

Bhopal, 30th April 2009

No. **906/MPERC/2009**. In exercise of powers conferred by Section 181 (2) (h) and 181(2) (zd) read with Section 36 and 61 of the Electricity Act, 2003 (No. 36 of 2003), the Madhya Pradesh Electricity Regulatory Commission makes the following Regulations:

**MADHYA PRADESH ELECTRICITY REGULATORY
COMMISSION (TERMS AND CONDITIONS FOR
DETERMINATION OF TRANSMISSION TARIFF) REGULATIONS,
2009 {RG-28 (I) OF 2009}**

PREAMBLE

Whereas the Commission had notified Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2005 (G-28 of 2005) on 16th December 2005, the first control period of Multi Year Tariff has expired on 31st March, 2009. As per Section 61 (a) of Electricity Act, 2003, SERC is guided by the principles and methodologies specified by the CERC for determination of tariff applicable to Transmission Licensee. The first control period for MYT Tariff for CERC was also over in 2009. CERC came out with the MYT Regulations for the next control period on 19th January, 2009. In order to specify the terms and conditions of Transmission tariff for the next control period of FY 2009-10 to FY 2011-12 and also to align the Multi Year Tariff Regulations with current CERC Regulations, these Regulations are being notified.

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 –I**) Regulations, 2009 {RG-28 (I) of 2009}”.
- 1.2 These Regulations shall extend to the whole of the State of Madhya Pradesh.
- 1.3 These Regulations shall come in force with immediate effect from the date of their publication in the Official Gazette of the Government of Madhya Pradesh and unless reviewed earlier or extended by the Commission, shall remain in force for a period upto March 2012 from the date of commencement.

2. Scope and extent of application

- 2.1 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 MP) Regulations, 2005, as amended from time to time, but shall not apply in such cases where transmission Tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government as per the provisions of Section 63 of the Act.

3. Norms of Operation to be threshold norms

- 3.1. 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" shall mean 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; 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
 - (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,
- (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, subject to provisions of Regulation 18.
- (d) "Applicant" means a Transmission Licensee who has made an application for determination of Tariff in accordance with these Regulations and includes a Transmission Licensee whose Tariff is subject to review by the Commission either suo motu or on a petition filed by any interested or affected person;
- (e) "Auditor" means an Auditor appointed by the Transmission Licensee in accordance with the provisions of Sections 224 and 619 of the Companies Act, 1956 (1 of 1956) or any other law for the time being in force;
- (f) "Availability" in relation to a Transmission System for a given period shall mean the time in hours during that period in which 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;
- (g) "Beneficiary" shall mean Long-term, Medium-term or Short-term Transmission Customers whose tariff is determined under these Regulations;
- (h) "Change in law" means occurrence of any of the following events:
- (i) the enactment, bringing into effect, adoption, promulgation, amendment, modification or repeal of any law; or
 - (ii) change in interpretation of any law by a competent court, Tribunal or Indian Governmental Instrumentality which is the final authority under law for such interpretation; or
 - (iii) change by any competent statutory authority, in any consent, approval or licence available or obtained for the project;
- (i) "Commission" shall mean the Madhya Pradesh Electricity Regulatory Commission;
- (j) "Cut off date" means 31st March of the Year closing after two Years of commercial operation of the project, and in case the project is declared under commercial operation in the last quarter of a Year, the Cut off date

shall be 31st March of the Year closing after three Years of the Year of commercial operation;

- (k) “Date of Commercial Operation (COD)” shall mean the date declared by the Transmission Licensee from 0000 hour of which an element of the Transmission System is in the regular service at its Rated Voltage level after successful charging and trial operation:

Provided that the date shall be the first day of a calendar month and transmission charge for the element shall be payable and its Availability shall be accounted for, from that date:

Provided further that in case an element of the transmission system is ready for regular service but is prevented from providing such service for reasons not attributable to the Transmission Licensee, its suppliers or contractors, the Commission may approve the Date of Commercial Operation prior to the element coming into regular service;

