

**HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION, SHIMLA**  
Vidyut Aayog Bhawan, Block No. 37, SDA Complex, Kasumpti, Shimla- 171009

**Notification**

Shimla, the 14<sup>th</sup> day of March, 2024

**No. HPERC-F(1)-68/2023.-** In exercise of the powers conferred by Section 61, sub-section(1) of Section 62, Clauses (a), (c) and (e) of sub-section (1) of Section 86 and Clause (zd) of sub-section (2) of Section 181 of the Electricity Act, 2003 (36 of 2003), read with Section 21 of the General Clauses Act, 1897 (10 of 1897), and all other powers enabling it in this behalf, the Himachal Pradesh Electricity Regulatory Commission hereby makes the following regulations, namely:-

**REGULATIONS**

**PART-I**  
**PRELIMINARY**

- 1. Short Title and Commencement.-** (1) These Regulations may be called the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023.  
(2) These Regulations shall come into force on 1<sup>st</sup> April, 2024.
- 2. Scope and Extent of Application.-** (1) These Regulations shall extend to the whole of the State of Himachal Pradesh.  
(2) These Regulations shall be applicable where the capital cost based tariff for the transmission system is determined by the Commission under section 62, read with section 86 of the Act.  
(3) These Regulations shall be applicable to all existing and future Transmission Licensees, and their successors, if any, for determination of Aggregate Revenue Requirement, Tariff, in all matters covered under these Regulations from 1<sup>st</sup> April, 2024 up to 31<sup>st</sup> March, 2029, unless otherwise reviewed/extended:  

Provided that for all purposes, including review matters pertaining to the period till 31<sup>st</sup> March, 2024, the issues relating to determination of Aggregate Revenue Requirement and Tariff shall be governed by the provisions of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions of transmission Tariff) Regulations, 2011, including amendments thereto, as may be applicable.

  
(4) These Regulations supersede the “Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions of transmission Tariff) Regulations, 2011” and amendments thereof.

- (5) Where tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government, the Commission shall adopt such tariff in accordance with the provisions of the Act:

Provided that all Intra-State Transmission Projects i.e. Transmission Line or Sub-station or both Transmission Line and Sub-station as a package (where the proposed Transmission Line is associated with the proposed Sub-station) above the threshold limit of Rs. 75 Crore (Rupees Seventy Five Crore) shall be developed through Tariff Based Competitive Bidding (TBCB) in accordance with the guidelines issued by the State Government:

Provided further that in case the State Government/ Transmission Licensee intends to develop any Intra-State Transmission Project above the threshold limit through cost plus approach due to some specific reasons, the State Government/ Transmission Licensee shall obtain prior approval of the Commission for the same.

**3. Definitions.-** (1) In these Regulations, unless the context otherwise requires, -

- (a) **“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 III to the Companies Act, 2013 as amended from time to time;
  - (ii) Cash flow statement, prepared in accordance with the Accounting Standard on Cash Flow Statement (A5-3) of the Institute of Chartered Accountants of India or Ind AS 7 issued by the Accounting Standard Board;
  - (iii) Cost records prescribed by the Central Government under Section 128(1) of the Companies Act, 2013;
  - (iv) Together with notes thereto, and such other supporting statements and information as the Commission may direct from time to time;
  - (v) Profit and loss account, complying with the requirements contained in Part-II of Schedule III to the Companies Act, 2013;
  - (vi) Report of the statutory auditors;
- (b) **“Act”** means the Electricity Act, 2003 (36 of 2003);
- (c) **“Additional Capital Expenditure”** means the capital expenditure incurred or projected to be incurred, after the date of commercial operation of the project by the Transmission Licensee in accordance with the provisions of these Regulations;
- (d) **“Additional Capitalisation”** means the additional capital expenditure admitted by the Commission after prudence check, in accordance with these Regulations;
- (e) **“Admitted capital cost”** means the capital cost which has been allowed by the Commission for servicing through tariff after due prudence check in accordance with these Regulations;

- (f) **“Aggregate Revenue Requirement” or “ARR”** means the costs pertaining to the licensed business which are permitted, in accordance with these Regulations, to be recovered from the tariffs and charges determined by the Commission;
- (g) **“Allocation Statement ”** means for each financial year, a statement in respect of each of the businesses of the licensee including inter-state & intra-state transmission system, showing the amounts of any revenue, cost, asset, liability, reserve or provision etc, which has been either—
- (a) determined by apportionment or allocation between different businesses of the licensee including the licensed business, together with a description of the basis of the apportionment or allocation, or
  - (b) charged from or to each such other business together with a description of the basis of that charge;
- Provided that ‘Allocation Statement’ shall not be construed as a substitute for maintaining separate accounting statement for the licensed business and other businesses of the Licensees;
- (h) **“Allotted Transmission Capacity”** means the power transfer in MW between the specified point(s) of injection and point(s) of drawal allowed to a long-term customer on the intra-State transmission system under the normal circumstances and allotted transmission capacity to a long-term transmission customer shall be sum of the generating capacities allocated from the State generating stations and inter-State generating stations and the expression "allotment of capacity" shall be construed accordingly;
- (i) **“Appendix”** means the appendix appended to these Regulations;
- (j) **“Applicant”** means a Transmission Licensee who has made an application for determination of transmission charge in accordance with these Regulations and includes a Transmission Licensee whose tariff is the subject of a review by the Commission on Suo- motu basis or as part of a Truing-up exercise;
- (k) **“Auditor”** means an auditor appointed by a Transmission Licensee 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;
- (l) **“Availability”** in relation to a transmission system for a given period means the time in hours during that period in which the transmission system is capable to transmit electricity at its rated voltage and shall be expressed in percentage of total hours in the given period;
- (m) **“Bank Rate”** means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;

- (n) “**Base year**” means the financial year immediately preceding first year of the Control Period and used for the purposes of these Regulations;
- (o) “**Beneficiary**” means the Transmission System User who has contracted the transmission capacity on payment of transmission charges;
- (p) “**Central Commission**” means the Central Electricity Regulatory Commission, as referred to in sub- section (1) of section 76 of the Act;
- (q) “**Change in law**” means occurrence of any of the following events having implication for the transmission system operations covered by these Regulations:
  - a) enactment, bringing into effect, adoption, promulgation, amendment, modification or repeal of any law; or
  - b) adoption, amendment, modification, repeal or re-enactment of any existing Indian law; or
  - c) change in interpretation or application of any Indian law by a competent court, Tribunal or Indian Governmental Instrumentality which is the final authority under law for such interpretation or application; or
  - d) change by any competent statutory authority, in any condition or covenant of any consent or clearances or approval or licence available or obtained for the project; or
  - e) coming into force or change in any bilateral or multilateral agreement/ treaty between the Government of India and any other Sovereign Government having implication for the transmission system regulated under these Regulations;
  - f) any change in taxes or duties, or introduction of any taxes or duties levied by the Central or any State Government excluding the change in taxes and duties related to O&M expenses:

Provided that financial implication of change in law in relation to a Transmission Service Agreement (TSA) shall be in line with the provisions of TSA;

- (r) “**Commission**” means the Himachal Pradesh Electricity Regulatory Commission;
- (s) “**Competitive Bidding**” means a transparent process for procurement of equipment, services and works in which bids are invited by the Transmission Licensee 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;

- (t) **“Conduct of Business Regulations”** means the Himachal Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations, 2005, as amended from time to time;
- (u) **“Contracted Capacity”** means the capacity in MW contracted by a long-term Transmission System User as part of its long-term power procurement plan through a power purchase agreement or arrangement, and shall be equivalent to the deemed Transmission Capacity Right of a Transmission System User;
- (v) **“Control period”** means a multi-year period comprising of five financial years from April 1, 2024 to March 31, 2029, and as may be extended by the Commission;
- (w) **“Cut-off date”** means the last day of the financial year after thirty six months from the date of commercial operation of the project;
- (x) **“Date of commercial operation”** or **“COD”** means the date declared by the Transmission Licensee from 0000 hour of which an element of the transmission system is in regular service after successful charging and trial operation for transmitting electricity at rated voltage and communication signal from sending end to receiving end:

Provided that:

- (i) Where the transmission line or sub-station is dedicated for evacuation of power from a particular generating station, the generating company(ies) and Transmission Licensee shall endeavour to ensure commissioning of the generating station and the transmission system simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement;
- (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, 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. The Commission in such cases, may approve the date of commercial operation prior to the transmission system or an element coming into regular service:

Provided that the date of commercial operation shall not be a date prior to the scheduled date of commercial operation mentioned in the implementation agreement or transmission service agreement or the investment approval, as the case may be, unless mutually agreed to by all Parties;

- (y) **“Day”** means the 24 hour period starting at 0000 hour;
- (z) **“De-capitalisation”** means reduction in Gross Fixed Assets of the project as admitted by the Commission corresponding to inter-unit transfer of assets or the assets taken out from service;

- (za) **“De-commissioning”** means removal from service of a transmission system or element thereof, after it is certified by any authorized agency, either on its own or on an application made by the Transmission Licensee 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;
- (zb) **“Default Trigger Date”** means,-
- (i) in case of non-payment of dues, one month after the due date of payment or two and half months after the presentation of bill by the Transmission Licensee, whichever is later; and
  - (ii) in case of non-maintenance of the payment security mechanism, shall be from the next bank working day after the payment security mechanism due to be replenished but is not done;
- (zc) **“Detailed Project Report Scheme” or “DPR Scheme”** means a capital expenditure Scheme with projected capital cost exceeding the limits specified in these Regulations, for which the Licensee is required to obtain prior approval of the Commission by submitting a Detailed Project Report (DPR) along with other relevant documents as prescribed in these Regulations;
- (zd) **“Distribution Licensee”** means a licensee authorised to operate and maintain a distribution system for supplying electricity to the consumers in his area of supply;
- (ze) **“Due date”** means the date by which the bill for the charges for the transmission service provided by a Transmission Licensee are to be paid, in accordance with the Transmission Service Agreement and in case not specified in the Transmission Service Agreement, forty-five days from the date of presentation of the bill by such Transmission Licensee:
- Provided that if the due date for payment of any invoice falls on a bank non-working day, the next bank working day shall be considered as due date for payment;
- (zf) **“Element”** means an asset which has been distinctively defined under the scope of the transmission project in the Investment Approval such as transmission lines including line bays and line reactors, substations, bays, compensation device, Interconnecting Transformers;
- (zg) **“Existing project”** means a project declared under commercial operation prior to the date of effectiveness of these Regulations;
- (zh) **“Expansion project”** shall include any augmentation of the existing transmission system;
- (zi) **“Expected Revenue from Tariff and Charges”** means the revenue estimated to accrue to Transmission Licensee from the Regulated Business at the prevailing tariffs and charges;

