as certified by the respective State Load Dispatch Centre;
- (p) “De-capitalisation” for the purpose of the tariff under these Regulations, means reduction in Gross Fixed Assets of the project corresponding to the removal/deletion of assets as admitted by the Commission;
- (q) “De-Commissioning” means removal from service of a Transmission System including Communication System or element thereof, after it is certified by any 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;
- (r) “Element” in respect of a Transmission System shall mean an asset which has been distinctively defined under the scope of the project in the Investment Approval;
- (s) “Expenditure incurred” means the funds, 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;
- (t) “Existing Project” means the project declared under commercial operation on a date prior to 1.4.2016;
- (u) “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;
- (v) “Force Majeure” for the purpose of these Regulations means the

event or circumstance or combination of events or circumstances including those stated below which partly or fully prevents the 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;
- (w) “Grid Code” means the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010, as amended from time to time or subsequent re-enactment thereof;
- (x) “Implementation Agreement” means the agreement, contract or memorandum of understanding, or any such covenant, entered into (i) between Transmission Licensee and Generating Station or (ii) between Transmission Licensee and developer of the associated Transmission System for the execution of project in coordinated manner;
- (y) “Investment Approval” means approval by the Board of the Transmission Licensee or any other competent authority conveying administrative sanction for the project including funding of the project and the timeline for the implementation of the project:

Provided that the date of Investment Approval shall reckon from the date of the resolution/minutes of the Board/approval by competent authority.

- (z) “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;
- (za) “Long-Term Transmission Customer” means a person having a Long Term Transmission Service agreement with the Transmission Licensee including deemed Transmission Licensee for use of intra/inter-State Transmission System by paying transmission charges and the term may be used interchangeably with the term Designated ISTS Customers (DICs);
- (zb) “Medium-Term Transmission Customer” means a person having a medium-term lien for the period exceeding three months and upto three years over an inter/ intra-State Transmission System by virtue of paying transmission charges;
- (zc) “New Project” means the project achieving COD or anticipated to be achieving COD on or after 1.4.2016;
- (zd) “Officer” means an Officer of the Commission;
- (ze) “Operation and Maintenance Expenses” or ‘O&M expenses’ means the expenditure incurred for operation and maintenance of the project, or part thereof, and includes the expenditure on manpower, repairs, maintenance spares, consumables, insurance and overheads but excludes fuel expenses and water charges;
- (zf) “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, as admitted by the Commission;
- (zg) “Project” means a Transmission System including Communication System;
- (zh) “Prudence Check” means scrutiny of reasonableness of capital expenditure incurred or proposed to be incurred, financing plan, use of efficient technology, cost and time over-run and such other

factors as may be considered appropriate by the Commission for determination of tariff. While carrying out the Prudence Check, the Commission shall look into whether the Transmission Licensee has been careful in its judgments and decisions for executing the project or has been careful and vigilant in executing the project;

- (zi) “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;
- (zj) “Rated Voltage” means the voltage designed by manufacture at which the transmission system is designed to operate and includes such lower voltage at which any transmission line is charged or for the time being charged, in consultation with Long-term Transmission Customers;
- (zk) “Scheduled Commercial Operation Date or SCOD” shall mean the date(s) of commercial operation of a Transmission System or element thereof as indicated in the Investment Approval or as agreed in transmission service agreement, whichever is earlier;
- (zl) “Secretary” means Commission Secretary;
- (zm) “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;
- (zn) “Start Date or Zero Date” means the date indicated in the investment approval for commencement of implementation of the project and where no date has been indicated, the date of investment approval shall be deemed to be Start Date or Zero Date;
- (zo) “Transmission Service Agreement” means the agreement entered into between the Transmission Licensee and the Long-Term/Medium Term Transmission customer(s) for the use of Transmission System;
- (zp) “Tariff” shall mean the Schedule of charges for transmission of electricity together with terms and conditions thereof;

