

- (iv) any additional works / services which have become necessary for efficient and successful operation of the project, but not included in the original project cost.
- (3) Any expenditure incurred on minor items / assets bought after the cut off date like tools and tackles, personal computers, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, TV, washing machine, heat convectors, mattresses, carpets etc. shall not be considered for additional capitalisation for determination of tariff with effect from notified date of the tariff regulations by the Commission as per Regulation 1.2

**Note:** *The list of items is illustrative but not exhaustive.*

- (4) Impact of additional Capitalisation in tariff revision may be considered by the Commission twice in a tariff period including revision of tariff after the cut off date.

**Note:**

- (1) *Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt equity ratio specified in these Regulations.*
- (2) *Any expenditure on replacement of old asset shall be considered after writing off the entire value of the original asset from the original capital cost.*
- (3) *Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced on normative debt – equity ratio specified in these Regulations.*
- (4) *Any expenditure admitted by the Commission for determination of tariff on renovation and modernisation or life extension shall be serviced on normative debt –equity ratio specified in these Regulations after writing off the original amount of the replaced asset from the original capital cost.*

## **PART-V**

### **FINANCIAL PRINCIPLES**

#### **20. ARR for Transmission Business**

##### **20.1 Financial Prudence-**

The Transmission Licensee or SLDC ,as the case may be, shall manage its finances in an optimum and prudent manner

Provided that the Commission may disallow a part of the Aggregate Revenue Requirement, as an efficiency measure, if it finds the exercise of such prudence to have been deficient

Provided also that, in case its payment obligations to other entities are not regularly met, the Transmission Licensee or SLDC, as the case may be, shall provide justification for such shortfall with reference to its cash flow statement.

20.2 The financial prudence with respect to capital expenditure shall be assessed in terms of the following parameters:—

- (a) mechanism put in place for monitoring the physical progress of projects with respect to their original schedule;
- (b) optimum drawal of loans in accordance with the physical progress of the capital expenditure schemes, and efficient utilisation of such loans;
- (c) in case the actual capital expenditure or capitalisation exceeds 10% of that approved by the Commission, the Transmission Licensee or SLDC, as the case may be, shall submit detailed justification for such excess along with its Petition for True-up ;
- (d) in case any scheme has not been commenced during the year despite the Commission's approval, detailed justification shall be submitted along with the Petition for True-up.

20.3 The Aggregate Revenue Requirement for the Transmission Licensee or SLDC business, as the case may be, for each year of the Control Period shall contain but not limited to the following items:

- (a) Operation and Maintenance expenses;
- (b) Return on Equity;
- (c) Depreciation
- (d) Interest and finance charges on loan capital
- (e) Interest on working capital
- (f) Contingency Reserve;
- (g) Bad debts, if any
- (h) Non-Tariff Income

- (i) Income from Other Business.
- (j) Revenue from short-term transmission charges

**21. Operation and Maintenance Expenses**

- (a) The Commission shall stipulate a separate trajectory of norms for each of the components of O&M expenses viz., Employee cost, Repair and Maintenance (R&M) expense and Administrative and General (A&G) expense.

Provided that such norms may be specified for a specific Transmission Licensee or a class of Transmission Licensees.

- (b) Norms shall be defined in terms of number of personnel per ckt/km (for different categories of transmission lines for e.g. 400 KV, 220 KV, 132 KV etc. Lines) and number of personal per bay (for different categories of bay for e.g. 400 KV, 220 KV, 132 KV etc. Bays) along with annual expenses per personnel for Employee expenses; combination of A&G expense per personnel and A&G expense per substation 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 and arrears paid due to pay commission recommendation shall be excluded from the norms in the trajectory.
- (d) The unforeseen expenses beyond the control of the Transmission Licensee such as pay revision, shall be excluded from the norms in the trajectory.
- (e) The One-time expenses and the expenses beyond the control of the Transmission Licensee shall be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.
- (f) The norms in the trajectory shall be specified over the control period with due consideration to productivity improvements.
- (g) The norms shall be determined at constant prices of base year and escalation on account of inflation shall be over and above the baseline.