- (l) “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;
- (m) “Existing Project” means the project declared under commercial operation from a date prior to 1.4.2009;
- (n) ”Long-Term Transmission Customer” means a person having a long-term lien exceeding three years over an inter / intra-State Transmission System by virtue of paying transmission charges and a Distribution Licensee shall necessarily be a long term user for which it will be required to enter into appropriate agreement with the Transmission Licensee;
- (o) “Medium-term Transmission Customer” means a person having a medium-term lien for means the period exceeding three months and upto three Years over an inter / intra-State Transmission System by virtue of paying transmission charges;
- (p) “Officer” means an Officer of the Commission;
- (q) “Operation and Maintenance expenses” or ”O&M expenses” means the expenditure incurred on operation and maintenance of the project, including part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads;

- (r) “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;
- (s) “Project” means the Transmission System;
- (t) “Rated Voltage” means the manufacturer’s design voltage at which the Transmission System is designed to operate or such lower voltage at which the transmission line is charged, for the time being, in consultation with Long-term Transmission Customers;
- (u) “Secretary” means Commission Secretary;
- (v) “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;
- (w) “Tariff” shall mean the schedule of charges for transmission of electricity together with terms and conditions thereof;
- (x) “Tariff Period” shall mean the period for which Tariff is determined by the Commission under these Regulations;
- (y) “Transmission Licensee” means a Licensee authorized to establish or operate intra- state transmission lines;
- (z) “Transmission Service Agreement” means the agreement, contract, memorandum of understanding, or any such covenants, entered into between the Transmission Licensee and the Long-Term Transmission Customer(s) for the use of Transmission System;
- (aa) “Transmission System” means a line with or without associated sub-stations or a group of lines inter-connected together along with or without associated sub-stations and the term includes equipment associated with transmission lines and sub-stations;
- (bb) “Transmission System Availability Factor” means Availability of the Transmission System as certified by the State Load Despatch Centre;
- (cc) “Useful life” in relation to a unit of a Transmission System from the COD shall mean 25 years for sub-station and 35 years for transmission line;
- (dd) “Year” shall mean financial year.

4.2. Words or expressions occurring in these Regulations and not defined shall bear the same meaning as in the Act.

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 incentivise 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 Applicant shall provide, as part of the application to the Commission, information in such formats 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 Applicant 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 Applicant 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 3 working days of its acceptance by the Commission.

7.6. The Applicant 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 Applicant 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 authorised 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 a period upto March, 2012 from the date of commencement of these Regulations.
- 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 and every year thereafter. 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 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. While determining O&M expenses norms, an element for payment of prior period arrears upto 31.8.2008, on account of revision of pay scales of the employees in accordance with Sixth pay Commission recommendations as implemented by the State Transmission Utility, has been included. This shall also be trued up and for this purpose details of actual arrears payments shall be furnished.
- 8.4. If the Tariff already recovered is more than the Tariff determined after true up, the Transmission Licensee shall refund to the Long-term transmission Beneficiaries the excess amount so recovered along with simple interest at the rate equal to short term prime lending rate of State Bank of India as on 1st April of the respective year/ years. Similarly, in case the Tariff already recovered is less than the Tariff determined after true up, the Transmission Licensee shall recover from the Long-term transmission Beneficiaries, the under recovered amount along with simple interest at the rate equal to short term prime lending rate of State Bank of India as on 1st April of the respective Year/ Years 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.

8.5. The Tariff and True up filing 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) by 15th October every 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 of 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

11.1. 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.

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 or generating company 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

- 13.1. 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 146 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 short term prime lending rate of State Bank of India as on April 1, of the relevant Year, 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 a period upto March, 2012.

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 31.3.2009 for the period starting from 1.4.2009 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 along with simple interest at the rate equal to short-term Prime Lending Rate of State Bank of India on the 1st April of the concerned/respective Year.

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 19.1.2009 on Terms and Conditions of Tariff Regulation, 2009 effective from 1.04.2009.

17. Capital Cost and Capital structure

17.1. Capital cost for a Project shall include:

17.1.1.1. 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, - 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.

17.1.1.2. Capitalized initial spares subject to the following ceiling norms:

17.1.1.2.1. Transmission line- 0.75% of Original Project cost

17.1.1.2.2. Transmission substation- 2.5% of Original Project cost

17.1.1.2.3. Series compensation devices- 3.5 % of Original Project cost

17.1.1.3. 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 prudent check of capital cost may be carried out based on the benchmark norms to be specified by the Central Commission from time to time.