- (zq) “Tariff Period” shall mean the period for which Tariff is determined by the Commission under these Regulations;
- (zr) “Transmission Line” shall have the same meaning as defined in sub-section (72) of section 2 of the Act;
- (zs) “Transmission System” means a line or a group of lines with or without associated sub-station, equipment associated with Transmission lines and sub-stations;
- (zt) “Transmission Licensee” means a Licensee authorized to establish or operate transmission lines;
- (zu) “Transmission System Availability Factor” means Availability of the Transmission System as certified by the State Load Despatch Centre;
- (zv) “Trial Run and Trial Operation” in relation to a Transmission System or an element thereof shall mean successful charging of the Transmission System or an element thereof for 24 hours at continuous flow of power, and communication signal from sending end to receiving end and with requisite metering system, telemetry and protection system in service enclosing certificate to that effect from State Load Despatch Centre;
- (zw) “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 & HVDC) | 35 years |
| (iv) | Communication System | 15 years |

Provided that the useful life for AC and DC substations and GIS for which Notice Inviting Tender is floated on or after 01.04.2016 shall be considered as 35 years;

Provided further that the extension of life of the projects beyond the completion of their useful life shall be decided by the Commission;

(zx) “Year” shall mean financial year;

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

5. Determination of Tariff.-

5.1 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.

5.2 Notwithstanding anything contained in Part X of the Act, the Tariff for any inter- State transmission of electricity involving the territories of two States may, upon application made to it by the parties intending to undertake such transmission be determined by the Commission in cases where such system is intended to be used exclusively for benefit of the Licensee and that such Licensee is under the Commission's jurisdiction.

6. Principles for Tariff determination.-

6.1. The Commission, while specifying the terms and conditions for the determination of Tariff under these Regulations, is guided by the principles contained in section 61 of the Act.

6.2. 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 9.1. 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.

- 6.3. 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.
- 6.4. 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.

7. Procedure for making an application for determination of Tariff.-

- 7.1. 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.
- 7.2. 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.

- 7.3. 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.
- 7.4. 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.

- 7.5. 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 put 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.
- 7.6. 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.
- 7.7. 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.

- 7.8. If the petition is inadequate in any respect as required under these Regulations, the petition 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.

- 7.9. 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.

8. Methodology for Determination of Tariff and True-up.-

- 8.1. 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' 2016 to 31st March' 2019.
- 8.2. Tariff in respect of Transmission Licensee shall be determined for the entire Transmission System of the Licensee.
- 8.3. A Transmission Licensee shall file a petition at the beginning of the Tariff Period. A review shall be undertaken by the Commission to scrutinise 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.
- 8.4. The Commission shall carry out truing up of tariff of Transmission Licensee based on the performance of the following uncontrollable parameters:
- (i) Force Majeure; and
 - (ii) Change in Law;

Provided that no additional impact of time over-run or cost over-run shall be allowed on account of non-commissioning of the

generating station or associated Transmission System by SCOD, as the same should be recovered through Implementation Agreement between the generating company and the Transmission Licensee:

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

- 8.5. The financial gain by the Transmission Licensee on account of controllable parameters shall be shared between the Transmission Licensee & the Beneficiaries in the ratio of 2:1 respectively on monthly basis with annual reconciliation.
- 8.6. 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.
- 8.7. 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 8.9 of these Regulations.
- 8.8. 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 8.9 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.
- 8.9. The amount under-recovered or over-recovered alongwith simple interest at the rate equal to the Bank rate as on 1st April of the respective year, shall be recovered or refunded by the Transmission Licensee within six months from the date of the tariff order issued by the Commission.

8.10. The Multi Year Tariff filing in hard and soft copy shall be 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.

8.11. 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 trueing up exercise by 15th November each year.

9. Preparation & submission of Annual Accounts, Reports etc.-

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

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

10. Periodicity of Tariff determination.-

10.1. 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.

10.2. 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 attributable and within the control of the

Transmission Licensee.

11. **Hearings.-**

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

12. **Orders of the Commission.-**

12.1. The Commission, after the petition has been filed, may require the Transmission Licensee to furnish any further information, particulars, documents, public records etc as the Commission may consider appropriate to enable the Commission to review the petitioner's calculations, assumptions and assertions.

12.2. After receipt of information or otherwise, the Commission may make appropriate orders in accordance with the provisions of the Madhya Pradesh Electricity Regulatory Commission (Details to be furnished and fees payable by licensee for determination of Tariff and manner of making an application) Regulations, 2004 as amended from time to time.