- (zj) “**Expenditure Incurred**” means the fund, whether the equity or debt or both, actually deployed and paid in cash or cash equivalent, for creation or acquisition of a useful asset and does not include commitments or liabilities for which no payment has been released;
- (zk) “**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;
- (zl) “**Financial year**” means a period commencing on 1<sup>st</sup> April of a calendar year and ending on 31<sup>st</sup> March of the subsequent calendar year;
- (zm) “**Force Majeure Event**” means, with respect to any party, any event or circumstance, or combination of events or circumstances, which is not within the reasonable control of, and is not due to an act of omission or commission of that party and which, by the exercise of reasonable care and diligence, could not have been prevented; and, without limiting the generality of the foregoing, shall include the following events or circumstances:
- (i) acts of God, including but not limited to lightning, landslide, storm, action of the elements, earthquakes, flood, torrential rains, drought and natural disaster or exceptionally adverse weather conditions;
  - (ii) strikes and industrial disturbances having a State-wide or extensive impact in the area of supply of a Licensee, but excluding strikes and industrial disturbances in the Licensee's own organization;
  - (iii) acts of public enemy, war (declared and undeclared), blockades, embargo, invasion, armed conflict or act of foreign enemy, insurrections, riots, revolution, sabotage, terrorist or military action, vandalism and civil disturbance;
  - (iv) unavoidable accident, including but not limited to fire, explosion, radioactive contamination and toxic chemical contamination;
  - (v) any shutdown or interruption of the Grid, which is required or directed by the State or Central Government or by the Commission or by the concerned Load Despatch Centre; and any shut down or interruption, which is required to avoid serious and immediate risks of a significant plant or equipment failure;
  - (vi) Delay in obtaining statutory approval for the project except where the delay is attributable to project developer;
- (zn) “**Grid**” means the high voltage backbone system of inter-connected transmission lines, substations and generating plants;
- (zo) “**Implementation Agreement**” means any agreement or covenant entered into (i) between the Transmission Licensee and the generating company or (ii) between Transmission Licensee and developer of the interconnected transmission system for the execution of generation and transmission projects in a coordinated manner,

laying down the project implementation schedule and mechanism for monitoring the progress of the projects;

- (zp) “**Intra-State Transmission System**” means any system for conveyance of electricity by transmission lines within the area of the State of Himachal Pradesh and includes all transmission lines, sub-stations and associated equipment of the Transmission Licensees in the State:

Provided that the definition of point of separation between a transmission system and distribution system and between a generating station and transmission system shall be guided by the provisions of the Regulations notified by the Central Electricity Authority under clause (b) of Section 73 of the Act;

- (zq) “**Investment Approval**” means approval by the Commission conveying administrative sanction for the project including funding of the project and the timeline for the implementation of the project.

Provided that the date of Investment Approval shall be reckoned from the date of the approval by the Commission;

- (zr) “**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;

- (zs) “**Late payment surcharge**” means the charges payable by a user of a transmission system to a Transmission Licensee on account of delay in payment of monthly charges beyond the due date;

- (zt) “**Licence**” means a Licence granted by the Commission under Section 14 of the Act;

- (zu) “**Licensed Business**” means the functions and activities, which the licensee is required to undertake in terms of the licence granted by the Commission or being a deemed licensee under the Act;

- (zv) “**Licensee**” means a person who has been granted a licence and shall include a deemed licensee;

- (zw) “**Long-Term Customer**” shall have the same meaning as defined in Himachal Pradesh Electricity Regulatory Commission (Grant of Connectivity, Long-term and Medium-term intra-State Open Access and Related Matters) Regulations, 2010 as amended from time to time;

- (zx) “**Long Term Access**” shall have the same meaning as defined in Himachal Pradesh Electricity Regulatory Commission (Grant of Connectivity, Long-term and Medium-term intra-State Open Access and Related Matters) Regulations, 2010 as amended from time to time;

- (zy) “**MCLR**” shall mean One Year Marginal Cost of Funds based Lending Rate;

- (zz) “**Medium Term Open Access**” shall have the same meaning as defined in Himachal Pradesh Electricity Regulatory Commission (Grant of Connectivity, Long-term and



Medium-term intra-State Open Access and Related Matters) Regulations, 2010 as amended from time to time;

- (zza) “**Mid-term Performance Review**” means the review of performance of the Transmission Licensee undertaken by the Commission for the year after the mid-year of the control period and this shall also include the true up of the previous control period and True Up of previous years of the control period;
- (zzb) “**Non-Tariff Income**” means income other than income from tariff derived by use of assets of core business and may include proportion of income from other business;
- (zzc) “**Officer**” means an officer of the Commission;
- (zzd) “**Operation and Maintenance expenses**” or “**O&M expenses**” means the expenditure incurred on operation and maintenance of the system by the Transmission Licensee and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads, but excludes CSR expenses;
- (zze) “**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;
- (zzf) “**Other Business**” means any business of the Transmission Licensee other than the licensed/regulated business;
- (zzg) “**Outstanding dues**” means the dues of a Transmission Licensee, not stayed by a competent court or Tribunal or dispute resolution agency as designated in the Transmission Service Agreement, which remains unpaid by the beneficiary beyond the due date;
- (zzh) “**Payment Security Mechanism**” means Letter of Credit or Letter of Credit backed by Escrow Account as per the Transmission Service Agreement between the Transmission Licensee and the distribution licensee or other user of transmission system; or such other agreements by whatever name called and binding on the distribution licensee or any other user of the transmission system for transmission services and shall also include advance payment;
- (zzi) “**Petitioner**” means the Transmission Licensee, who has filed a Petition for determination of Multi Year Tariff (MYT) or for True up or Mid-term Review in accordance with the Act and these Regulations, and includes the Transmission Licensee whose Tariff is the subject of a review by the Commission on a Suo-motu basis or as part of a Truing-up exercise or Mid-term Review;
- (zzj) “**Project**” means all components and elements of the Transmission system including communication system;
- (zzk) “**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 and vigilant in executing the project;

- (zzl) “**Quarter**” means the period of three months commencing on the first day of April, July, October and January of each financial year in case of existing project, and in case of a new project, in respect of the first quarter, from the date of commercial operation to the last day of June, September, December or March, as the case may be;
- (zzm) “**Rated Voltage**” means the manufacturer’s design voltage at which the transmission system is designed to operate and includes such lower voltage at which any transmission line is charged or for the time being charged, in consultation with Transmission System Users;
- (zzn) “**Regulated Business**” means any electricity business, which is regulated by the Commission;
- (zzo) “**Scheduled Commercial Operation Date**” or “**SCOD**” means the date(s) of commercial operation of a transmission system or element thereof and associated system as indicated in the Investment Approval or as agreed in transmission service agreement, whichever is earlier;
- (zzp) “**Short Term Open Access**” shall have the same meaning as defined in Himachal Pradesh Electricity Regulatory Commission (Grant of Connectivity, Long-term and Medium-term intra-State Open Access and Related Matters) Regulations, 2010 as amended from time to time;
- (zzq) “**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;
- (zzr) “**State**” means the State of Himachal Pradesh;
- (zzs) “**Tariff**” means the schedule of charges for transmission of electricity together with terms and conditions for application thereof;
- (zzt) “**Terminal Liabilities**” means terminal benefits such as Death-cum-Retirement Gratuity, Ex- Gratia, Pension including Family Pension, Commuted Pension, Leave Encashment, LTC, Dearness relief, Interim relief, Medical reimbursement including fixed medical allowance in respect of pensioners etc.;
- (zzu) “**Transmission System**” means a line or a group of lines with or without associated substation, and includes equipment associated with transmission lines and substations;

- (zzv) “**Transmission Capacity Rights**” means the right of a Transmission System User to transfer power in MW, under normal circumstances, between such points of injection and drawal as may be set out in the Transmission Service Agreement;
- (zzw) “**Transmission Licensee**” means a person granted a license for intra-state transmission of electricity in the State and includes any person deemed to be a Transmission Licensee for Intra-state transmission of electricity (including dedicated transmission lines though operating in two States but primarily for the conveyance of power with reference to the State);
- (zzx) “**Transmission Loss**” means the energy losses in the transmission system of a Transmission Licensee;
- (zzy) “**Transmission Service Agreement**” or “**TSA**” means the agreement, contract, memorandum of understanding, or any such covenants, which contains the terms and conditions under which a Transmission System User is entitled to access an Intra-State Transmission System of a Transmission Licensee;
- (zzz) “**Transmission System**” means a line or a group of lines with or without associated Sub-station, and includes equipment associated with transmission lines and Sub-stations;
- (zzza) “**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, with requisite metering system, telemetry and protection system in service;
- (zzzb) “**Useful life**” in relation to a unit of a transmission system from the COD shall mean the following, namely:-
- i. AC and DC sub-station – 35 years
  - ii. Transmission line - 35 years;
  - iii. Communication System- 15 years
- (zzzc) “**User**” means a Licensee, a Generating Company, a person who has set up a captive generating plant, or a consumer availing open access, utilizing the transmission system of a Transmission Licensee;
- (zzzd) “**Year**” means financial year ending on 31" March, and
- (i) “Current Year” shall mean the year in which the petition for determination of tariff is filed,
  - (ii) “Previous Year” shall mean the year immediately preceding the current year,
  - (iii) “Ensuing Year” shall mean the year following the current year; and
- (2) The words and expressions occurring in these Regulations and not defined herein but defined in the Act or Grid Code or State Grid Code shall bear the same meanings as respectively assigned to them in the Act or Grid Code or State Grid Code and the words and expressions used herein but not specifically defined herein or in the Act or Grid Code or

State Grid Code shall have the meanings generally assigned to them in the electricity industry.

- (3) The words “Application” or “Petition” shall be interpreted synonymously.

## **PART-II**

### **GUIDING PRINCIPLES**

- 4. General Approach.-** (1) In accordance with the principles laid down in these Regulations, the Commission shall determine the aggregate revenue requirement (ARR) for the transmission business.

- (2) Tariff determined by the Commission and the directions given in the tariff order made by the Commission shall be quid pro quo and mutually inclusive. The tariff determined shall, within the period specified by it, be subject to the compliance of the directions to the satisfaction of the Commission and their non-compliance shall lead to such amendment, revocation, variation and alteration of the tariff, as may be ordered by the Commission.
- (3) The tariff order shall, unless amended or revoked, continue to be in force for such period as may be specified in the tariff order. In the event of failure on the part of the licensee to file the Aggregate Revenue Requirement (ARR), the tariff determined by the Commission shall cease to operate, unless allowed to be continued for a further period with such variations, or modifications, as may be ordered by the Commission.

- 5. Multi Year Tariff (MYT) Framework.-** (1) The Commission shall adopt multiyear tariff framework for approval of ARR and expected revenue from tariffs and charges. The ARR and tariffs will be determined for the control period.

- (2) Multi-Year Tariff Petition comprising forecast of Aggregate Revenue Requirement for the entire Control Period and expected revenue from existing tariff or Fees and Charges, expected revenue gap or surplus, for each year of the Control Period, shall be submitted by the Applicant:

Provided that Transmission Licensee shall also submit proposed tariff or Fees and Charges for each year of the Control Period:

Provided further that performance parameters, whose trajectories have been specified in these Regulations, shall form the basis for projection of Aggregate Revenue Requirement for the Control Period:

Provided also that Multi-Year Tariff Petition shall also include truing up for FY 2022-23 or for any financial year prior to FY 2022-23 for which truing-up is yet to be completed, to be carried out under HPERC (Terms and conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time.

(3) The Multiyear Tariff framework shall be based on the following:-

- (a) **Business plan** of the Transmission Licensee for the entire control period to be submitted to the Commission for approval, prior to the beginning of the control period;
- (b) **Trajectory for specific parameters** shall be stipulated by the Commission, where the performance of the applicant is sought to be improved through incentives and disincentives.

**6. Determination of Baseline.-** The baseline values (operating and cost parameters) for the base year of the control period shall be determined by the Commission and shall be based on the approved values by the Commission, the latest audited accounts, estimate of the actuals for the relevant year, prudence check and other factors considered appropriate by the Commission. The Commission may re-determine the baseline values for the base year based upon the actual audited accounts of the base year.