Provided further that in cases where benchmark norms have not been specified by the Central Commission, 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 1.4.2009 and the additional capital expenditure

projected to be incurred for the respective Year of the Tariff period during 2009-12, as may be admitted by the Commission, shall form the basis for determination of capital cost.

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.

18. Additional 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 may be admitted by the Commission, subject to prudent check:

- (a) Undischarged liabilities,
- (b) Works deferred for execution,
- (c) Liabilities to meet award of arbitration or for compliance of order or decree of a court,
- (d) Change in 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 included in the original scope of work along with estimates of expenditure, undischarged liabilities and works deferred for execution shall be submitted along with the application for Tariff.

18.2. The capital expenditure of the following nature actually incurred after the Cut off date may, in its discretion, be admitted by the Commission, subject to prudent check:

- (a) liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (b) Change in law, and

- (c) any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, 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:

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 useful life 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 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 as admitted by the Commission after prudent 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 1.4.2009, 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 where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of Tariff.

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

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, provided 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 declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of Tariff for the period ending 31.3.2009 shall be considered.

20.3. Any Expenditure incurred or projected to be incurred on or after 1.4.2009 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 transmission charge for recovery of annual fixed cost consisting of the components specified in Regulation 22.

22. Annual Fixed Cost

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

- 22.1.1.1. Return on equity;
- 22.1.1.2. Interest and finance charges on loan capital;
- 22.1.1.3. Depreciation;
- 22.1.1.4. Lease/ Hire Purchase charges;
- 22.1.1.5. Interest on working capital; and
- 22.1.1.6. 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 on pre-tax basis at the base rate of 15.5% to be grossed up as per clause 23.3 of this Regulation

Provided that in case of Projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-I**.

Provided further that the additional return of 0.5% shall not be admissible if the Project is not completed within the timeline specified above for reasons whatsoever.

- 23.3 The rate of return on equity shall be computed by grossing up the base rate with the normal tax rate for the Year 2008-09 applicable to the Transmission Licensee,:

Provided that return on equity with respect to the actual tax rate applicable to the Transmission Licensee in line with the provisions of the relevant finance acts of the respective year during the Tariff Period shall be trued up separately for each year of the Tariff Period.

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

Rate of pre-tax return on equity = Base rate / (1-t)

Where t is the applicable tax rate in accordance with clause 23.3 of this Regulation.

Illustration.-

(i) In case of the Transmission Licensee paying Minimum Alternate Tax (MAT) @ 11.33% including surcharge and cess:

Rate of return on equity = $15.50 / (1 - 0.1133) = 17.481\%$

(ii) In case of the Transmission Licensee paying normal corporate tax @ 33.99% including surcharge and cess:

Rate of return on equity = $15.50 / (1 - 0.3399) = 23.481\%$

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 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.

- 24.3. The repayment for each Year of the Tariff period 2009-12 shall be deemed to be equal to the depreciation allowed for that Year.

- 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 at the beginning of each Year applicable to the Project:

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

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

25.1.1.1. The value base for the purpose of depreciation shall be the capital cost of the assets as admitted by the Commission

25.1.1.2. 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.

- 25.1.1.3. The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.
- 25.1.1.4. 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.
- 25.1.1.5. Depreciation shall be calculated annually based on 'straight line method' and at rates specified in Appendix-II to these Regulations for the assets of the 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.

- (f) In case of the existing Projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation including Advance Against Depreciation as admitted by the Commission upto 31.3.2009 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 %.
- (g) 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.