13. **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 Bank rate as on 01.04.2016 or as on 01st April of the year during the tariff period FY 2016-17 to FY 2018-19 besides any other penalty that may be imposed by the Commission.”

14. **Annual review of Transmission Licensee.-**

14.1. The Transmission Licensee shall submit periodic returns as may be

specified, containing operational and cost data to enable the Commission to monitor the implementation of its order.

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

CHAPTER II

PRINCIPLES & METHODOLOGY FOR DETERMINATION OF TARIFF

15. Petition for determination of Tariff.-

- 15.1. The Transmission Licensee shall file a petition accompanied by such forms as may be specified for determination of Tariff complying with provisions of Chapter I 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 and shall be applicable for the period upto 31st March, 2019.
- 15.2. 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 31.03.2016 for the period starting from 01.04.2016 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 Bank rate as on 01.04.2016 or as on 1st April of the year during the tariff period of FY 2016-17 to FY 2018-19.

16. CERC's Principles.-

- 16.1. The Commission while framing these Regulations has been guided by the principles and methodologies specified by the Central Commission (CERC) in its notification dated 21.02.2014 on Terms and Conditions of Tariff Regulation, 2014 effective from 01.04.2014

17. Capital Cost and Capital structure.-

17.1. Following shall be included in the Capital cost for a Project-

- (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 shall be as under-
 - (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, up to 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 and HVDC Station - 4.00%
 - (v) Gas Insulated Sub-station (GIS) - 5.00%
 - (vi) Communication System - 3.5%

Provided that:

- i. where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:

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

(c) Additional capital expenditure determined under Regulation 18:

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

17.2. 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 benchmark norms specified by the Central Commission from time to time:

Provided further that in cases where benchmark 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 01.04.2016 and the additional capital expenditure projected to be incurred for the respective Year of the Tariff period during FY 2016-17 to FY 2018-19, as may be admitted by the Commission, shall form the basis for determination of capital cost:

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

17.3. 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.

17.4. 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 as may be specified by the Commission.

17.5. 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 SCOD.
- (ii) In case of additional costs on account of IDC due to delay in achieving the SCOD, 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 8.4 of these Regulations, IDC may be allowed after due prudence check:

Provided further that only IDC on actual loan may be allowed beyond the SCOD to the extent, the delay is found beyond

the control of the Transmission Licensee after due prudence and taking into account prudent phasing of funds.

17.6. 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 SCOD:

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

- (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 8.4, 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 over run may be excluded from

capitalization irrespective of price variation provisions in the contracts with supplier or contractor of the Transmission Licensee.

18. Additional capitalization and De-capitalization.-

18.1. 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) Undischarged 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 17.1 (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.

18.2. 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 obsolescence 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;
- (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 (O&M) expenses, same expenditure cannot be claimed under this Regulation.

18.3. 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 in which such de-capitalization takes place, duly taking into consideration the year in which it was capitalized.

19. Renovation and Modernisation.-

- 19.1. 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.
- 19.2. 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.
- 19.3. 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.

20. Debt-equity ratio.-

- 20.1. For a Project declared under commercial operation on or after 1.4.2016, 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.
- (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.

20.2. In case of the Transmission System including Communication System declared under commercial operation prior to 1.4.2016 debt-equity ratio allowed by the Commission for determination of Tariff for the period ending 31.3.2016 shall be considered.

20.3. In case the Transmission System including Communication System declared under commercial operation prior to 01.04.2016, but where debt:equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.03.2016, the Commission shall approve the debt:equity ratio based on actual information provided by the Transmission Licensee.

20.4. Any Expenditure incurred or projected to be incurred on or after 1.4.2016 as may be admitted by the Commission as additional capital expenditure for determination of Tariff and Renovation and Modernisation expenditure for life extension shall be serviced in the manner specified in Regulation 20.1.

21. Transmission Tariff.-

21.1. The Tariff for transmission of electricity on intra-State Transmission System shall comprise the transmission charge for recovery of annual fixed cost consisting of the components specified in Regulation 22.