**7. Segregation of Accounts.-** The licensee shall maintain separate accounts and sub balance sheets for each of the other businesses, Inter and Intra-state transmission systems and also for those projects wherein the status with regard to nature of assets whether Inter-State or Intra-State are not clear:

Provided that the licensee shall follow a reasonable basis for allocation of all joint and common costs between the transmission business including Inter-state, Intra-state transmission systems, under execution projects and the other business and shall submit the Accounting Statements, as approved by its board of directors, to the Commission alongwith his application for determination of tariff:

Provided further that where the sum total of the direct and indirect costs of such other business exceeds the revenues from such other business or for any other reason, no amount shall be allowed to be added to the aggregate revenue requirement of the licensee on account of such other business.

**8. Business Plan.-** (1) The Transmission Licensee shall file a Business Plan along with MYT Petition, for the Control Period of financial years from 1<sup>st</sup> April, 2024 to 31<sup>st</sup> March, 2029 for approval of the Commission on or before 30<sup>th</sup> November of the year preceding the first year of the Control Period for a duration covering the entire Control Period along with the MYT Petition. The Business Plan for the Transmission Licenses shall be for the entire Control Period and shall, interalia, contain-

- (a) Capital investment plan which should be commensurate with load growth and quality improvement alongwith its cost-benefit analysis. The investment plan should also include yearly phasing of capital expenditure alongwith the source of funding, financing plan and corresponding capitalisation schedule;
- (b) The appropriate capital structure of each scheme proposed and cost of financing (interest on debt) and return on equity, terms of the existing loan agreements, etc;

- (c) Transmission loss reduction trajectory for each year of the Control Period, including details of the measures proposed to be taken for achieving the target loss;
- (2) The Capital Investment Plan covering the entire MYT Control Period will be submitted in the following two parts:
  - (a) Ongoing schemes/works of the previous MYT Control Period (i.e. works / schemes which are under construction or where full payments have not yet been made or where Supply/Work Orders have not been placed). All spillover works will be included in this;
  - (b) Schemes to be taken up in the order of priority giving the schedule over the full MYT Control Period. The likely date of completion should also be given. This will also include such schemes which were part of the Capital Investment Plan of the previous MYT Control Period but could not be started and which the Petitioner considers necessary to take up during the present Control Period.
- (3) The capital investment plan shall be in conformity with the plans made by the CEA/CTU/STU/ Distribution Licensee(s). The investment plan shall be scheme-wise. The Petitioner shall submit the Detailed Project Reports (DPRs) for all the schemes as per Part (a) and (b) above which shall include:
  - (a) Purpose of investment (i.e. replacement of existing assets, meeting load growth, technical loss reduction, meeting reactive energy requirements, improvement in quality and reliability of supply, etc);
  - (b) Broad Technical Specifications of the proposed investment and supporting details;
  - (c) Capital Structure;
  - (d) Capitalization Schedule;
  - (e) Financing Plan, including identified sources of investment;
  - (f) Physical targets;
  - (g) Cost-benefit analysis;
  - (h) Prioritization of proposed Investments;

Provided that DPRs will not be necessary for schemes under Rs. 10 Crore for Transmission Business:

Provided further that the total capital expenditure on non-DPR schemes in any year should not exceed 20% of that for DPR schemes during that year:

Provided further that the Transmission Licensee shall also submit all details including DPRs and other approval documents, of Schemes funded through a Central or State Grant or through Consumer Contribution or through Deposit works and/or Loan convertible to grant on fulfillment of specified conditions, to the Commission prior to the initiating execution of such Schemes:

Provided further that Transmission Licensee shall be required to ensure that the procurement of the assets have been undertaken in a competitive and transparent manner. Further, the assets so capitalized as a part of the approved capital investment plan

under these Regulations should necessarily be geo-tagged and properly recorded in Fixed Asset Register (FAR) for allowance of the capitalization of the same by the Commission:

Provided further that regarding the assets already capitalized as on 1<sup>st</sup> April, 2024, Transmission Licensee shall prepare and submit to the Commission a time-bound plan to undertake the geo-tagging in phased manner, preferably within the Control Period, along with the MYT Petition:

Provided further that Transmission Licensee must provide access of the details of geo- tagging to the Commission for online monitoring.

- (4) The Commission shall approve the capital investment plan submitted by the Transmission Licensee for the entire control period after doing prudence check. The same would be considered for computation of ARR, wherein the amount of electricity transmitted by the transmission system shall be projected considering the estimated growth plan of transmission customer and any plans of new transmission system, based on network expansion plans within the State.
- (5) For each year of the control period, the Commission shall watch over the actual capital expenditure and capitalization vis-à-vis the approved capital expenditure and capitalization schedule. In the normal course, the Commission shall not revisit the approved capital investment plan (capital expenditure and the capitalization schedule) during the control period and adjustments to depreciation, interest on capital loan and return on equity on account of variations for the actual capital expenditure incurred and capitalization done vis-à-vis approved capital investment plan (capital expenditure and capitalization), shall be done during the mid-term performance review and at the time of end of control period true up.
- (6) In case the capital expenditure is required for emergency work which has not been approved in the Capital Investment Plan, the licensee shall submit an application containing all relevant information along with reasons justifying emergency nature of the proposed work seeking investment approval by the Commission. The licensee shall take up the work prior to the approval of the Commission provided that the emergency nature of the scheme has been certified by its Board of Directors.
- (7) Any licensee intending to establish, operate and maintain or augment capacity of a transmission system not been approved in the Capital Investment Plan, shall file an application/petition under affidavit to the Commission in accordance with HPERC (Conduct of Business) Regulations, 2005, as amended from time to time, for approval of the project capital cost and financing plan before taking up a project. The application/ petition of transmission system for investment approval shall clearly provide the purpose of the project as follows:
  - (a) The application/petition shall consist of information on system strengthening, load growth, etc. as may be relevant for particular licensee, its cost-benefit analysis and other details such as location of the project, site specific features, break up of capital cost, financial package, performance parameters, commissioning schedule, reference price level, estimated

completion cost including foreign exchange component (if any), environment standards prescribed and to be achieved, etc:

Provided that where the Commission has given an approval to the estimated capital cost and financing plan, the same shall act as a guiding factor for applying prudence check on the actual capital expenditure while determining the ARR and Tariffs for a particular licensee.

**9. Specific Trajectory for Certain Variables.-** (1) The Transmission Licensee in its business plan filings shall submit and propose the trajectory for the achievement of quality and reliability targets. The Transmission Licensee shall submit its performance on each parameter in the form and manner laid down by the Commission.

(2) The Commission shall monitor the following parameters during the control period: -

- (a) Transmission system availability;
- (b) Transmission losses;
- (c) transformer failure, across various capacities which represents the number of transformer failures as a percentage of the total number of transformers in that specified capacity within the transmission system, over a specified period of time.

(3) The Commission shall stipulate a trajectory for certain variables having regard to the past performance as also the performance of similarly situated licensees:

Provided that the variables for which a trajectory shall be stipulated, shall include but shall not be limited to Transmission losses, Transmission system availability, Transformer failure rate etc:

Provided further that this trajectory should provide for sharing of gains and losses with the customers on account of superior and inferior performance as against the targets prescribed.

**10. MYT Petition for the Control Period.-** (1) The applicant shall submit under affidavit and in accordance with HPERC (Conduct of Business) Regulations, 2005, as amended from time to time, the forecast of Aggregate Revenue Requirement and expected revenue from tariff for each year of the Control Period, accompanied by fees applicable, latest by 30<sup>th</sup> November of the year previous to the start of the Control Period in the formats specified by the Commission.

(2) Forecast of Aggregate Revenue Requirement for each of the financial year of the Control Period:

- (a) For projecting different components of Aggregate Revenue Requirement for each financial year of the Control Period, the Applicant shall develop a mathematical model. For this purpose, applicant may utilize suitable macro-economic variables, market indexes, past year's trends etc.
- (b) Applicant shall further submit a soft copy of the above model with all the formulas and linkages along with its MYT Petition for Tariff determination.



- (3) Forecast of expected revenue from tariff and charges:
  - (a) The applicant shall develop mathematical model for projecting the expected revenue from tariff and charges based on prevailing transmission tariffs as on the date of making the application and estimates of transmission capacity allocated to Transmission System Users which includes Open Access Customers for each financial year of the Control Period;
  - (b) The applicant shall submit a soft copy of the above model with all the formulas and linkages along with its MYT Petition for tariff determination.

**11. Preparation & submission of Annual Accounts, Reports etc.-** (1) Every Applicant shall prepare annual statement of accounts and also prepare annual reports and statistics, giving an account of its activities during the current and previous year and likely to be undertaken in the remaining years of the MYT Control Period, including the ensuing year. The report of activities shall also indicate targets and achievements in respect of various performance parameters. These reports shall be furnished to the Commission in duplicate, by 30<sup>th</sup> November every year.

- (2) The Commission may also direct the Applicants to submit the half yearly accounting statements, as the Commission may require for reviewing their financial performance.
- (3) The Commission may also direct the Applicants to submit to the Commission or such other authority, as it may designate in this behalf, such additional information as the Commission may require for the performance of its functions.
- (4) The Commission at an appropriate time may specify the forms for preparation of separate Regulatory accounts.

**12. Tariff determination.-** (1) The Commission shall determine the tariff/charges, of a Transmission Licensee covered under Multi-year tariff framework for each financial year during the Control Period, having regard to the following:

- (a) The MYT principles specified under these Regulations; and
  - (b) The approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges for such financial year, including approved modifications to such forecast; and
  - (c) Impact of truing up for previous financial year and performance review for the current financial year; and
  - (d) Approved gains and losses to be allowed as pass through in tariffs.
- (2) Tariff in respect of the transmission system may be determined for the whole of the transmission system or for the individual transmission line / Sub-station:

Provided that:

- (i) In case of commercial operation of all elements of a transmission system prior to 1<sup>st</sup> April, 2024, the Transmission Licensee shall file consolidated petition in respect of the entire transmission system for the purpose of determination of tariff for the

period 1<sup>st</sup> April, 2024 to 31<sup>st</sup> March, 2029:

- (ii) In case of commercial operation of elements of the transmission system on or after 1<sup>st</sup> April, 2024, the Transmission Licensee shall file a consolidated Petition, combining all elements of the transmission system which are anticipated to achieve commercial operation during the next two months from the date of application.
- (3) If the information furnished by the Transmission Licensee in the Petition is in accordance with these Regulations, the Commission, in case of a new transmission system or element thereof, through a specific prayer in the tariff application may consider granting interim tariff of up to seventy per cent (70%) of the tariff claimed from the date of commercial operation during the first hearing of the application:

Provided that in case the final tariff determined by the Commission is lower than the interim tariff by more than 30%, the Transmission Licensee shall return the excess amount recovered from the users with carrying cost.

**13. Mid-term Performance Review.-** (1) A Petition for Mid-term Review and Truing-up of the Aggregate Revenue Requirement for the previous Years of the Control Period and/or for the previous control period, shall be filed by 30<sup>th</sup> November, 2026 by the Transmission Licensee:

Provided that the Petition shall include information in such form as may be stipulated by the Commission, together with the Accounting Statements, extracts of books of account and such other details, including Cost Accounting Reports or extracts thereof, as it may require to assess the reasons for and extent of any difference in operational and financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from Tariff and charges:

Provided further that if the Petition is not filed within the specified timelines and/or data sought by the Commission for processing the Petition is not submitted within the stipulated time, then the carrying cost due to consequential delay in issue of the order, shall not be allowed to the Transmission Licensee.

