

BEFORE
MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION
SHILLONG

PETITION
FOR
MYT OF TRANSMISSION
BUSINESS FY 2018-19 TO FY 2020-21&
DETERMINATION OF TARIFF FOR FY 2018-19

FILED BY



MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED
LumJingshai, Short Round Road, Shillong - 793 001

BEFORE THE HONORABLE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

At its office at Lower Lachumiere, Shillong – 793001

File/Petition No.: _____

IN THE MATTER OF
MYT OF TRANSMISSION BUSINESS FY 2018-19 TO FY 2020-21 & DETERMINATION OF TARIFF FOR FY 2018-19 UNDER THE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION (MULTI YEAR TARIFF) REGULATIONS, 2014 AND UNDER SECTIONS 62 & 64 READ WITH SECTION 86 OF THE ELECTRICITY ACT 2003.

AND IN THE MATTER OF

MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED, LUMJINGSHAI, SHORT ROUND ROAD, SHILLONG – 793001, MEGHALAYA

PETITIONER

The Petitioner respectfully submits as under:

1. In exercising its powers conferred under the section 131 and 133 of the Electricity Act 2003, the State Government of Meghalaya notified “The Meghalaya Power Sector Reforms Transfer Scheme 2010” on 31st March 2010 leading to restructuring and unbundling of erstwhile Meghalaya State Electricity Board (MeSEB) into four entities namely
 - a. **Meghalaya Energy Corporation Limited (MeECL)**: the Holding Company;
 - b. **Meghalaya Power Distribution Corporation Limited (MePDCL)**: the Distribution Utility;
 - c. **Meghalaya Power Generation Corporation Limited (MePGCL)**: the Generation Utility;
 - d. **Meghalaya Power Transmission Corporation Limited (MePTCL)**: the Transmission Utility.
2. However, the holding company - MeECL carried out the functions of distribution, generation and transmission utilities from 1st April 2010 onwards, even after restructuring. Therefore, through notification dated 31st March 2012, State Government notified an amendment to The Power Sector Reforms Transfer Scheme leading to effective unbundling of MeECL into MeECL (Holding Company), MePDCL (Distribution Utility), MePGCL (Generation utility) and MePTCL (Transmission Utility) from 1st April 2012.
3. On 23rd December 2013, the Government of Meghalaya has issued the latest transfer scheme notification thereby notifying the Assets and Liabilities as on 1st April 2010 to be vested in MeECL. Subsequently, the Government of Meghalaya has notified the 4thAmendment to the Notified Transfer Scheme dated 31st March 2010 on 29th April 2015, wherein the opening balances of all the four entities namely, MePGCL, MePTCL, MePDCL and MeECL as on 1st April 2012 have been notified.
4. MePTCL has begun segregated commercial operations as an independent entity from 1st April 2013.

5. The audited financial statements of MePTCL are inclusive of SLDC and the petitioner has submitted the actual consolidated expenses of MePTCL inclusive of transmission business and SLDC business for projecting ARR of the MYT control period.
6. The expenses of the holding company MeECL, is apportioned equally among the generation, transmission and distribution utilities, since the MeECL is an administrative setup for all the three subsidiaries and undertakes common corporate functions of the three companies.
7. The **Meghalaya State Electricity Regulatory Commission** (hereinafter referred to as “MSERC” or “the Hon’ble Commission”) is an independent statutory body constituted under the provisions of Part – X (Sections 76 to 109) of the Electricity Act (EA), 2003. The Hon’ble Commission is vested with the authority of regulating the power sector in the State inter alia including determination of tariff for electricity consumers.
8. The audited account statements of MePTCL for FY 2015-16 and provisional accounts of FY 2016-17 are finalized and attached as Annexure B & D respectively. However the audited accounts of MeECL are currently not available for FY 2015-16. Hence, the truing up exercise for FY 2015-16 for transmission business will be done once the audited statements of MeECL are ready. The licensee prays for leave of submission of audited accounts of MeECL for FY 2015-16 as well as the audited accounts of FY 2016-17 for the purpose of tariff petition of FY 2018-19.
9. The petition also includes the determination of ARR for the second Control Period (FY 2018-19 to FY 2020-21) which has been prepared in accordance with The Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2014 (hereinafter referred to as “MYT Regulations, 2014”) and the tariff determination for transmission business for FY 2018-19.
10. Based on the Audited Statement of Account for FY 2015-16 and Provisional Statement of Account for FY 2016-17 and the Business plan for Transmission Business for FY 2018-21 approved by the Commission, estimates for the FY 2017-18 and projections for FY 2018-19 to FY2020-21 are prepared and ARR for FY 2018-19 to FY2020-21 is proposed.
11. Due to unavailability of segregated accounts of SLDC, separate petition has not been filed for SLDC and the present transmission tariff petition is inclusive of the SLDC elements.
12. The Board of Directors of MePTCL have accorded approval for filing of this petition and authorized the undersigned to file the petition accordingly. The copy of the Board’s resolution is hereby enclosed as Annexure-C.
13. The applicant, therefore, humbly prays to the Hon’ble Commission to pass appropriate orders on the following:
 - a. Approval of Net ARR for FY 2018-19, FY 2019-20 and FY 2020-21 as proposed in this Petition.
 - b. Approval of tariff for FY 2018-19 as proposed in this petition
 - c. To pass such orders, as Hon’ble Commission may deem fit and proper and necessary in view of the facts and circumstances of the case.
 - d. To condone any inadvertent omissions, errors & shortcomings and permit the applicant to add/change/modify/alter this filing and make further submissions as required.