22. 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) Interest on working capital; and
- (f) Operation and maintenance expenses.

23. Return on Equity.-

23.1. Return on equity shall be computed in rupee terms, on the paid up equity capital determined in accordance with Regulation 20.

23.2. Return on equity shall be computed at the base rate of 15.5% to be grossed up as per clause 23.3 of this Regulation:

Provided that.-

- (i) in case of Projects commissioned on or after 1st April, 2016, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-I**;
- (ii) the additional return of 0.5% shall not be admissible if the Project is not completed within the timeline specified above for

reasons whatsoever:

- (iii) additional RoE of 0.5% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the competent authority that commissioning of the particular element will benefit the system operation in the regional/national grid:
- (iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the 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:
- (v) as and when any of the above requirements are found lacking in a Transmission System based on the report submitted by SLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:

23.3. The base rate of return on equity as allowed by the Commission under Regulation 23.2 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”.

23.4. 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 23.3 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, @ 20.96% including surcharge and cess:
Rate of return on equity = $15.50 / (1 - 0.02096) = 19.610\%$

- (ii) In case of the Transmission Licensee paying normal corporate tax including surcharge and cess:
 - (a) Estimated Gross Income from transmission business for FY 2016-17 is Rs 1000 Crore.
 - (b) Estimated Advance Tax for the year on above is Rs 240 Crore
 - (c) Effective Tax Rate for the year 2016-17 = $\text{Rs } 240 \text{ Crore} / \text{Rs } 1000 \text{ Crore} = 24\%$
 - (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 FY 2016-17 to FY 2018-19 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the Transmission Licensee. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to the Long Term Transmission Customers on year to year basis.

24. Interest and finance charges on loan capital.-

- 24.1. The loans arrived at in the manner indicated in Regulation 20 shall be considered as gross normative loan for calculation of interest on loan.
- 24.2. The normative loan outstanding as on 1.4.2016 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2016 from the gross normative loan.
- 24.3. The repayment for each year of the tariff period FY 2016-17 to FY 2018-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro-rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalization of such asset.
- 24.4. 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.
- 24.5. 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.
- 24.6. The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.
- 24.7. 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 2:1.

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

24.9. In case of dispute, any of the parties may make an application in accordance with the MPERC (Conduct of Business) Regulation, 2004, 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.

25. 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.
- (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-II** 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 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 1.4.2016 shall be worked out by deducting the cumulative depreciation including Advance Against Depreciation as admitted by the Commission upto 31.3.2016 from the gross depreciable value of the assets. The rate of Depreciation shall be continued to

be charged at the rate specified in Appendix-II till cumulative depreciation reaches 70%. Thereafter, the remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.

- (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.

26. Lease/ Hire Purchase charges.-

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

27. Operation & Maintenance expenses.-

- 27.1. Operation and Maintenance Expenses shall be determined for the Tariff period based on normative O&M expenses specified by the Commission in these Regulations.
- 27.2. On examination of the details gathered from MPPTCL regarding transmission network parameters being considered for calculation of normative expenses and actual expenditure from FY 2010-11 to FY 2013-14 in respect of Employee expenses, Repair and Maintenance expenses and Administrative and General expenses, it was found that the normative O&M expenses allowed in the last control period was higher than the actual expenditure incurred by MPPTCL. The actual O&M expenses had been about 88% of the normative O&M expenses.
- 27.3. The cost components for employee expenses, repair & maintenance expenses and administrative and general expenses are considered as per Regulations 37.1 of these Regulations. The Operation and Maintenance

expenses including employee expenses, repair and maintenance expenses, and administrative and general expenses are derived by considering the average of these expenditures for past four years (i.e. FY 2010-11 to FY 2013-14) as per Annual Audited Accounts. The average expenditure of the aforesaid four years is considered as base opening figure for FY 2012-13. Thereafter, the figures of O&M expenditure are derived upto FY 2015-16 by applying the annual escalation rate specified for the respective year in the applicable Regulations.

27.4. The O&M expenses for the subsequent years shall be determined by escalating the expenses of the base year i.e. FY 2015-16, as determined above, with the escalation factor @ 4.14% as considered by the Central Commission for Transmission Licensees in its Tariff Regulations, 2014 for the respective financial years to arrive at permissible O&M expenses for each year of the Control Period.