- (2) The scope of the Mid-term Review shall be a comparison of the actual operational and financial performance vis-à-vis the approved forecast for the first three years of the Control Period; and revised forecast of Aggregate Revenue Requirement, expected revenue from existing Tariff, expected revenue gap, and proposed Tariffs for the fourth and fifth year of the Control Period:

Provided that as part of the Mid-term Review, the Commission may, inter-alia, modify the O&M expenses, capital expenditure related expenses, principles/basis of tariff categorisation, applicability of charges and Transmission Tariff, as considered appropriate based on the data made available for the first three years of the Control Period:

Provided further that necessary justification for the modifications made in the Mid-term Review shall be elaborated in the Mid-term Review Order.

- (3) Upon completion of the Mid-term Review, the Commission shall pass an order recording-
- (a) the approved aggregate gain or loss to the Licensee on account of controllable factors for the previous years of the control period, and the amount of such gains or such losses that may be shared in accordance with Regulation 19;
  - (b) the approved aggregate gain or loss to the Licensee on account of uncontrollable factors for the previous years of the control period, and the amount of such gains or such losses that were not recovered during the respective years and which may be shared in accordance with Regulation 18;
  - (c) the approved modifications to the Aggregate Revenue Requirement and Tariffs or Fees and Charges for the remainder of the Control Period.

**14. True Up.-** (1) The true up shall be conducted by the Commission, for the previous years for which the actual/audited accounts are made available by the Transmission Licensee, at the times and as per principles stated below:-

- (a) at the times -
    - (i) for the previous years of the previous control period:- along with the petition for determination of ARR-cum-transmission tariff for the control period;
    - (ii) for the previous years of the control period and for the previous control period:- along with the mid-term performance review during the control period;
    - (iii) for the control period true up:- along with the mid-term performance review of the next control period;
  - (b) as per principles -
    - (i) the Commission shall review actual capital investment vis-à-vis approved capital investment;
    - (ii) depreciation and financing cost, which includes cost of debt including working capital (interest), cost of equity (return) shall be trued up on the basis of actual/audited information and prudence check by the Commission;
    - (iii) any surplus and deficit on account of O&M expenses shall be to the account of the Transmission Licensee and shall not be trued up in ARR; and
- (2) The gain or loss on account of other controllable factors, unless otherwise specifically provided by the Commission shall be to the account of the Transmission Licensee.
- (3) Notwithstanding anything contained in these Regulations, the gains or losses in the controllable items of ARR on account of force majeure, change in law and change in taxes and duties shall be passed on as an additional charge or rebate in ARR over such period as may be laid down in the order of the Commission.

**15. Carrying Cost or Holding Cost.-** The Commission shall allow Carrying Cost or Holding Cost, as the case may be, on the admissible amounts at the weighted average one-year Marginal Cost of Funds-based Lending Rate ('MCLR') prevailing during the concerned Year as declared by the State Bank of India from time to time, plus 150 basis points:

Provided that in case of delay in filling the true-up Petition(s) by the Transmission Licensee, Carrying Cost or Holding Cost shall not be allowed on the net entitlement after the due date of filling the true-up Petition, i.e. 30<sup>th</sup> November, as per these Regulations. However, in case the true-up results in surplus, the carrying cost shall be applicable and recoverable from the Transmission Licensee.

**16. Operational Norms.-Normative Annual Transmission System Availability Factor (NATAF).-** (1) For recovery of Annual Fixed Charges, NATAF shall be as under:

- (1) AC system: 98.00%;
- (2) HVDC bi-pole link 95.00% and HVDC back-to-back station: 95.00%:

Provided that the normative annual transmission availability factor of the HVDC bi-pole links shall be 85% for first twelve months from the date of commercial operation.

(2) For Incentive, NATAF shall be as under:

- (1) AC system: 98.50%;
- (2) HVDC bi-pole link and HVDC back-to-back Station: 97.50%:

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

Provided further that for AC and HVDC system, actual outage hours shall be considered for computation of availability upto two trippings per year. After two trippings in a year, for every tripping, additional 12 hours outage shall be considered in addition to the actual outage hours:

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

(3) Auxiliary Energy Consumption in the Sub-station:

The charges for auxiliary energy consumption in the substation for the purpose of air-conditioning, lighting and consumption in other equipment shall be borne by the Transmission Licensee and included in the normative operation and maintenance expenses.

**17. Controllable and uncontrollable factors.-** (1) For the purpose of these Regulations, the term “uncontrollable factors” shall comprise of the following factors, which were beyond the control of the Applicant, and could not be mitigated by the Applicant:

- (a) Force Majeure events;
- (b) Change in law, judicial pronouncements, and orders of the Central Government, the State Government or the Commission;

- (c) Economy wide influences such as unforeseen changes in inflation rates, taxes and statutory levies;
- (d) Delay in statutory clearances for land acquisition except where the delay is attributable to the Transmission Licensee:

Provided that where the Applicant believes, for any variable not specified above, that there is a material variation or expected variation in performance for any financial year on account of uncontrollable factors, such Applicant may apply to the Commission for inclusion of such variable at the Commission's discretion, under these Regulations for such financial year.

- (2) Some illustrative variations or expected variations in the performance of the Applicant, which may be attributed by the Commission to controllable factors include, but are not limited to the following:

- (a) Variations in capitalisation on account of time and/or cost overruns/ efficiencies in the implementation of a capital expenditure project not attributable to an approved change in scope of such project, change in statutory levies or force majeure events;
- (b) Variation in Interest and Finance Charges, Return on Equity and Depreciation on account of variation in capitalisation, as specified in clause (a) above;
- (c) Variations in Intra-State transmission losses of Transmission Licensee;
- (d) Variations in performance parameters;
- (e) Variations in interest on working capital;
- (f) Variations in labour productivity;
- (g) Variation in Operation & Maintenance expenses;
- (h) Variation in Operating norms.

**18. Mechanism for pass through of gains or losses on account of uncontrollable factors.-** The approved aggregate gain or loss to the Transmission Licensee on account of uncontrollable factors shall be passed through, as an adjustment in the tariff, as specified in these Regulations and as may be determined in the Order of the Commission passed under these Regulations.

**19. Mechanism for sharing of gains or losses on account of controllable factors.-** (1) The approved aggregate gain to the Transmission Licensee on account of controllable factors shall be dealt with in the following manner:

- (a) Two-third of the amount of such gain shall be passed on as a rebate in tariff over such period as may be stipulated in the Order of the Commission;
- (b) The balance amount, which will amount to one-third of such gain, shall be utilised at the discretion of the Transmission Licensee.

- (2) The approved aggregate loss to the Transmission Licensee on account of controllable factors shall be dealt with in the following manner:
- (a) One-third of the amount of such loss shall be passed on as an additional charge in tariff over such period as may be stipulated in the Order of the Commission; and
  - (b) The balance amount, which will amount to two-third of such loss, shall be absorbed by the Transmission Licensee.
- (3) The gain or loss on account of other controllable factors, unless otherwise specifically provided by the Commission shall be to the account of the Transmission Licensee.

**20. Determination of Tariff.-** (1) Proceedings to be held by the Commission for determination of tariff shall be in accordance with the HPERC (Conduct of Business) Regulations, 2005, as amended from time to time.

- (2) Notwithstanding anything contained in these Regulations, the Commission shall have, at all times, the authority, either on Suo-motu basis or on a Petition filed by the Transmission Licensee, to determine the tariff or Fees and Charges, including terms and conditions thereof, of Transmission Licensee:

Provided that such determination of tariff or Fees and Charges may be pursuant to an agreement or arrangement or otherwise whether or not previously approved by the Commission and entered into at any time before or after the applicability of these Regulations.

- (3) Notwithstanding anything contained in these Regulations, the Commission shall adopt the tariff, if such tariff has been determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government:

Provided that the Applicant shall provide such information as the Commission may require for satisfying itself that the guidelines issued by the Central Government have been duly followed.

### **PART-III**

#### **PRINCIPLES FOR DETERMINATION OF AGGREGATE REVENUE REQUIREMENT (ARR)**

**21. Capital cost.-** (1) The Capital cost of the transmission system as determined by the Commission after prudence check in accordance with these Regulations shall form the basis for determination of tariff for existing and new projects.

- (2) Only such capital expenditure as is incurred or proposed to be incurred with the approval of the Commission, including that exempted from prior approval, shall be considered after prudence check for tariff purposes.

- (3) The final tariff shall be fixed based on the admitted capital expenditure of the transmission system and shall include capitalised initial spares subject to a ceiling norm.
- (4) The provisions of Accounting Standards (AS 10): Accounting for Fixed Assets of the Institute of Chartered Accountants of India/IAS16: Property, Plant and Equipment issued by the Accounting Standard Board, as amended from time to time, shall apply, to the extent not inconsistent with these Regulations, in determining the original cost of capital expenditure projects and/ or original cost of fixed assets capitalized.
- (5) In case of existing projects, the capital cost admitted by the Commission prior to 1<sup>st</sup> April, 2024 and the additional capital expenditure projected to be incurred for the respective year of the Control Period, as may be admitted by the Commission, shall form the basis for determination of tariff.
- (6) The Capital Cost of a new project shall include the following:
- (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
  - (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
  - (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
  - (d) Interest during construction and incidental expenditure during construction as computed in accordance with these Regulations;
  - (e) Capitalised initial spares subject to the ceiling rates in accordance with these Regulations;
  - (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these Regulations;
  - (g) Adjustment of revenue earned by the Transmission Licensee by using the assets before the date of commercial operation;
  - (h) Expenditure on account of change in law and force majeure events:

Provided also that the Transmission Licensee shall submit documentary evidence in support of its claim of assets being put to use:

Provided also that the Commission may undertake a verification to check if the assets are put to use as submitted by the Transmission Licensee, independent of the tariff determination process.

- (7) The following shall be excluded from the capital cost of the existing and new projects:
- (a) The assets forming part of the project, but not in use, as declared in the tariff Petition;

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

Provided that in case replacement of transmission asset is recommended by State Load Despatch Centre, such asset shall be de-capitalised only after its redeployment:

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

- (c) Any Consumer contribution or grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.
- (d) Any capitalisation done by mere book entries / presentation in the financial statements in order to comply with any statute / rules etc. and not in accordance with the Capital Expenditure approved under these Regulations.

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

- (a) Scrutiny of the capital expenditure, in the light of capital cost of similar projects based on past historical data, wherever available, reasonableness of financing plan, interest during construction, incidental expenditure during construction, use of efficient technology, cost over-run and time over-run, procurement of equipment and materials through competitive bidding and such other matters as may be considered appropriate by the Commission:

Provided that, while carrying out the prudence check, the Commission shall also examine whether the Transmission Licensee has been careful in its judgments and decisions in execution of the project.

- (b) The Transmission Licensee shall furnish the capital cost for execution of the existing and new projects, as per formats specified by the Commission, along with tariff petition for the purpose of creating a database of benchmark capital cost of various components.
- (c) The Commission may get the capital cost of any project vetted by an independent agency or an external expert. However, the same shall be considered as one of the guiding factors only and shall not be binding on the Commission.

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



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

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

- (3) In case of additional costs on account of IDC and IEDC due to delay in achieving the COD, the Transmission Licensee shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds in case of IDC and details of IEDC during the period of delay and liquidated damages recovered or recoverable corresponding to the delay.
- (4) If the delay in achieving the COD is not attributable to the Transmission Licensee, IDC and IEDC beyond SCOD may be allowed after prudence check and the liquidated damages, if any, recovered from the contractor or supplier or agency shall be adjusted in the capital cost of the transmission system.
- (5) If the delay in achieving the COD is attributable either in entirety or in part to the Transmission Licensee or its contractor or supplier or agency, in such cases, IDC and IEDC beyond SCOD may be disallowed after prudence check either in entirety or on pro-rata basis corresponding to the period of delay not condoned and the liquidated damages, if any, recovered from the contractor or supplier or agency shall be retained by the Transmission Licensee.
- (6) The following shall be considered as controllable and uncontrollable factors for deciding time over-run, cost escalation, IDC and IEDC of the project:-
- (a) The “controllable factors” shall include but shall not be limited to the following:-
- (i) efficiency in the implementation of the project not involving approved change in scope of such project, change in statutory levies or change in law or force majeure events; and
  - (ii) delay in execution of the project on account of contractor or supplier or agency of the Transmission Licensee.
- (b) The “uncontrollable factors” shall include but shall not be limited to the following:-
- (i) force Majeure events;
  - (ii) change in law; and
  - (iii) land acquisition, except where the delay is attributable to the Transmission Licensee.