(SASHI BHUSHAN NATH)
SE (ELECT-II)
O/O DIRECTOR (TRANSMISSION)
MEGHALAYA POWER TRANSMISSION CORPORATION LIMITED

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1. Introduction

1.1 Provisions for MYT

The Hon'ble Commission has notified the MYT Regulations, 2014 on 15th September, 2014. As per Regulation 3, 4 & 7 of the MYT Regulations, 2014, the Hon'ble Commission will determine ARR & Tariff for the Transmission Licensee under Multi Year Tariff framework from 1st April, 2015. The relevant regulations are reproduced below for reference.

“3 Scope of Regulation

3.1 The Commission shall determine tariff within the Multi-Year Tariff framework, for all matters for which the Commission has jurisdiction under the Act, including in the following cases:

- i. Supply of electricity by a Generating Company to a Distribution Licensee:
Provided that where the Commission believes that a shortage of supply of electricity exists, it may fix the minimum and maximum ceiling of tariff for sale or purchase of electricity in pursuance of an agreement, entered into between a generating Company and a Distribution Licensee or between distribution licensees, for a period not exceeding one year to ensure reasonable prices of electricity;*
- ii. Intra-State transmission of electricity and SLDC charges;*
- iii. Intra-State Wheeling of electricity;*
- iv. Retail supply of electricity:
Provided that in case of distribution of electricity in the same area by two or more Distribution Licensees, the Commission may, for promoting competition among Distribution Licensees, fix only maximum ceiling of tariff for retail sale of electricity:
Provided further that where the Commission has allowed open access to certain consumers under sub-section (2) of Section 42 of the Act, the Commission shall determine the wheeling charges, cross subsidy surcharge, additional surcharges and other open access related charges in accordance with these regulations and MSERC (Terms and Conditions of Open Access) Regulations 2012 as applicable and as amended through Orders issued by the Commission from time to time*

.....

4 Multi-Year Tariff framework

4.1 The Commission shall determine the tariff for matters covered under clauses (i), (ii), (iii) and (iv) of regulation 3 above under Multi- Year Tariff framework with effect from April 01, 2015.

Provided that the Commission may, either on suo-moto basis or upon application made to it by an applicant, exempt the determination of tariff of a Generating Company or Transmission Licensee or Distribution Licensee under the Multi-Year Tariff framework for such period as may be contained in the Order granting such an exemption.

4.2 *The Multi-Year Tariff framework shall be based on the following elements, for determination of Aggregate Revenue Requirement and expected revenue from tariff and charges for Generating Company, Transmission Licensee, and Distribution Business:*

a) *A detailed Business Plan based on the principles specified in these Regulations, for each year of the Control Period, shall be submitted by the applicant for the Commission's approval:*

.....