27.5. 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 will be allowed as per the provisions of aforesaid Regulations.

27.6. 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 a specified period.

27.7. 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.

28. Interest charges on working capital.-

28.1. Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2016 or as on 1st April of the

year during the tariff period FY 2016-17 to FY 2018-19 in which the Transmission System including Communication System or element thereof is declared under commercial operation, whichever is later.

28.2. Interest on working capital shall be payable on normative basis notwithstanding that the Transmission Licensee has not taken loan for working capital from any outside agency.

29. Foreign Exchange Rate Variation (FERV).-

29.1. 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.

29.2. 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.

29.3. 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 the Transmission Licensee or its suppliers or contractors.

29.4. 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.

30. Tax on Income.-

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

31. Tariff income.-

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.

32. Non-Tariff Income.-

32.1. A schedule for other income as provided in the schedule of Miscellaneous Charges and General Charges under MPERC (Details to be furnished by licensees for determination of Tariff and manner of making an application) Regulation 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.

32.2. Revenue from other business shall be treated as income to the extent authorized by the Commission under Section 41 of the Act.

33. Late payment surcharge.-

In case the payment of bills of transmission and other charges are delayed beyond a period of 60 days from the date of presentation of bills, a Transmission Licensee may levy a late payment surcharge at the rate of 1.50% per month for each day of delay of payment.

34. Rebate.-

For payment of transmission charges through a letter of credit on presentation or through NEFT/RGTS within a period of 2 days of presentation of bill by Transmission Licensee, a rebate of 2% shall be allowed. If the payment is made by any other mode but within a period of one month of presentation of bills by the Transmission Licensee, a rebate of 1% shall be allowed.

35. Business Plan and Capital Investment.-

- 35.1. 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.
- 35.2. The Capital Investment plan shall show separately, on going Projects that will spill into 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 upstream 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.
- 35.3. 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.
- 35.4. The proportion for debt and equity for the approved capital investment shall be as per Regulation 20.

CHAPTER III
Transmission Systems

36. Norms of operation.-

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

AC system: 98.0%

36.2 **For incentive consideration.-**

AC system: 98.5%

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

36.3 **Auxiliary Energy Consumption in the sub-station.-**
AC System:

The auxiliary consumption in the sub-station for the purpose of air-conditioning, lighting, technical consumption, etc. shall be considered as part of transmission losses.

37. Operation & maintenance (O&M) expenses.-

37.1 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, incentive and arrears 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 27.5. 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 2016- | FY 2017- | FY 2018- |
|---------------|--------------------|-------------------------------------|-----------------|-----------------|
| | Lines | Rs. Lakh / 100ckt km / annum | | |
| 1. | 400 kV | 32.00 | 33.32 | 34.70 |
| 2. | 220 kV | 29.88 | 31.11 | 32.40 |
| 3. | 132 kV | 31.44 | 32.74 | 34.10 |
| | Bays | Rs. Lakh / Bay / annum | | |
| 1. | 400 kV Bay | 09.58 | 09.98 | 10.39 |
| 2. | 220 kV Bay | 11.12 | 11.58 | 12.06 |
| 3. | 132 kV Bay | 11.16 | 11.62 | 12.10 |

37.2 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.

37.3 The terminal benefits shall be paid as provided in Regulation 27.5.

38. 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 37.1;
- (2) Receivables equivalent to two months of transmission charges calculated on Target Availability Level; and
- (3) Operation and Maintenance expenses for one month.

39. Annual Transmission Charges (TSC).-

39.1 The total annual expenses and expected return on equity of a Transmission Licensee shall be worked out on the basis of expenses and return allowed in terms of Regulations 17 to 30 read with Regulations 36 to 38.

39.2 The Transmission Licensee shall be entitled to recover its Annual Transmission Charges (TSC) from beneficiaries as specified in Regulation 40 & 41.

40. Recovery of Fixed Charges.-

40.1 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.