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

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

Provided that the Plant and Machinery cost shall be considered as the original project cost excluding IDC, IEDC, Land Cost and Cost of Civil Works and the Transmission Licensee, for the purpose of estimating Plant and Machinery Cost, shall submit the break-up of head wise IDC and IEDC in its tariff application.

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

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

- (a) Undischarged liabilities recognized to be payable at a future date;
- (b) Works deferred for execution;
- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 24 of these Regulations;
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;
- (e) Change in law or compliance of any existing law; and
- (f) Force Majeure events:

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

- (2) The Transmission Licensee shall submit the details of works asset wise/work wise included in the original scope of work alongwith estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution.

**26. Additional Capitalisation within the original scope and after the cut-off date.-**

(1) The additional capital expenditure incurred or projected to be incurred in respect

of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:-

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;
- (b) Change in law or compliance of any existing law;
- (c) Liability for works executed prior to the cut-off date;
- (d) Force Majeure events;
- (e) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and
- (f) Any additional capital expenditure which has become necessary for efficient operation:

Provided that the approval of additional capital expenditure for efficient operation shall be subject to submission of report on impact assessment done by any reputed third-party technical expert/agency on the benefits realised from previous investments under this head in the last five years.

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

- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these Regulations;
- (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission:

Provided that the claim shall be substantiated with the technical justification duly supported by documentary evidence like test results carried out by an independent agency in case of deterioration of assets, damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level.

**27. Additional Capitalisation beyond the original scope.-** (1) The capital expenditure, in respect of existing transmission system including communication

system, incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:-

- (a) Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;
- (b) Change in law or compliance of any existing law;
- (c) Force Majeure events;
- (d) Need for higher security and safety of the transmission system as advised or directed by appropriate Central/State Government Instrumentality or statutory authorities responsible for national or internal security;
- (e) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;
- (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; and
- (g) Any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets, etc., bought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1st April, 2024:

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

- (2) In case of de-capitalisation of assets of the Transmission Licensee, the original cost of such asset as on the date of de- capitalisation shall be deducted from the value of gross fixed asset. Corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place. Corresponding adjustments in cumulative depreciation and cumulative repayment of loan shall also be made duly taking into consideration the year in which the asset was capitalised.

## **28. Additional Capitalisation on account of Renovation and Modernisation.-**

(1) The Transmission Licensee intending to undertake renovation and modernization (R&M) of the transmission system or element thereof for the purpose of extension of life beyond

the originally recognised useful life for the purpose of tariff, shall file a petition before the Commission for approval of the proposal with a Detailed Project Report giving complete scope, justification, cost-benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost including foreign exchange component, if any, and any other information considered to be relevant by the Transmission Licensee.

- (2) Where the Transmission Licensee, makes an application for approval of its proposal for renovation and modernisation (R&M), the approval may be granted after due consideration of reasonableness of the proposed cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, expected duration of life extension, consent of the beneficiaries or long term customers, if obtained, and such other factors as may be considered relevant by the Commission.
- (3) After completion of the renovation and modernisation (R&M), the Transmission Licensee shall file a petition for determination of tariff. Expenditure incurred or projected to be incurred and admitted by the Commission after prudence check, and after deducting the accumulated depreciation already recovered from the admitted project cost, shall form the basis for determination of tariff.

**29. Approval of capital cost.-** The approved Capital Cost shall be considered for tariff determination and if sufficient justification is provided for any escalation in the Project Cost, the same may be considered by the Commission subject to prudence check:

Provided that in case the actual capital cost is lower than the approved capital cost, then the actual capital cost will be considered:

Provided further that prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

Provided further that in cases where benchmark norms have not been specified, prudence check shall be carried out as per clause (a) of Regulation 22 of these Regulations:

Provided further that if the generating station is not commissioned on the SCOD or actual COD whichever is later of the associated transmission system, the generating company shall bear the transmission charges of the associated transmission system corresponding to Long Term Access granted for the generating station or unit(s) thereof, which have not achieved COD, if the transmission system is declared under commercial operation by the Commission in accordance with these Regulations till the generating station or unit(s) thereof is commissioned:

Provided further that if the associated transmission system is not commissioned on SCOD of the generating station or actual COD whichever is later 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 or otherwise till such alternate arrangement is made, the transmission

licensee(s) shall pay to the generating station, the Annual Transmission Charge of the intra-state transmission system, corresponding to the quantum of Long Term Access, for the period for which the transmission system has got delayed:

Provided further that in cases where benchmark 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.

**30. Consumer Contribution, Deposit Work, Grant and Capital Subsidy.**-(1)The expenses on the following categories of works carried out by the Transmission Licensee shall be treated as specified in sub-regulation (2):-

- (i) Works undertaken from funds, partly or fully, provided by the users, which are in the nature of deposit works or consumer contribution works;
- (ii) Capital works undertaken with grants or capital subsidy received from the State or Central Government; and
- (iii) Other works undertaken with funding received without any obligation of repayment and with no interest costs. works carried out by the Transmission Licensee after obtaining the estimated cost from the users shall be classified as Deposit Works.

(2) The expenses on such capital expenditure shall be treated as follows:-

- (a) normative O&M expenses as specified in these Regulations shall be allowed;
- (b) the debt : equity ratio shall be considered in accordance with Regulation 31, after deducting the amount of financial support received;
- (c) provisions related to depreciation, as specified in Regulation 38, shall not be applicable to the extent of such financial support received;
- (d) provisions related to return on equity capital, as specified in Regulation 34 shall not be applicable to the extent of such financial support received; and
- (e) provisions related to interest on loan capital, as specified in Regulation 36 shall not be applicable to the extent of such financial support received.

**31. Debt-equity ratio.**- For a Capital Investment Scheme declared under commercial operation on or after 1<sup>st</sup> April, 2024, debt-equity ratio as on the date of commercial operation shall be 70:30 of the amount of capital cost approved by the Commission, after prudence check for determination of Tariff:

Provided that the Transmission Licensee shall substantiate such investment of equity and debt through documentary evidence:

Provided further that if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan for the Transmission Licensee for determination of tariff:

Provided further that where equity actually deployed is less than 30% of the capital cost of the capitalised asset, 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.

**32. ARR for Transmission Licensee.-** The aggregate revenue requirement for the transmission business for each year of the control period shall contain the following items: -

- (a) Operation and Maintenance Expenses;
- (b) Return on Equity Capital;
- (c) Tax on Return on Equity;
- (d) Interest on Loan Capital;
- (e) Interest on Working Capital; and
- (f) Depreciation.

**Less:**

- (i) Non-Tariff Income;
- (ii) Short-term Open Access Charges; and
- (iii) Income from other business to the extent specified in these Regulations.

**33. Operation and Maintenance (O&M) Expenses.-** (1) Operation and Maintenance (O&M) expenses shall comprise of the following:-

- (a) salaries, wages, pension contribution and other employee costs;
- (b) administrative and general expenses including insurance charges, if any;
- (c) repairs and maintenance expenses; and
- (d) other miscellaneous expenses, statutory levies and taxes (except corporate income tax).

**(2) O&M Norms.-**

- (a) The Transmission Licensee shall propose separate trajectories of norms for each of the components of O&M expenses viz., employee cost, R&M expense and A&G expense;
- (b) Norms shall be defined in terms of combination of number of personnel per long/medium term consumer, number of personnel per MW of capacity handled for long/medium term consumers or number of personnel per transmission circuit kilometer line length and number of sub-stations alongwith annual expenses per personnel for employee expenses, combination of A&G expense per personnel and A&G expense per long/medium term consumer (or per MW of capacity handled) for A&G expenses and R&M expense as percentage of gross fixed assets for estimation of R&M expenses;
- (c) One-time expenses such as expense due to change in accounting policy, arrears paid due to pay commissions and interim relief etc., shall be excluded from the norms in the trajectory;

- (d) The expenses beyond the control of the Transmission Licensee such as dearness allowance, terminal liabilities in employee cost etc., shall be excluded from the norms in the trajectory;
  - (e) The One-time expenses and the expenses beyond the control of the Transmission Licensee as per clauses (c) and (d) above shall be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check;
  - (f) The norms in the trajectory shall be proposed over the control period with due consideration to productivity improvements and commercial viability;
  - (g) The norms shall be proposed at constant prices of base year and escalation on account of inflation shall be over and above the baseline;
  - (h) Based on the proposal submitted by the Transmission Licensee, the Commission shall fix the norms for the said purposes which shall be taken into account for determining the trajectories for various components of O&M expenses for the remaining years of the control period; and
  - (i) Till such time the norms are fixed by the Commission, the trajectories of various components of O&M expenses shall be submitted by the Transmission Licensee and determined by the Commission on the basis of the actual costs for the previous years in accordance with the provisions of these Regulations.
- (3) The Transmission Licensee shall submit the O&M expenses for the control period as laid down in the multiyear tariff filing procedure. The O&M expenses for the base year will be approved by the Commission taking into account the latest available audited accounts, business plan filed by the Transmission Licensee, estimates of the actuals for the base year, actual O&M expenses for last five (5) years till base year subject to prudence check and any other factors considered appropriate by the Commission.
- (4) The O&M expenses for the  $n^{\text{th}}$  year of the control period shall be approved based on the formula given below:-

$$O\&M_n = R\&M_n + EMP_n + A\&G_n :$$

Where –

$O\&M_n$  = Operation and Maintenance expense for the  $n^{\text{th}}$  year;

$EMP_n$  = Employee Costs for the  $n^{\text{th}}$  year;

$A\&G_n$  = Administrative and General Costs for the  $n^{\text{th}}$  year;

$R\&M_n$  = Repair and Maintenance Costs for the  $n^{\text{th}}$  year.

- (5) The above components shall be computed in the manner specified below:

$$EMP_n = (EMP_{n-1}) \times (1+G_n) \times (1+CPI_{inflation});$$

$$R\&M_n = K \times (GFAn-1) \times (1+WPI_{inflation}); \text{ and}$$

$$A\&G_n = (A\&G_{n-1}) \times (1+WPI_{inflation}) + \text{Provision.}$$

Where –



- (i) EMP<sub>n-1</sub> - Employee Costs for the (n-1)<sup>th</sup> year;
- (ii) A&G<sub>n-1</sub> - Administrative and General Costs for the (n-1)<sup>th</sup> year;
- (iii) Provision: Cost for initiatives or other one-time expenses as proposed by the Transmission Licensee and approved by the Commission after prudence check;
- (iv) 'K' is a constant specified by the Commission in %. Value of K for each year of the Control Period shall be determined by the Commission in the MYT Tariff order based on Transmission Licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-a-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;
- (v) CPI<sub>inflation</sub> - is the average increase in the Consumer Price Index (CPI) for immediately preceding three years;
- (vi) WPI<sub>inflation</sub> - is the average increase in the Wholesale Price Index (CPI) for immediately preceding three years;
- (vii) GFAn-1- Gross Fixed Asset of the Transmission Licensee for the (n-1)<sup>th</sup> year;
- (viii) G<sub>n</sub> is a growth factor for the nth year and it can be greater than or less than zero based on the actual performance. Value of G<sub>n</sub> shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on Transmission Licensee's filings, benchmarking and any other factor that the Commission feels appropriate:

Provided that repair and maintenance expenses as determined shall be utilised towards repair and maintenance works only:

Provided further that, the impact of pay revision (including arrears) shall be allowed on actual during the mid-term performance review or at the end of the control period as per actual/ audited accounts, subject to prudence check and any other factor considered appropriate by the Commission.