7. Applicability

7.1 *The Multi-Year Tariff framework shall apply to applications made for determination of tariff for a Generating Company, Transmission Licensee, and Distribution Licensee for Distribution Business.”*

The Regulation 6 of the MYT Regulations, 2014, provides the guidelines for filing of Multi Year Tariff. The relevant sections are reproduced below:

“6 Accounting statement and filing under MYT

6.1 *The filing under MYT by the Generating Company, Transmission Licensee, and Distribution Licensee, shall be done on or before 30th November each year to the Commission and in compliance with the principles for determination of ARR as specified in these Regulations, in such formats and at such time as may be prescribed by the Commission from time to time. The filing of truing up of petitions prior to MYT period shall be done in the manner and at such time as may be decided by the Commission.*

6.2 *The filing of MYT Petition for the Control Period under these Regulations shall be as under:*

a) *MYT Petition shall comprise of:*

- i. *Multi-year Aggregate Revenue Requirement for the entire Control Period with year-wise details;*
- ii. *Revenue from the sale of power at existing tariffs and charges and projected revenue gap, for the first year of the Control Period under these Regulations.*
- iii. *Application for determination of tariff for first year of the Control Period.*

.....

There was an amendment to Regulation 1.4 of MSERC Regulation 2014 as per the order from Commission dated 28Aug 2017 which states that the existing regulations which was applicable for 1st Control period of MYT FY 2015-16 to FY 2017-18 would also be applicable for 2nd control period of MYT FY 2018-19 to FY 2020-21 for the power utilities of Meghalaya

1.2 Submission before the Hon’ble Commission

MePTCL hereby submits the petition under section 61, 62 (1) (a) of the Electricity Act, 2003, MSERC (Multi Year Tariff) Regulations, 2014 for approval of determination of

ARR under MYT for the second Control Period (FY 2018-19 to FY 2020-21) and determination of transmission tariff in FY 2018-19.

2. Company Profile and Performance Overview

2.1 Company Profile

The Company is a Transmission Licensee within the meaning of Section 2 (73) of Electricity Act 2003. Further, Section 42 and 43 of the Electricity Act 2003 prescribes the following major duties of the Transmission Licensee:

- To undertake transmission of electricity through intra- State transmission system.
- To build, maintain and operate an efficient, coordinated and economical intra-State transmission system.
- To comply with the directions of the Regional Load Despatch Centre and the State Load Despatch Centre.
- To comply with such technical standards, of operation and maintenance of transmission lines, in accordance with the Grid Standards, as may be specified by the Authority.
- To provide non-discriminatory open access to its transmission system for use by any licensee or generating company on payment of the transmission charges or any consumer as and when such open access is provided by the State Commission, on payment of the transmission charges and a surcharge thereon, as may be specified by the State Commission.

As per the Meghalaya Power Sector Transfer Scheme, MePTCL has been vested with the function of transmitting power by the State Government of Meghalaya. The Business Scope of the Company falls within the legal framework as specified in the Act and includes:

- Undertaking transmission of electricity through intra-State transmission system.
- Ensuring development of an efficient, coordinated and economical system of intra-State transmission lines for smooth flow of electricity from a generating station to the load centers.
- Discharging all functions of planning and co-ordination relating to intra-state transmission system with Central Transmission Utility, State Government, Generating Companies, Regional Power Committees, Authority and Licensees.
- To provide non-discriminatory open access to its transmission system for use by any licensee or generating company or any consumer as and when such open access is provided by the State Commission.
- Engaging in any business for optimum utilization of assets, with prior intimation to the State Commission

2.2 Performance Highlights

MePTCL has inherited an ageing network from MeSEB, which itself had inherited the network from Assam State Electricity Board (ASEB) in 1975. However, both the erstwhile MeSEB and MePTCL have added significant network assets in previous few years in order to sustain the load growth and to provide reliable power transmission corridor to the state of Meghalaya. The MePTCL presently has a workforce of 347 regular employees and 88 casual employees, headed by Director (Transmission).

The key physical achievements of MePTCL are highlighted below:

Table 1: Performance Highlights of MePTCL

Details	2006	2014	2017
Length of 400 KV lines (circuit km)	Nil	4.216	4.428
No. of 400KV/ 220KV Grid Substations	NIL	1	1
Capacity of 400KV/ 220KV Grid Substations (MVA)	Nil	630	630
Length of 220 KV lines (in circuit km)	NIL	226.84	226.84
No. of 220KV/ 132KV Grid Substations	1	1	1
Capacity of 220KV/ 132KV Grid Substations (MVA)	100	520	520
Length of 132 KV lines (in circuit km)	680.575	992.704	995.564
No. of 132KV/33KV Grid Substations	11	13	15
Capacity of 132KV/33KV Grid Substations (MVA)	305.5	465	500

Apart from capacity building, MePTCL has also put in a lot of efforts in order to improve its system availability thereby ensuring reliable power. The improvement in the system availability is depicted below:

Table 2: Transmission System Availability from FY 2014-15 to FY 2017-18 (Present)

Transmission System Availability	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18 (At Present)
Intra-State Availability	99.351	96.621	99.381	99.52	99.73

The licensee would constantly strive to put in efforts to enhance its system for the benefit of all stakeholders.