40.2 In case of the Transmission System, the transmission charge (inclusive of incentive) payable for a calendar month shall be

$$(AFC \times NDM / NDY) \times (TAFM / NATSAF) \text{ (in Rs.)}$$

Where

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

TAFM = Transmission System Availability Factor for a month in % computed in accordance with Appendix III

NATSAF = Normative Annual Transmission System Availability Factor in %, as specified in Regulation 36.1.

NDM = Number of days in a Month

NDY = Number of days in a Year

Provided that the Transmission Licensee shall raise the bill for transmission charge (inclusive of incentive) for a month based on its estimate of TAFM. Adjustments, if any shall be made on the basis of the TAFM to be certified by the SLDC within 30 days from the last

day of the relevant month.

41. Sharing and Payment of Transmission Charges (TSC) by Beneficiaries.-

41.1 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.

41.2 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 Transmission Customer

SCL = Sum of the Allotted Transmission Capacities to all the Long-Term

Transmission Customers of the State Transmission System.

41.3. Medium-term users of the Intra-State Transmission System shall pay the charge in proportion to the MW for which Medium term usage has been approved by the State Transmission Utility for that month.

41.4. The short term Beneficiaries shall pay the charges according to Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Intra-State Open Access in Madhya Pradesh) Regulations 2005 as amended from time to time.

- 41.5. 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.
- 41.6. Section 5.8.10 of the National Electricity Policy provides for efforts to reduce T&D losses. The Government of MP has prescribed loss trajectory for Distribution Companies. The Commission had specified Distribution loss level trajectory in Regulations for Distribution Tariff. Though the Government of MP has not specified trajectory for Transmission loss, the Commission hereby sets the following trajectory based on 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 | 2016-17 | 2017-18 | 2018-19 |
|-------------------|----------------|----------------|----------------|
| Percentage | 2.82% | 2.82% | 2.82% |

**CHAPTER IV
MISCELLANEOUS**

42. 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%, whereafter the proceeds shall be shared in equal proportion, by the Transmission Licensee and the Beneficiaries.
43. **Deviation from norms.-**

The transmission charges by the Transmission Licensee 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.

44. 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.

45. Power to Amend.-

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

46. Repeal and Savings.-

- 46.1 The Regulations namely “Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for determination of Transmission Tariff) (Revision-II) Regulations, 2012 {RG-28 (II) of 2012}” published vide Notification No. 3359/MPERC/2012 dated 07.12.2012 in the Gazette dated 14.12.2012 and read with all amendments thereto, as applicable to the subject matter of these

Regulations are hereby superceded.

- 46.2 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.
- 46.3 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.
- 46.4 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

Shailendra Saxena, Commission Secretary

Timeline for completion of Projects
(Regulation 23)

Appendix – I

1. The completion time schedule shall be reckoned from the date of issue of tenders by the Transmission Licensee up to the Date of Commercial Operation of the units or block or element of transmission Project as applicable.
2. The time schedule has been indicated in months in the following paragraphs and tables:

| Transmission Work | Plain Area (months) | Hilly Terrain |
|--------------------------------|--------------------------------|--------------------------|
| 400 KV D/C Quad Transmission | 38 | 44 |
| 400 KV D/C Triple Transmission | 36 | 42 |
| 400 KV D/C Twin Transmission | 34 | 40 |
| 400 KV S/C Twin Transmission | 30 | 36 |
| 220 KV D/C Twin Transmission | 34 | 40 |
| 220 KV D/C Transmission line | 30 | 36 |
| 220 KV S/C Transmission line | 26 | 32 |
| New 220 KV AC Sub-Station | 24 | 27 |
| New 400 KV AC Sub-Station | 30 | 33 |
| 132 KV Transmission Line | 22 | 28 |
| New 132 KV AC Sub-Station | 18 | 22 |

Notes:

- (i) In case a scheme having combination of the above mentioned types of Projects, the qualifying time schedule of the activity having maximum time period shall be considered for the scheme as a whole.
- (ii) In case a transmission line falls in plain as well as hilly terrain/ very difficult terrain, the composite qualifying time schedule shall be calculated giving proportional weightage to the line length falling in each area.