Provided that for the purpose of escalation based on Wholesale Price Index(WPI<sub>n</sub>) and Consumer Price Index(CPI<sub>n</sub>), WPI<sub>n</sub> is to be computed based on the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past three financial years

(including the year of Truing-up) as per the Office of Economic Advisor Ministry of Commerce & Industry Government of India and CPI<sub>n</sub> is to be computed based on the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the respective past three financial years (including the year of Truing-up) as per the Labour Bureau Government of India, at the time of filing of Petition.

- (h) The Transmission Licensee specific trajectory of norms shall be identified by the Commission on the basis of absolute and relative analysis.
- (i) In absolute analysis, Transmission Licensee's audited accounts of operations for last three years, expenses claimed for control period, historically approved cost, and prudence check shall be used by the Commission to estimate values of norms.
- (j) In relative analysis, performance parameters of other Transmission Licensees within the same state or in other states, shall be considered by the Commission to estimate norms.

Provided that other Transmission Licensees so chosen shall have similar profile as that of the Transmission Licensee under consideration in terms of consumer mix, type of license area (city, state, etc.) type of substation, transmission networks, etc.

- (k) Suitable average of outcomes of absolute and relative analysis shall be taken by the Commission to fix the norms over the control period for the Transmission Licensee.

### **21.1 Employee Cost**

Employee cost shall be computed as per the approved norm escalated by consumer price index (CPI), adjusted by provisions for expenses beyond the control of the Transmission Licensee and one time expected expenses, such as recovery/adjustment of terminal benefits, implications of pay commission, arrears and Interim Relief, governed by the following formula:

$$EMP_n = (EMP_b * CPI \text{ inflation}) + \text{Provision}$$

Where:

EMP<sub>n</sub> : Employee expense for the year n

EMPb : Employee expense as per the norm

CPI inflation : is the average increase in the Consumer Price Index (CPI) for immediately preceding three years

Provision : Provision for expenses beyond control of the Transmission Licensee and expected one-time expenses as specified above.

Till the norms are specified by the Commission the employee cost shall be determined on the basis of actual historical cost.

### **21.2 Repairs and Maintenance (R&M) Expense**

Repairs and Maintenance expense shall be calculated as percentage (as per the norm determined) of Opening Gross Fixed Assets excluding land cost for the year governed by following formula:

$$R\&M_n = K_b * GFAn$$

Where:

R&M<sub>n</sub> : Repairs & Maintenance expense for nth year

GFAn : Opening Gross Fixed Assets for nth year

K<sub>b</sub> : Percentage point as per the norm

### **21.3 Administrative and General (A&G) Expense**

A&G expense shall be computed as per the norm escalated by wholesale price index (WPI) and Consumer Price Index (CPI) in the ratio 60:40 and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Transmission Licensee and validated by the Commission) or other expected one-time expenses, and shall be governed by following formula:

$$A\&G_n = (A\&G_b * WPI \text{ inflation}) + \text{Provision}$$

Where:

A&G<sub>n</sub>: A&G expense for the year n

A&G<sub>b</sub>: A&G expense as per the norm

WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years

Provision: Cost for initiatives or other one-time expenses as proposed by the Transmission Licensee and validated by the Commission. Till the norms of A&G expenses is specified by the Commission, the actual historical cost will be considered for determination of A&G expenses.

## **22. Return on Equity**

- (a) Return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower:

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

Provided further that the premium if any raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the Scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the transmission system, and are within the ceiling of 30% of capital cost approved by the Commission.

- (b) The return on the equity invested shall be allowed from the date of start of commercial operation and after put to use:
- (c) Return on equity shall be computed at the rate of 15.5% for the project which is commissioned w.e.f. 01.04.2015 and further incentive equivalent to 0.5% will be allowed in the form of RoE, if the project is completed within schedule as per the Annexure A or original schedule period as the case may be. However, Return on Equity for the project commissioned prior to 01.04.2015 shall be allowed at the rate of 14%.

### **23. Depreciation**

- (i) Depreciation shall be calculated for each year of the control period on the original cost of the fixed assets of the corresponding year. No advance shall be granted against depreciation.
- (ii) Depreciation shall not be allowed on assets funded by capital subsidies, beneficiary contributions or grants.
- (iii) Depreciation shall be calculated annually on the basis of assets capitalised and put to use based on the straight line method over the useful life of the asset and at the rate not exceeding the rate specified by the Central Electricity Regulatory Commission from time to time or as provided in Appendix-III of these Regulations.