**34. Return on Equity Capital.-** (1) Return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower:

Provided that assets funded by consumer contribution, capital subsidies/ grants and corresponding depreciation shall not form part of the capital base. Actual equity infused in the Transmission Licensee as per book value shall be considered as perpetual and shall be used for computation in this Regulation:

Provided that accumulated depreciation, over and above debt repayment, shall be used to reduce the equity base for return on equity after debt repayment is over.

- (2) The return on the equity invested in working capital shall be allowed from the date of start of commercial operation.
- (3) Transmission Licensee shall be allowed 14.5% post-tax return on equity:

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in

Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the transmission system.

**35. Tax on Return on Equity.-** (1) Income tax for Transmission Licensee for the regulated business shall be allowed on Return on Equity, through the tariff charged to the Beneficiary/ies, subject to the conditions stipulated in Regulation 34 of these Regulations:

Provided that no Income Tax shall be considered on the amount of efficiency gains and incentive approved by the Commission, irrespective of whether or not the amount of such efficiency gains and incentive are billed separately:

Provided further that no Income Tax shall be considered on the income from any source that has not been considered for computing the Aggregate Revenue Requirement:

Provided further that the deferred tax liability attributable to the regulated business, only before 31<sup>st</sup> March, 2024 shall be allowed by the Commission, whenever they get materialised, after prudence check.

- (2) Income tax, if any, on the licensed business of the Transmission Licensee shall be treated as expense and shall be recoverable from consumers through tariff. However, tax on any income other than that through its licensed business shall not be a pass through, and it shall be payable by the Transmission Licensee itself.
- (3) Any under-recoveries or over-recoveries of tax on income shall be adjusted every year on the basis of income-tax assessment, under the Income Tax Act, 1961, as certified by the statutory auditors:

Provided that the benefits of tax-holiday, as applicable in accordance with the provisions of the Income Tax Act, 1961 shall be passed on to the consumers.

- (4) The Income Tax actually payable or paid shall be included in the ARR. The actual assessment of Income Tax should take into account benefits of tax holiday, and the credit for carry forward losses applicable as per the provisions of the Income Tax Act, 1961 shall be passed on to the consumers.
- (5) Tax on income, if any, liable to be paid shall be limited to tax on Return on Equity. However, any tax liability on incentives due to improved performance shall not be considered.

**36. Interest on Loan Capital.-** (1) The Transmission Licensee shall provide detailed loan-wise, project-wise and utilization- wise details of all the pending loans.

- (2) 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 loan shall be considered for determination of interest on loan.

- (3) Actual loan or normative loan, if any, shall be referred as gross normative loan in this Regulation.
- (4) The normative loan outstanding as of 1<sup>st</sup> April of 2024 shall be computed by deducting the cumulative repayment as approved by the Commission (basis as mentioned below) upto 31<sup>st</sup> March, 2023 from the gross normative loan.
- (5) The repayment for the control period shall be deemed to be equal to the depreciation allowed for the year.
- (6) Notwithstanding any moratorium period availed by the Transmission Licensee, the repayment of the loan shall be considered from the first year of the control period as per annual depreciation allowed.
- (7) The rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year of the control period, in accordance with terms and conditions of relevant loan agreements, or bonds or non-convertible debentures:

Provided that if no actual loan is outstanding but normative loan is still outstanding, the last available weighted average rate of interest shall be applicable:

Provided further that the interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest:

Provided further that exception shall be made for the existing loans which may have different terms as per the agreements already executed, if the Commission is satisfied that the loan has been contracted for and applied to identifiable and approved projects.

- (8) The Transmission Licensee shall make every effort to refinance the loan as long as it results in net benefit to the users:

Provided that the cost associated with such refinancing shall be eligible to be passed through in tariff and the benefit on account of refinancing of loan and interest on loan shall be shared in the ratio of 50:50 between the Transmission Licensee and the users:

Provided further that the Transmission Licensee shall submit the calculation of such benefit to the Commission for its approval.

### **37. Interest on Working Capital.-** (1) The working capital shall cover,-

- (i) Receivables equivalent to two months of annual fixed charges;
  - (ii) Maintenance spares @ 15% of annual operation and maintenance expenses; and
  - (iii) Operation and maintenance expenses for one month.
- (2) Rate of interest on working capital shall be on normative basis and shall be considered at the bank rate as on 1<sup>st</sup> April, 2024 or as on 1<sup>st</sup> April of the year during the tariff period 2024-29 in which the transmission system including system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2024-29.

- (3) 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.

**38. Depreciation.-** (1) Depreciation shall be calculated for each year of the control period on the original cost of the fixed assets of the corresponding year.

- (2) Depreciation shall not be allowed on assets funded by capital subsidies, consumer contributions or grants.
- (3) The rate of depreciation for each of the components of the fixed assets based on the useful life of the assets shall be as given in Appendix – I:

Provided that the salvage value of any category of assets given in Appendix -I shall be 10% of the initial cost of the asset.

- (4) The rate of depreciation should be based on Straight Line Method (SLM) over the useful life of the assets, after factoring the salvage value of the assets:

Provided that Land shall not be treated as a depreciable asset and its cost shall be excluded while computing 90% of the original cost of the asset.

- (5) The Transmission licensee having fixed asset records for the assets procured before 31<sup>st</sup> March, 2024 shall have one time option to adopt the new rates for the older assets, if opted by the Transmission Licensee:

Provided that in case the Transmission Licensee does not have an asset record to assess the date of commissioning of assets as per the categorization provided in Appendix– I, the Commission shall allow the existing method of depreciation on the assets already commissioned till the issue of last tariff Order:

Provided that record of the assets being commissioned by the Transmission Licensee during the ongoing FY subsequently shall be properly maintained by the Transmission Licensee and the computation of depreciation of such assets shall be in accordance with sub-regulation (3) above.

- (6) Depreciation shall be charged from the first year of operation of the asset:

Provided that in case the operation of the asset is for a part of the year, depreciation shall be charged on proportionate basis.

- (7) A provision of replacement of assets shall be made in the capital investment plan.

**39. Non-Tariff Income.-** (1) All income being incidental to electricity business and derived by the licensee from sources, including but not limited to profit derived from disposal of assets, rents, income from investment and miscellaneous receipts from the transmission customers, excluding income to licensed business from the other business of the Transmission Licensee shall constitute non-tariff income of the licensee.

- (2) The amount of non-tariff income relating to the Transmission Business as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining the Annual Transmission Charges of the Transmission Licensee:

Provided that the Transmission Licensee shall submit full details of his forecast of non-tariff income to the Commission in such form as may be stipulated by the Commission from time to time.

- (3) The indicative list of various heads to be considered for non tariff income shall be as under:-
- (a) Income from rent on land or buildings;
  - (b) Income from sale of scrap;
  - (c) Income from statutory investments;
  - (d) Interest on delayed or deferred payment on bills;
  - (e) Interest on advances to suppliers/contractors;
  - (f) Rental from staff quarters;
  - (g) Rental from contractors;
  - (h) Income from hire charges from contractors and others;
  - (i) Income from advertisements, etc.;
  - (j) Miscellaneous receipts;
  - (k) Excess found on physical verification;
  - (l) Interest on investments, fixed and call deposits and bank balances; and
  - (m) Prior period income:

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

- 40. Income from Other Business.-** Where the Transmission Licensee is engaged in any Other Business under Section 41 of the Act, the income from such business will be calculated in accordance with the Himachal Pradesh Electricity Regulatory Commission (Treatment of Income of Other Businesses of Transmission Licensees and Distribution Licensees) Regulations, 2005 and an amount equal to one-third of the revenues from such Other Business after deduction of all direct and indirect costs attributed to such Other Business shall be deducted from the Aggregate Revenue Requirement in calculating the Annual Transmission Charges of the Transmission Licensee:

Provided that the Transmission Licensee shall follow a reasonable basis for allocation of all joint and common costs between the Transmission Business and the Other Business and shall submit the Allocation Statement, duly audited and certified by the Statutory Auditor, to the Commission alongwith his application for determination of tariff:

Provided further that where the sum total of the direct and indirect costs of such Other Business exceed the revenues from such Other Business for whatever reasons, no

amount shall be allowed to be added to the Aggregate Revenue Requirement of the Transmission Licensee on account of such Other Business.

- 41. Late Payment Surcharge.-** The distribution licensee or a user of the transmission system, as the case may be, shall make timely payments of bills raised by the Transmission Licensee by assigning priority over and above all other payments. In case the payment of any payable bill is delayed beyond a period of 45 days from the date of presentation of the bill, a Late Payment Surcharge shall be payable on the payment outstanding after the due date at the rate equal to the marginal cost of funds based on lending rate for one year of the State Bank of India, as applicable on the 1st April of the Financial Year in which the period lies, plus five per cent and in the absence of marginal cost of funds based lending rate, any other arrangement that substitutes it, which the Central Government may, by notification, in the Official Gazette, specify for the period for the first month of default:

Provided that if the period of default lies in two or more financial years, the base rate of Late Payment Surcharge shall be calculated separately for the periods falling in different year:

Provided further that the rate of Late Payment Surcharge for the successive months of default shall increase by 0.5 per cent for every month of delay:

Provided further that the Late Payment Surcharge shall not be more than three per cent higher than the base rate at anytime:

Provided further that all the bills payable by the distribution licensee or the other user of the transmission system, as the case may be, to Transmission Licensee, shall be time tagged with respect to the date and time of submission of the bill and the payment made by the distribution licensee or the other user of the transmission system, as the case may be, shall be adjusted first against the oldest bill and then to the second oldest bill and so on so as to ensure that payment against a bill is not adjusted unless and until all bills older than it have been paid for:

Provided further that all payments by the Distribution Licensee or the other user of the transmission system, as the case may be, to the Transmission Licensee shall be first adjusted towards Late Payment Surcharge and thereafter, towards monthly charges, starting from the longest overdue bill:

Provided further that in case of non-payment of dues by the Distribution Licensee or the other user of the transmission system, as the case may be, even after two and a half months from the presentation of the bill by the Transmission Licensee, the power supply to the defaulting entity shall be regulated in accordance with Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 notified by the Ministry of Power on 3rd June, 2022 and as amended from time to time.

- 42. Payment Security Mechanism.-** (1) The Distribution Licensee or other user of the transmission system, as the case may be, shall maintain unconditional, irrevocable and adequate payment security mechanism.

- (2) In case of non-maintenance of Payment Security Mechanism, the Transmission Licensee shall regulate power supply to the Distribution Licensee in accordance with Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 notified by the Ministry of Power on 3<sup>rd</sup> June, 2022 and as amended from time to time.
- (3) The supply of power shall only be made if an adequate Payment Security Mechanism is maintained or in the absence thereof, advance payment is made.
- 43. Safety Standards.-** The Transmission Licensee shall develop a safety manual and comply with Regulations framed in this regard by the Central Electricity Authority (CEA) under section 53 and section 177 (2) (b) of the Act.