Depreciation Schedule

| Sr. No. | Asset Particulars | Depreciation Rate (Salvage) |
|----------------|--|------------------------------------|
| | | Straight Line Method |
| A | Land under full ownership | 0.00% |
| B | Land under lease | |
| a | for investment in the land | 3.34% |
| b | For cost of clearing the site | 3.34% |
| C | 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) | |
| (i) | 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 arrester | |
| (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 66 KV | 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 | 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 a calendar month (TAFM) shall be calculated by the respective Transmission Licensee, got verified and certified by the concerned Load Despatch Centre separately for each AC and HVDC transmission system and grouped according to sharing of transmission charges. Transmission System Availability shall be calculated separately for each Regional Transmission System and inter-regional transmission system. For the purpose of calculation of TAFM:
 - i) AC transmission lines: Each circuit of AC transmission line shall be considered as one element.
 - ii) Inter-Connecting Transformers (ICTs): Each ICT bank (three single phase transformer together) shall form one element.
 - iii) Static VAR Compensator (SVC): SVC along with SVC transformer shall form one element. However, 50% credit to inductive and 50% to capacitive rating shall be given.
 - iv) Bus Reactors/Switchable line reactors: Each Bus Reactors/Switchable line reactors shall be considered as one element.
 - v) HVDC Bi-pole links: Each pole of HVDC link along with associated equipment at both ends shall be considered as one element.
 - vi) HVDC back-to-back station: Each block of HVDC back-to-back station shall be considered as one element. If associated AC line (necessary for transfer of interregional power through HVDC back-to-back station) is not available, the HVDC back-to-back station block shall also be considered as unavailable.
2. The Availability of AC and HVDC portion of Transmission system shall be calculated as under:

$$\begin{aligned} & \% \text{ TAFM for AC system} \\ & = \frac{o \times AV_o + p \times AV_p + q \times AV_q + r \times AV_r}{o + p + q + r} \times 100 \\ & \% \text{ TAFM for HVDC system} \\ & = \frac{s \times AV_s + t \times AV_t}{S + t} \times 100 \end{aligned}$$

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.
- s = Total number of HVDC poles
- AV_s = Availability of s number of HVDC poles
- t = Total number of HVDC back-to-back station blocks
- AV_t = Availability of t number of HVDC back-to-back station blocks

3. The weightage factor for each category of transmission elements shall be as under:

- (a) For each circuit of AC line – Surge Impedance Loading for Uncompensated line (SIL) multiplied by ckt-km.

SIL rating for various voltage level and conductor configuration is given in **Appendix-IV**. However, for the voltage levels and/or conductor configurations not listed in Annexure-I, appropriate SIL based on technical considerations may be used for availability calculation under intimation to long-term transmission customers/DICs.

For compensated AC line, Surge Impedance Loading (SIL) shall be as certified by the competent Authority considering the compensation on the line.

For shunt compensated line the reduced value of SIL shall be taken in accordance with the location of the reactor. Similarly in case of the lines with series compensation the higher SIL shall be taken as per the percentage of compensation.

- (b) For each HVDC pole- The rated MW capacity x ckt-km
 - (c) For each ICT bank – The rated MVA capacity
 - (d) For SVC- The rated MVAR capacity (inductive and capacitive)
 - (e) For Bus Reactor/switchable line reactors – The rated MVAR capacity.
 - (f) For HVDC back-to-back station connecting two Regional grids- Rated MW capacity of each block.
4. The availability for each category of transmission elements shall be calculated based on the weightage factor, total hours under consideration and non-available hours for each element of that category. The formulae for calculation of Availability of each category of the transmission elements are as per **Appendix-V**.
5. The transmission elements under outage due to following reasons shall be deemed to be available:
- (i) Shut down availed for maintenance of an element or construction including capacity enhancement of other transmission element/(s). If the other transmission element belongs to the Transmission Licensee, the SLDC may restrict the deemed availability period to that considered reasonable by him for the work involved.
 - (ii) Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the directions of SLDC.
6. Outage time of transmission elements for the following contingencies shall be excluded from the total time of the element under period of consideration.
- i) Outage of elements due to acts of God and force majeure events beyond the control of the Transmission Licensee. However, onus of satisfying the SLDC that element outage was due to aforesaid

events and not due to design failure shall rest with the Transmission Licensee. A reasonable restoration time for the element shall be considered by 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. 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, etc. due to grid disturbance. However, if the element is not restored on receipt of direction from 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 SLDC's direction for restoration.