The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset. The Transmission Licensee or SLDC, as the case may be, shall submit separate detail of fully depreciated asset along with year of commissioning and year of attaining ninety percent depreciation with the tariff petition.

Provided that freehold 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.

Provided further that the cost of lease hold land shall be amortised evenly within the leased period.

- (iv) The original capital cost of the asset shall include Additional Capitalisation on account of Foreign Exchange Rate Variation as allowed by the Government / Bihar Electricity Regulatory Commission.
- (v) Depreciation shall be chargeable from the first year of operation of the asset. For part of the year, depreciation shall be charged on pro rata basis.
- (vi) A provision of replacement of assets shall be made in the capital investment plan.

#### **24. Interest and finance charges on loan capital**

- (a) The Transmission Licensee or SLDC, as the case may be, shall provide detailed loan-wise, project wise and utilization-wise details of all the loans.
- (b) 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:

- (c) Actual loan or normative loan, if any, shall be referred as gross normative loan in this Regulation.
- (d) The normative loan outstanding as of 1<sup>st</sup> April of control period shall be computed by deducting the cumulative repayment as approved by the Commission (basis as mentioned below) up to 31<sup>st</sup> March of current period (a year before control period) from the gross normative loan.

- (e) The repayment for the control period shall be deemed to be equal to the depreciation allowed for the year.
- (f) Notwithstanding any moratorium period availed by the Transmission Licensee or SLDC, as the case may be, the repayment of the loan shall be considered from the first year of the control period as per annual depreciation allowed.
- (g) 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 if no actual loan is outstanding but normative loan is still outstanding and the last available weighted average rate of interest is also not available, rate of interest equal to the State Bank (one-year tenor) Marginal Cost of Funds-based Lending Rate ('MCLR') 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 also 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:

- (h) The Transmission Licensee or SLDC, as the case may be, shall make every effort to refinance the loan as long as it results in net benefit to the beneficiaries.

Provided that the cost associated with such refinancing shall be eligible to be passed through in tariffs 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 or SLDC and the beneficiaries.

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



- (i) The Transmission Licensee shall enable tracking of the loans converted into grants under schemes like BRGF, PSDF, APDRP, R-APDRP, RGGVY, DDUGVY, RSVP, etc or any other loan from the Central or State Government by providing information and data regularly to the Commission, for enabling the Commission to recover from Transmission Licensee or SLDC, as the case may be, the amount of interest on loans which have been passed on to the beneficiaries in the earlier years and have been converted into grant subsequently so that the recovered amount is passed on to the beneficiaries.
- (j) Addition to loan during the year for interest purpose will be restricted to the quantum of assets capitalized and put to use.
- (k) The excess interest during construction on account of time and/or cost overrun as compared to the approved completion schedule and capital cost or on account of excess drawal of the debt funds disproportionate to the actual requirement based on Scheme completion status, shall be allowed or disallowed partly or fully on a case to case basis, after prudence check by the Commission. The transmission licensee shall endeavour to adhere the time schedule for various transmission system in accordance with Annexure-A appended for these regulations.

Provided that where the excess interest during construction is on account of delay attributable to an agency or contractor or supplier engaged by the Transmission Licensee, any liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost:

Provided further that the extent of liquidated damages to be considered shall depend on the amount of excess interest during construction that has been allowed by the Commission.

- (l) The above interest computation shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by Consumer Contribution, Deposit Works, Grants or Capital Subsidy.

**25. Interest during Construction (IDC), Incidental Expenditure during Construction (IEDC):**

**(A) Interest during Construction (IDC)**

- (i) Interest during construction shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds upto Scheduled Date of Commercial operation (SCOD).
- (ii) In case of additional costs on account of IDC due to delay in achieving the SCOD, the SLDC or the transmission licensee as the case may be, shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds.  
Provided that if the delay is not attributable to the SLDC or the transmission licensee as the case may be, and is due to uncontrollable factors as specified in Regulation 8 of these regulations, IDC may be allowed after due prudence check.  
Provided further that only IDC on actual loan may be allowed beyond the SCOD to the extent, the delay is found beyond the control of SLDC or the transmission licensee, as the case may be, after due prudence and taking into account prudent phasing of funds.