## **PART-IV**

### **PRINCIPLES FOR DETERMINATION OF TRANSMISSION TARIFF/ CHARGES**

- 44. Transmission Tariff/Charge.-** (1) The transmission charges payable by the transmission customers of the transmission system shall be designed to recover the aggregate revenue requirement computed as annual fixed charges(AFC) by the Commission for each year of the control period:

Provided that the Commission during the control period, through separate notification in the Rajpatra Himachal Pradesh, may, after conducting a detailed study change the existing transmission pricing framework in accordance with that adopted by the Central Electricity Regulatory Commission or any other methodology as it considers appropriate after following the due regulatory process.

- (2) In addition to transmission charges, charges for reactive energy, as may be determined by the Commission in the MYT order, shall also be payable by all the transmission customers of the system.

- 45. Computation and Payment of Transmission Charge.-** (1) The Annual Transmission Charges for the Transmission Licensee shall be determined, based on the norms as specified in these Regulations and recovered on monthly basis as transmission charge from the users who shall share the Transmission Charge in proportion of the allotted transmission capacity or contracted capacity, as the case may be:

Provided that the charges payable by the Transmission System Users may also take into consideration factors such as voltage, distance, direction, quantum of flow and time of use, as may be specified by the Commission in its Order.

- (2) The transmission charge (inclusive of incentive) payable for AC System or part thereof for a calendar month shall be computed in accordance with the following equation:-

For TAFM<sub>≤</sub>98%

$AFC \times (NDM / NDY) \times (TAFM / 98\%)$

For TAFM:  $98\% < TAFM \leq 98.5\%$

$AFC \times (NDM / NDY) \times (1)$

For TAFM:  $98.5\% < TAFM \leq 99.75\%$

$AFC \times (NDM / NDY) \times (TAFM/98.5\%)$

For TAFM:  $\geq 99.75\%$

$AFC \times (NDM / NDY) \times (99.75\% / 98.5\%)$

Where,

AFC = Annual fixed charges specified for the year, in Rupees;

NATAF = Normative annual transmission availability factor, in per cent;

NDM = Number of days in the month;

NDY = Number of days in the year; and

TAFM = Transmission system availability factor for the month, in percent, computed in accordance with Appendix-II to these Regulations.

- (3) The Transmission Licensee shall raise the bill for the 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.
- (4) The transmission charges shall be calculated separately for part of the transmission system having different NATAF, and aggregated thereafter, according to their sharing by the long term transmission customers.

**46. Open Access Transactions.-** All the matters related to Open Access Transactions shall be dealt in accordance with Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Intra-State Open Access) Regulations, 2010 as applicable and as amended from time to time.

**47. Transmission losses.-** The energy losses in the transmission system of the Transmission Licensee, as determined by the State Load Despatch Centre and approved by the Commission, shall be borne by the Transmission System Users pro-rata to their usage of the intra-State transmission system:

Provided that the Commission may stipulate a trajectory for reduction of transmission losses in accordance with Regulation 9, as a part of Multi Year Tariff framework applicable to the Transmission Licensee.

**48. Compliance with the directions by Transmission Licensee.-** (1) Subject to the directions issued by the National Load Despatch Centre or the Regional Load Despatch Centre, the State Load Despatch Centre (SLDC) may, under Sub-section (2) of Section 32 and Sub-section (1) of Section 33, read with clause (b) of Section 40 of the Act, give such



directions as it may consider appropriate, for maintaining the availability of the transmission system and the Transmission Licensee shall duly comply with all such directions.

- (2) The Commission, on an application filed by the State Load Despatch Centre (SLDC) and after hearing the Transmission Licensee, if satisfied that the Transmission Licensee has persistently failed to maintain the availability of the transmission system, may issue such directions to the State Load Despatch Centre (SLDC) to take control of the operations of the transmission system of such Transmission Licensee, for such period and on such terms, as the Commission may decide.
- (3) The directions given under sub-regulation (1) shall be without prejudice to any action which may be taken against the Transmission Licensee under other provisions of the Act.

## **PART-V**

### **TARIFF FILING PROCEDURE**

**49. Multi-Year Filings for the Control Period.-** (1) The multiyear tariff filing shall be in such form and in such manner as may be laid down by the Commission by an order and also as per the provisions of the Conduct of Business Regulations.

- (2) The Transmission Licensee shall also submit the multiyear tariff filing in electronic format to the Commission.

**50. Beginning of the Control Period - Business Plan Filings.-** In the base year, prior to the filing of multi-year ARR cum Tariff petition, the Transmission Licensee shall file a business plan approved by its Board of Directors. The business plan shall be for the entire control period and shall, inter-alia, contain –

- (a) **Capital Investment Plan.-** This should be commensurate with load growth and quality improvement proposed in the business plan. The investment plan should also include corresponding capitalisation schedule and financing plan; The Commission shall approve the system augmentation/ expansion plan submitted by the Transmission Licensee, based on the load growth forecast/ generation evacuation requirement during the control period. The capital investment plan shall be in conformity with the plans made by the CEA/ CTU/ STU/ distribution licensee;
- (b) **Capital Structure.-** The appropriate capital structure of each scheme proposed and cost of financing (interest on debt) and return on equity, terms of the existing loan agreements, etc;
- (c) **Operation and Maintenance (O&M) Expenses.-** This shall include the costs estimated for the base year, the actual expenses incurred in the previous two years and the projected values for each year of the control period based on the proposed norms for O&M cost, including indexation and other appropriate mechanism;

- (d) **Depreciation.-** Based on the useful life of the asset and capitalisation schedules for each year of the control period;
- (e) **Performance Targets.-** A set of targets proposed for controllable items such as, availability of transmission system, transformer failure rate, and any other parameters for quality of supply for each year of the control period for the purpose of incentive / penalties. The targets shall be consistent with the capital investment plan proposed by the Transmission Licensee;
- (f) **Proposals for Non-tariff.-** Income with item-wise description and details;
- (g) Proposals in respect of income from Other Business; and
- (h) **Other Information.-** This shall include any other details considered appropriate by the Transmission Licensee for consideration during determination of tariff.

- 51. Tariff Filing.-** (1) The Transmission Licensee shall file an application for approval of transmission tariff for each year of the control period consistent with the business plan, not less than 120 days before the commencement of the first year of the control period or such other date as may be directed by the Commission.
- (2) The transmission tariff shall be determined for each year of the control period at the beginning of the control period. The licensee shall also indicate the transmission losses to provide for adjustment of losses in the system.
- (3) The filings for transmission tariff shall contain the following: -
- (a) the transmission system or network usage forecast for each year of the control period, consistent with the business plan;
  - (b) proposals for transmission tariff design for each year of the control period, including the losses to be charged and the procedure thereof;
  - (c) proposal for transmission tariff rate for the each year of the control period supported by adequate justification;
  - (d) proposal for reactive energy charges; and
  - (e) expected revenue from the licensed business, non-tariff income and income from other business and other matters considered appropriate by the Transmission Licensee.
- (4) The Transmission Licensee shall furnish to the Commission, such additional information, particulars and documents as the Commission may require from time to time after such filing of revenue calculations and tariff proposals.
- (5) The Transmission Licensee shall publish, for the information of the public, the contents of the application in an abridged form in such manner as the Commission may direct and shall host the complete copy of the filing on its website and shall also provide copies of the documents filed with the Commission to any person at a price not exceeding normal photocopying charges.

## **52. Mid-term Performance Review and Review at the End of the Control Period.-** (1) **Mid-term performance review-**

- (a) The Transmission Licensee shall make an application for mid-term Performance Review within 120 days before the commencement of the fourth year of the Control Period i.e. FY 2027-28;
  - (b) The scope of the mid-term Performance Review shall be a comparison of the actual performance with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges. The Transmission Licensee shall submit to the Commission all information together with audited account; statements, extracts of books of account; and such other details as the Commission may require to assess the reasons for and extent of any variation in performance from the approved forecast; and
  - (c) The mid-term review shall comprise of the following:-
    - (i) True-up of previous Control Period;
    - (ii) A comparison of the actual/ audited performance with the approved forecast for first two financial years of the Control Period, subject to the prudence check including pass-through of impact of uncontrollable factors;
    - (iii) Review of controllable parameters;
    - (iv) Review of ARR for the balance of the control period in case of any major change in uncontrollable and/ or controllable parameters; and
    - (v) Review of transmission charges on account of modification in ARR for the balance control period.
- (2) **Review at the end of control period** – The Transmission Licensee shall also make an application for Comprehensive Review towards the end of the fourth Control Period on availability of audited accounts. The comprehensive review shall be based as per the principles laid down under these Regulations for various parameters of ARR:
- Provided that the Transmission Licensee shall submit to the Commission information in such format as may be stipulated by the Commission, together with the audited accounts statements, extracts of books of accounts and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges.
- (3) Towards the end of the control period, the Commission shall review if the implementation of the principles laid down in these Regulations has achieved their intended objectives. While doing this, the Commission shall take into account, among other things, the industry structure, sector requirements, consumer and other stakeholder expectations and the licensee's requirements at that point of time. Depending on the requirements of the sector to meet the objects of the Act, the Commission may revise the principles for the next control period.

- (4) The end of the control period shall be the beginning of the next control period and the licensee shall follow the same procedure, unless required otherwise by the Commission. The Commission shall analyze the performance of the licensee with respect to the targets set out at the beginning of the control period and based on the actual performance, expected efficiency improvements and other factors prevalent, determine the initial values for the next control period.

**53. Disposal of Application.-** (1) The Commission will process the filings made by the Transmission Licensee in accordance with these Regulations and the Conduct of Business Regulations as amended from time to time.

- (2) Based on the Transmission Licensee's filings, objections/ suggestions from public and other stakeholders, the Commission may, within 120 days of the receipt of the application, complete in all respects, and after considering all suggestions and objections from public and other stakeholders -

- (a) issue, a tariff order with such modifications and/or such conditions, as may be deemed just and appropriate containing, inter-alia targets for controllable items and transmission tariffs for each year of the control period; or
- (b) reject the application for reasons to be recorded in writing if such application is not in accordance with the provisions of the Act and the Rules and Regulations made thereunder or the provisions of any other law for the time being in force.

**54. Publication.-** The Transmission Licensee shall publish the tariff approved by the Commission in the newspapers, having circulation in the area of supply, as the Commission may direct. The publication shall, besides such other things as the Commission may require, include a general description of the tariff changes.

## **PART-VI**

### **MISCELLANEOUS**

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

- (a) 100% of the gross proceeds on account of CDM to be retained by the project developer in the first year (12 months) after the date of commercial operation of the transmission system; and
- (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 users.

**56. Deviation from ceiling tariff.-** (1) The tariff determined in these Regulations shall be a ceiling tariff. The Transmission Licensee and the beneficiaries or the long-term customer, as the case may be, may mutually agree to charge a lower tariff.

- (2) The Transmission Licensee may opt to charge a lower tariff for a period not exceeding the validity of these Regulations on agreeing to deviation from operational parameters, reduction in operation and maintenance expenses, reduced return on equity and incentive specified in these Regulations.
- (3) If the Transmission Licensee opts to charge a lower tariff for a period not exceeding the validity of these Regulations on account of lower depreciation based on the requirement of repayment in such case the unrecovered depreciation on account of reduction of depreciation by the Transmission Licensee during useful life shall be allowed to be recovered after the useful life in these Regulations.
- (4) The deviation from the ceiling tariff specified by the Commission, shall come into effect from the date agreed to by the Transmission Licensee and the beneficiaries or the long-term customer, as the case may be.
- (5) The Transmission Licensee and the long term customer of transmission system shall be required to approach the Commission for charging lower tariff in accordance with sub-regulations (1) to (3). The details of the accounts and the tariff actually charged under sub-regulations (1) to (3) shall be submitted at the time of true up.