26. Lease/ Hire Purchase charges

- 26.1. Lease charges for assets taken on lease by Transmission Licensee shall be considered as per lease agreement provided 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. Normative O&M expenses other than expenses on payment of arrears to employees on account of revision of pay scales of the employees in accordance with Sixth Pay Commission recommendations, as implemented by the State Transmission Utility at the commencement of the Tariff Period have been escalated at the rate of 6.14% considering a weighted average of Wholesale Price Index and Consumer Price Index in the ratio of 60: 40.
- 27.3. For first Financial Year of the control period, the impact of implementation of 6th Pay Commission recommendations has been considered in employees cost, which has been escalated @ 6.14% in subsequent Years. The Commission has also considered expenditure on payment of arrears upto 31.8.2008 during the financial years 2009-10 to 2011-12 as one third each year based on estimate submitted by the Transmission Licensee.
- 27.4. In the case of repair & maintenance and administration & general expenses, average of financial years 2005-06, 2006-07 and 2007-08 audited figures have been taken as base for the financial year 2006-07. This has been escalated Year-wise at inflation rate of 6.14% to arrive at the amounts allowed for the control period.
- 27.5. Employees transfer to Companies from MPSEB is yet to take place. Actuarial analysis for assessment of unfunded terminal liabilities and segregation of this liability for pensioners, past service rendered by employees on rolls and current provision for serving employees is yet to be done despite repeated directions of this Commission. A scheme for funding this unfunded liability and operationalizing Terminal Benefit Trust Fund, as envisaged in Rule 10 and 11 of Transfer Scheme Rules, 2003 is yet to be pronounced by the State Government.
- 27.6. As per the Commission's view, the funds needed for pension contribution of existing employees i.e. current liability for each Year alone should be allowed in the employee cost of the M.P. Transmission Company Ltd., M.P. Generating Company Ltd., and three Distribution Companies. The Commission, in the intervening period, has been allowing funds needed for actual pension payment and other terminal benefits like gratuity. With the rapid increase in pension bills, its impact on retail tariff is progressively going up. This arrangement of allowing actual pension payment has become unsustainable and will have to be discontinued in near future. In view of the above, following action need be taken in the matter of unfunded pension liabilities and terminal benefits of employees :-
- 27.6.1.1. An actuarial analysis for determining pension liability of pensioners as also for service already rendered by existing employees on one hand and current provision needed for each fiscal year commencing from FY 2010-11 for serving employees on other hand, be got conducted for each Year and findings be reported to the Commission by 30th September, 2009. The M.P. Transmission Company Limited is charged with carrying out this activity.

27.6.1.2. The scheme for funding this unfunded liability is finalized and terms for operating Terminal Benefit Trust Fund are set by State Government by 31st December, 2009. The scheme so finalized be such that it ensures that burden of past unfunded liabilities does not become a charge eventually on Retail Tariff and that the scheme is equitable.

27.6.1.3. Since actions as in (a) and (b) above will take time, the existing arrangement of allowing funds for terminal benefits shall continue on actual payment basis, for one more Year only i.e. for FY 2009-10 to the Transmission Licensee. In the eventuality either of the actions, as in (a) and (b) above, are not completed within the time frame mentioned above, the Commission shall assess current pension contribution of existing employees for FY 2010-11 and onwards and shall allow such expenses only in the employee cost of Transmission Licensee pertaining to employees on the roles of Transmission Licensee from FY 2010-11 onwards.

27.7. 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.

27.8. Any saving achieved by a Licensee in any Year shall be allowed to be retained by it. The Licensee 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 to be computed as provided subsequently in these Regulations shall be on normative basis and shall be equal to the Short-term Prime Lending Rate of State Bank of India as on April 1 of the relevant Year. The interest on working capital shall be payable on normative basis notwithstanding that the Licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan based on the normative figures.

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 in the discretion of the 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

- 30.1. Tax on Income streams of the Transmission Licensee shall not be recovered from the Transmission Customers,

Provided that the deferred tax liability, excluding Fringe Benefit Tax, for the period up to 31st March, 2009 whenever it materializes, shall be recoverable directly from the Long-term Customers.

31. Tariff income

- 31.1. 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.

32. Other 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 'Other 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

- 33.1. 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 1.25% per month for each day of delay of payment.

34. Rebate

- 34.1. For payment of transmission charges through a letter of credit on presentation, 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 business plan which shall comprise but not be limited to 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 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% for the Tariff Period.

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 kilometres of transmission lines and number of bays in substation. These norms exclude pension, terminal benefits and incentive to be paid to employees, taxes payable to the Government, MPSEB expenses and fee payable to MPERC. The Transmission Licensee shall claim the taxes payable to the Government and fees to be paid to MPERC separately as actuals. The claim of pension and terminal benefits shall be dealt as per Regulation 27. 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

	2009-10	2010-11	2011-12
Lines	Rs. Lakh / 100ckt km / annum		
400 kV Lines	29.1	30.8	32.6
220 kV Lines	23.4	24.8	26.2
132 kV Lines	22.0	23.3	24.6
Bays	Rs. Lakh / Bay / annum		
400 kV Bay	13.4	14.2	15.0
220 kV Bay	10.0	10.6	11.2
132 kV Bay	9.5	10.0	10.6

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 kilometres 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..