Appendix-IV

SURGE IMPEDANCE LOADING (SIL) OF AC LINES

| S. No. | Line voltage (kV) | Conductor Configuration | SIL (MW) |
|---------------|------------------------------|------------------------------------|---------------------|
| 1 | 765 | Quad Bersimis | 2250 |
| 2 | 400 | Quad Bersimis | 691 |
| 3 | 400 | Twin Moose | 515 |
| 4 | 400 | Twin AAAC | 425 |
| 5 | 400 | Quad Zebra | 647 |
| 6 | 400 | Quad AAAC | 646 |
| 7 | 400 | Tripple Snowbird | 605 |
| 8 | 400 | ACKC (500/26) | 556 |
| 9 | 400 | Twin ACAR | 557 |
| 10 | 220 | Twin Zebra | 175 |
| 11 | 220 | Single Zebra | 132 |
| 12 | 132 | Single Panther | 50 |
| 13 | 66 | Single Dog | 10 |

Appendix-V

FORMULAE FOR CALCULATION OF AVAILABILITY OF EACH CATEGORY OF TRANSMISSION ELEMENTS

$$AV_0 \text{ (Availability of } 0 \text{ no. of AC lines)} = \frac{\sum_{i=1}^o \frac{W_i(T_i - T_{NAi})}{T_i}}{\sum_{i=1}^o W_i}$$

$$AV_s \text{ (Availability of } s \text{ no. of HVDC pole)} = \frac{\sum_{j=1}^s \frac{W_j(T_j - T_{NAj})}{T_j}}{\sum_{j=1}^s W_j}$$

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

$$AV_r \text{ (Availability of } r \text{ no. of SVCs)} = \frac{\left[\sum_{l=1}^r 0.5 \frac{W_l(T_l - T_{NA l})}{T_l} + \sum_{l=1}^r 0.5 \frac{W_{cl}(T_{cl} - A_{cl})}{T_{cl}} \right]}{\left[\sum_{l=1}^r 0.5 W_l + \sum_{l=1}^r 0.5 W_{cl} \right]}$$

$$AV_p \text{ (Availability of } p \text{ no. of Switched Bus reactor)} = \frac{\sum_{m=1}^p \frac{W_m(T_m - T_{NA m})}{T_m}}{\sum_{m=1}^p W_m}$$

$$AV_t \text{ (Availability of } t \text{ no. of HVDC Back to back Blocks)} = \frac{\sum_{n=1}^t \frac{W_n(T_n - T_{NA n})}{T_n}}{\sum_{n=1}^t W_n}$$

Where W_i = Weightage factor for i^{th} transmission line
 W_j = Weightage factor for j^{th} HVDC pole
 W_k = Weightage factor for k^{th} ICT
of l^{th} W_{Il} & W_{Cl} = Weightage factors for inductive & capacitive operation SVC
 W_m = Weightage factor for m^{th} bus reactor
 W_n = Weightage factor for n^{th} HVDC back to back block.

$T_i, T_j, T_k, T_{Il}, T_{Cl}, T_m$ & T_n - The total hours of i^{th} AC line, j^{th} HVDC pole, k^{th} ICT, l^{th} SVC (Inductive Operation), l^{th} SVC (Capacitive Operation), m^{th} Switched Bus Reactor & n^{th} HVDC back-back block during the period under consideration time period for outages not attributable to transmission licensee for reasons given in Para 6 of the procedure)
to-
(excluding

$T_{NAi}, T_{NAj}, T_{NAk}$ - The non-availability hours (excluding the time period for
for
 $T_{NAIl}, T_{NACl}, T_{NAM}$, outages not attributable to transmission licensee taken as T_{NAn} deemed availability as per Para 5 of the procedure) for i^{th} AC line, j^{th} HVDC pole, k^{th} ICT, l^{th} SVC (Inductive Operation), l^{th} SVC (Capacitive Operation), m^{th} Switched Bus Reactor and n^{th} HVDC back-to-back block .