**57. Hedging of Foreign Exchange Rate Variation.-** (1) The Transmission Licensee may hedge foreign exchange exposure in respect of the interest and repayment of foreign currency loan taken for the transmission system, in part or in full at their discretion.

- (2) If the petitioner enters into hedging arrangement(s) based on its approved hedging policy, the petitioner shall communicate to the beneficiaries concerned, of entering into such arrangement(s) within thirty days.
- (3) Every Transmission Licensee shall recover the cost of hedging of foreign exchange rate variation corresponding to the normative foreign debt, in the relevant year on year-to-year basis as expense in the period in which it arises and extra rupee liability corresponding to such foreign exchange rate variation shall not be allowed against the hedged foreign debt.
- (4) To the extent the Transmission Licensee is not able to hedge the foreign exchange exposure, the extra rupee liability towards interest payment and loan repayment corresponding to the normative foreign currency loan in the relevant year shall be permissible; provided it is not attributable to the Transmission Licensee or its suppliers or contractors.

**58. Transitory provisions.-** Notwithstanding anything to the contrary contained in these Regulations –

- (a) the tariff order issued by the Commission for the control period ending on the 31<sup>st</sup> March, 2023 shall continue to operate; and
- (b) the proceedings (including review petition) for amendments, revocation, variation or alteration of the said tariff order shall continue to be filed and dealt with as if the repealed Regulations in respect of the said tariff determination continue to be in force, and the provisions of these Regulations shall not apply.

- 59. Issue of Orders and Practice Directions.-** (1) Subject to the provisions of the Act and these Regulations, the Commission may, from time to time, issue orders and practice directions, prescribe formats in regard to the implementation of these Regulations and procedure to be followed on various matters, which the Commission has been empowered by these Regulations to direct, and matters incidental or ancillary thereto.
- (2) Notwithstanding anything contained in these Regulations, the Commission shall have the authority, either Suo-motu or on a petition filed by any interested or affected person, to determine the tariff of any applicant.
- 60. Power to remove difficulties.-** If any difficulty arises in giving effect to any of the provisions of these Regulations, the Commission may, by a general or special order, not being inconsistent with the provisions of these Regulations or the Act, do or undertake to do things or direct the Transmission Licensee to do or undertake such things which appear to be necessary or expedient for the purpose of removing the difficulties.
- 61. Power to relax.-** The Commission may, in public interest and for reasons to be recorded in writing, relax any of the provision of these Regulations.
- 62. Interpretation.-** All issues arising in relation to the interpretation of these Regulations shall be determined by the Commission and the decision of the Commission on such issues shall be final.
- 63. Saving of Inherent power of the Commission.-** Nothing contained in these Regulations shall limit or otherwise affect the inherent powers of the Commission from adopting a procedure, which is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of the matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient to depart from the procedure specified in these Regulations.
- 64. Enquiry and Investigation.-** All enquiries, investigations and adjudications under these Regulations shall be done by the Commission in accordance with the provisions of the Conduct of Business Regulations as amended from time to time.
- 65. Repeal and savings.-** (1) The Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 are hereby repealed.
- (2) Notwithstanding such repeal-
- (a) anything done or any action taken or purported to have been done or taken under the repealed Regulations shall, in so far as it is not inconsistent with the provisions of these Regulations, be deemed to have been done or taken under the corresponding provisions of these Regulations;

- (b) the provisions concerning the tariff order made for the control period ending on the 31<sup>st</sup> March, 2024 and the provisions for conduct of the proceedings (including review petitions) for its revocations, variation or alternation, as stood before such repeal, shall continue to be in force.

**By Order of the Commission,**

**Sd/-**

**(Chhavi Nanta), HPAS**

**Secretary**

## Appendix-I

### Depreciation Schedule

Sr. No.	Asset Particulars	Depreciation Rate (Salvage Value=10%) SLM
<b>A</b>	<b>Land under full ownership</b>	0.00%
<b>B</b>	<b>Land under lease</b>	
(a)	for investment in the land	3.34%
(b)	For cost of clearing the site	3.34%
<b>C.</b>	<b>Building &amp; Civil Engineering works</b>	
(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>D.</b>	<b>Transformers, Kiosk, sub-station equipment &amp; other fixed apparatus (including plant)</b>	
(i)	Transformers including foundations having rating of 100 KVA and over	5.28%
(ii)	Others	5.28%
<b>E.</b>	<b>Switchgear including cable connections</b>	5.28%
<b>F.</b>	<b>Lightning arrestor</b>	
(i)	Station type	5.28%
(ii)	Pole type	5.28%
(iii)	Synchronous condenser	5.28%
<b>G.</b>	<b>Batteries</b>	5.28%
<b>H.</b>	<b>Underground cable and equipment</b>	
(i)	Underground cable including joint boxes and disconnected boxes	5.28%
(ii)	Cable duct system	5.28%
<b>I.</b>	<b>Overhead lines including cable support</b>	
(i)	Lines on fabricated steel operating at terminal voltages higher than 66 KV	5.28%
(ii)	Lines on steel supports operating at terminal voltages higher than 13.2 KV but not exceeding 66 KV	5.28%
(iii)	Lines on steel on reinforced concrete support	5.28%



(iv)	Lines on treated wood support	5.28%
<b>J.</b>	<b>Meters</b>	5.28%
<b>K.</b>	<b>Self propelled vehicles</b>	9.50%
<b>L.</b>	<b>Air Conditioning Plants</b>	
(i)	Static	5.28%
(ii)	Portable	9.50%
<b>M.</b>	<b>Office furniture, equipment and fixtures</b>	
(i)	Office furniture and furnishing	6.33%
(ii)	Office equipment	6.33%
(iii)	Internal wiring including fittings and apparatus	6.33%
(iv)	Street Light fittings	5.28%
<b>N.</b>	<b>Apparatus let on hire</b>	
(i)	Other than motors	9.50%
(ii)	Motors	6.33%
<b>O.</b>	<b>Communication equipment</b>	
(i)	Radio and high frequency carrier system	6.33%
(ii)	Telephone lines and telephones	6.33%
(iii)	Fibre Optic	6.33%
<b>P.</b>	<b>I. T Equipment including software, SCADA System</b>	15.00%
<b>Q.</b>	<b>Any other assets not covered above</b>	5.28%

**Note:** Where life of the particular asset is less than useful life of the project, the useful life of such particular asset shall be considered as per the provisions of the Companies Act, 2013 and subsequent amendment thereto.

## Appendix II

### Procedure for Calculation of Transmission System Availability Factor for a Month

1. Transmission system availability for a calendar month shall be computed by the respective Transmission Licensee, and certified by the HPSLDC, separately for each AC and HVDC transmission system. For the purpose of calculation of Transmission System Availability-
  - (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 alongwith associated equipment at both ends shall be considered as one element; and
  - (vi) HVDC back-to-back Station: Each block of HVDC back-to-back Station shall be considered as one element. If associated AC line (necessary for transfer of inter-regional power through HVDC back-to-back Station) is not available, the HVDC back-to-back Station block shall also be considered as unavailable.
2. The Availability of AC and HVDC portion of Transmission system shall be computed as under:-

$$\% \text{ Availability for AC system} = \frac{o * AV_o + p * AV_p + q * AV_q + r * AV_r}{o + p + q + r} \times 100$$

$$\% \text{ Availability for HVDC system} = \frac{s * AV_s + t * AV_t}{s + t} \times 100$$

Where

- |                 |   |  |
|-----------------|---|--|
| o               | = | Total number of AC lines;  |
| AV <sub>o</sub> | = | Availability of o number of AC lines;                              |
| p               | = | Total number of bus reactors/switchable line reactors;             |
| AV <sub>p</sub> | = | Availability of p number of bus reactors/switchable line reactors; |
| q               | = | Total number of ICTs;  |
| AV <sub>q</sub> | = | Availability of q number of ICTs;                                  |
| r               | = | Total number of SVCs;  |
| AV <sub>r</sub> | = | Availability of r number of SVCs;                                  |

s	=	Total number of HVDC poles;
AVs	=	Availability of s number of HVDC poles;
t	=	Total number of HVDC back-to-back Station blocks;
AVt	=	Availability of t number of HVDC back-to-back Station blocks.

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

(a) For each circuit of AC line –

(i) Surge Impedance Loading (SIL) for Uncompensated line multiplied by ckt-km;

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

(ii) For compensated AC line, SIL shall be as certified by HPSLDC considering the compensation on the line; and

(iii) 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 multiplied by 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; and

(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 element shall be computed 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-IV**.

5. The transmission elements under outage due to following reasons shall be deemed to be available:-

(i) Shut down availed for maintenance or construction of elements of another transmission scheme. If the other transmission scheme belongs to the Transmission Licensee, the HPSLDC may restrict the deemed availability period to that considered reasonable for the work involved; and

(ii) Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the directions of HPSLDC.

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 HPSLDC 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 and any additional time taken by the Transmission Licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the Transmission Licensee. Circuits restored through ERS (Emergency Restoration System) shall be considered as available; and
  - (ii) Outage caused by grid incident/disturbance not attributable to the Transmission Licensee, e.g., faults in sub-station or bays owned by other agency causing outage of the Transmission Licensee's elements, and tripping of lines, ICTs, HVDC, etc. due to grid disturbance. However, if the element is not restored on receipt of direction from RLDC while normalizing the system following grid incident/disturbance within reasonable time, the element will be considered not available for the period of outage after issuance of RLDC's direction for restoration.

**Appendix-III**  
**Surge Impedance Loading (SIL) of AC Lines**

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

## Appendix-IV

### FORMULAE FOR CALCULATION OF AVAILABILITY OF EACH CATEGORY OF TRANSMISSION ELEMENTS

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

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

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

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

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

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

Where  $W_i$  = Weightage factor for  $i^{\text{th}}$  transmission line  
 $W_j$  = Weightage factor for  $j^{\text{th}}$  HVDC pole

$W_k$	=	Weightage factor for $k^{\text{th}}$ ICT
$W_{lI} \& W_{lC}$	=	Weightage factors for inductive & capacitive operation of $l^{\text{th}}$ SVC
$W_m$	=	Weightage factor for $m^{\text{th}}$ bus reactor
$W_n$	=	Weightage factor for $n^{\text{th}}$ HVDC back to back block.

$T_i, T_j, T_k, T_{lI}, T_{lC}, =$	The total hours of $i^{\text{th}}$ AC line, $j^{\text{th}}$ HVDC pole, $k^{\text{th}}$ ICT, $l^{\text{th}}$ SVC
$T_m \& T_n$	(Inductive Operation), $l^{\text{th}}$ SVC (Capacitive Operation), $m^{\text{th}}$ Switched Bus Reactor & $n^{\text{th}}$ HVDC back-to-back block during the period under consideration (excluding time period for outages not attributable to Transmission Licensee for reasons given in Para 6 of the procedure)
$T_{NAi}, T_{NAj}, T_{NAk} =$ $T_{NAI}, T_{NAm},$	The non-availability hours (excluding the time period for $T_{NAI}$ , outages not attributable to transmission Licensee taken as $T_{NAm}$ , deemed availability as per Para 5 of the procedure) for $i^{\text{th}}$ AC line, $j^{\text{th}}$ HVDC pole, $k^{\text{th}}$ ICT, $l^{\text{th}}$ SVC (Inductive Operation), $l^{\text{th}}$ SVC (Capacitive Operation), $m^{\text{th}}$ Switched Bus Reactor and $n^{\text{th}}$ HVDC back-to-back block.