38. Working capital

38.1. 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 and 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

$$= \left(\sum_{i=1}^n \left[\frac{TC_i}{12} \right] \right) \times \frac{CL}{SCL}$$

Where TC_i = Annual Transmission Charges for the i^{th} Project in the state computed in accordance with these Regulations.

n = Number of Projects in the State

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 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.

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.

43.1 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

44.1 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

45.1 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), Regulations, 2005 (G-28 of 2005)” published vide Notification No.3023/MPERC/2005 in the Gazette dated 16/12/2005 and read with all amendments thereto, as applicable to the subject matter of these Regulations is 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

Ashok Sharma, Commission Secretary

Timeline for completion of Projects
(Regulation 23)

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 (months)
400 KV D/C Quad Transmission line	32	38
400 KV D/C Triple Transmission line	30	36
400 KV D/C Twin Transmission line	28	34
400 KV S/C Twin Transmission line	24	30
220 KV D/C Twin Transmission line	28	34
220 KV D/C Transmission line	24	30
220 KV S/C Transmission line	20	26
New 220 KV AC Sub-Station	18	21
New 400 KV AC Sub-Station	24	27
132 KV Transmission Line	16	22
New 132 KV AC Sub-Station	12	16

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.

APPENDIX-II**Depreciation Schedule**

Sr. No.	Asset Particulars	Depreciation Rate (Salvage Value=10%)
		SLM
A	Land under full ownership	0.00%
B	Land under lease	
a	for investment in the land	3.34%
b	For cost of clearing the site	3.34%
C	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 arrestor	
(i)	Station type	5.28%
(ii)	Pole type	5.28%

Sr. No.	Asset Particulars	Depreciation Rate (Salvage Value=10%)
e	Synchronous condensor	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%

Sr. No.	Asset Particulars	Depreciation Rate (Salvage Value=10%)
(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 SLDC and separately for each AC transmission system and grouped according to sharing of transmission charges.

2. TAFM, in percent, shall be equal to $(100 - 100 \times \text{NAFM})$, where NAFM is the non-availability factor in per unit for the month, for the transmission system / sub-system.

3. NAFM for A.C. systems / sub-systems shall be calculated as follows :

$$\text{NAFM} = \left[\sum_{l=1}^L (\text{OH}_{l1} \times \text{Ckt km}_{l1} \times \text{NSC}_{l1}) + \sum_{t=1}^T (\text{OH}_{t1} \times \text{MVA}_{t1} \times 2.5) \right]$$

$$+ \sum_{r=1}^R (\text{OH}_{r1} \times \text{MVAR}_{r1} \times 4)] \div \text{THM} \times \left[\sum_{l=1}^L (\text{Ckt km}_{l1} \times \text{NSC}_{l1}) \right]$$

$$+ \sum_{t=1}^T (\text{MVA}_{t1} \times 2.5) + \sum_{r=1}^R (\text{MVAR}_{r1} \times 4)]$$

Where

l identifies a transmission line circuit

t identifies a transformer / Inter connecting transformer (ICT)

r identifies a bus reactor, switchable line reactor or Static VAR Compensation(SVC)

L = total number of line circuits

T = total number of transformers and ICTs

R = total number of bus reactors, switchable line reactors and SVCs

OH = Outage hours or hours of non-availability in the month, excluding the duration of outages not attributable to the Transmission Licensee, if any, as per clause (5).

Cktkm = Length of a transmission line circuit in km

NSC = Number of sub-conductors per phase

MVA = MVA rating of a transformer / ICT

MVAR = MVAR rating of a bus reactor, switchable line reactor or an SVC (in which case it would be the sum of inductive and capacitive capabilities).

THM = Total hours in the month.

4. The transmission elements under outage due to following reasons shall be deemed to be available:
 - i) Shut down availed for maintenance or construction of elements of another transmission scheme. If the other transmission scheme belongs to the Transmission Licensee, the 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.

5. 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.