**(B) Incidental Expenditure during Construction (IEDC)**

- (i) Incidental expenditure during construction shall be computed from the zero date and after taking into account pre-operative expenses up to Scheduled Date of Commercial operation (SCOD).  
Provided that any revenue earned during construction period up to SCOD on account of interest on deposits or advances, or any other receipts may be taken into account for reduction in incidental expenditure during construction.
- (ii) In case of additional costs on account of IEDC due to delay in achieving the SCOD, the transmission licensee or SLDC as the case may be, shall be required to furnish detailed justification with supporting documents for such delay including the details of incidental expenditure during the period of delay and liquidated damages recovered or recoverable corresponding to the delay.  
Provided that if the delay is not attributable to the transmission licensee or SLDC as the case may be, and is due to uncontrollable

factors as specified in Regulation 8, IEDC may be allowed after due prudence check.

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

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

## **26. Interest on working capital**

- (a) The Transmission Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

- (i) Receivables equivalent to two (2) month of transmission charges calculated on target availability level.
- (ii) O&M Expenses of one (01) month.
- (iii) Maintenance spares @ 15% of O&M expenses for one month.

### **Less:**

- (iv) Depreciation, return on equity and contribution to contingency reserves equivalent to two months.
  - (v) Amount of security deposits from Transmission System users, if any, held during the year except the security deposits held in the form of Bank Guarantee from Transmission System Users.
- (b) Interest on working capital shall be on normative basis and rate of interest shall be equal to the State Bank (one-year tenor) Marginal Cost of Funds-based Lending Rate ('MCLR') as of the date on which petition for determination of tariff is filed plus 150 basis points. The rate of interest for the purpose of Truing-up shall be the weighted average MCLR of the concern Financial Year plus 150 basis points.
  - (c) Interest shall be allowed on the amount held as security deposit from Transmission System Users at the Bank Rate (RBI Base Rate) as at the date on which the application for determination of tariff is filed. The

interest allowed shall be subject to true up at weighted average Bank Rate of the concern Financial Year.

- (d) If the State Government is providing resource gap grant and/or subsidy, the working capital shall be reduced by two months equivalent of that amount.

## **27. Tax on Return on Equity**

- 1) The base rate of return on equity as allowed by the Commission under Regulation 22 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned transmission licensee or SLDC, as the case may be. The actual tax on income from other business including deferred tax liability (i.e. income on business other than business of transmission or SLDC, as the case may be) shall not be considered for the calculation of effective tax rate.

- 2) Rate of return on equity shall be rounded off to two decimal places and shall be computed as per the formula given below:

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

Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-SLDC or non-transmission business, as the case may be, and the corresponding tax thereon. In case of licensee/SLDC paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.

### **Illustration:-**

- (i) In case of the licensee paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess:

$$\text{Rate of return on equity} = 15.50 / (1 - 0.2096) = 19.61\%$$

- (ii) In case of licensee paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from the licensee business for FY 2017-18 is Rs 1000 crore.

(b) Estimated Advance Tax for the year on above is Rs 240 crore.

(c) Effective Tax Rate for the year 2017-18 = Rs 240 Crore/Rs 1000 Crore = 24%

(d) Rate of return on equity =  $15.50 / (1 - 0.24) = 20.39\%$

(3) The Licensee or SLDC, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2022-23 to 2026-27 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the Licensee or SLDC as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries on year to year basis.

## **28. Contribution to Contingency Reserve**

(a) If the Transmission Licensee or SLDC, as the case may be, has made an appropriation to the Contingency Reserve, a sum not more than 0.5 per cent of the original cost of fixed assets at the beginning of the year shall be allowed annually towards such appropriation in the calculation of ARR.

Provided that where the amount of such Contingency Reserves exceeds five (5) per cent of the original cost of fixed assets, no further contribution shall be allowed.

Provided further that such contribution shall be invested in securities authorised under the Indian Trusts Act, 1882 within a period of six months of the close of the Year.

(b) The Contingency Reserve shall not be drawn upon during the term of the license except to meet such charges as may be approved by the Commission, such as following:

(i) Expenses or loss of profits arising out of accidents, strikes or circumstances which the management could not have prevented;