4. ARR for 2nd Control Period of FY 2018-19 to FY 2020-21

3.1 Approach

In accordance with the provisions of the MYT Regulations, 2014, the MePTCL hereby submits ARR for FY 2018-19 to FY 2020-21 based on audited actuals of FY 2015-16 and provisional of FY 2016-17.

MePTCL had submitted the Business plan for FY 2018-21 including capital investment plan, financing plan, physical targets etc. which has been approved by the Commission. The licensee is using it as a base along with the actual data of FY 2015-16 and FY 2016-17 as per statement of accounts for determination of ARR for future periods.

3.2 Annual Expenditure of MePTCL

The Regulation 65 of the MYT Regulations, 2014, provides the cost components of MePTCL. The relevant regulation is reproduced below for ready reference:

“65 Components of tariff

Annual Transmission Charges for each year of the Control Period:

65.1 The Annual Transmission Charges for each financial year of the Control Period shall provide for the recovery of the Aggregate Revenue Requirement of the Transmission Licensee for the respective financial year of the Control Period, a reduced by the amount of Non-Tariff Income, income from Other Business and short-term transmission charges of the previous year, as approved by the Commission: Provided that in case of competitively awarded transmission system projects in pursuance of Section 63 of the Act and in accordance with guidelines for competitive bidding for transmission, the annual transmission charges shall be as per the annual Transmission Service Charges (TSC) quoted by such competitively awarded transmission projects.

65.2 The Annual Transmission Charges of the Transmission Licensee shall be determined by the Commission on the basis of an application for determination of Aggregate Revenue Requirement made by the Transmission Licensee in accordance with Chapter-2 of these Regulations.

65.3 The Annual Expenditure of the Transmission Licensee shall comprise of the following:

- 1) Return on equity as may be allowed;*
- 2) Interest on loan capital;*
- 3) Depreciation as may be allowed;*
- 4) Interest on working capital;*
- 5) Operation and maintenance expenses;*
- 6) Taxes on Income*

7) Annual License fee

65.4 The Annual Transmission Charge of the Transmission Licensee shall be determined after deducting the following components from the Annual Expenditure as determined above:

- 1) Income from surcharge and additional surcharge for Open Access Consumers if any
- 2) Transmission/wheeling charges recovered from Open Access Consumers, if any
- 3) Authorized portion of Income/ Revenue from other business engaged in by the Licensee for optimum utilization of assets, if any.”

3.3 Gross Fixed Assets

The opening balance of GFA of MePTCL as on 1.4.2016 is **Rs. 434.49 Cr.** The closing GFA for each year of the control period is worked out after adding the actual capitalization during each year which was submitted and approved in the Business Plan and is given below:

Table: Gross Fixed Asset Details (Rs. Cr)

Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Opening GFA	434.49	438.82	580.85	1364.92	1474.84
Additions during the year	4.39	142.03	784.07	109.92	392.75
Retirements during the year	0.06				
Closing GFA	438.82	580.85	1,364.92	1,474.84	1,867.59

MePTCL submits before the Hon'ble Commission to kindly approve Rs. **1,364.92Cr**, Rs. **1,474.84Cr** and Rs. **1,867.59Cr** as Gross Fixed Assets for FY 2018-19, FY 2019-20 and FY 2020-21 respectively.

3.4 Return on Equity

The relevant regulations for determination of debt-equity ratio are extracted for reference as below:

“27 Debt-Equity Ratio

27.1 For a project declared under commercial operation on or after 1.4.2015, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan;

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff.

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

Provided any grant obtained for execution of the project shall not be considered as a part of capital structure for the purpose of debt-equity ratio.

Explanation:- The premium, if any, raised by the generating company or the transmission licensee or the distribution licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure.

27.2 In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2015, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2015 shall be considered.

27.3 Any expenditure incurred or projected to be incurred on or after 1.4.2015 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in this regulations.”

The Regulation 31 of the MYT Regulations, 2014, provides for computation of Return on Equity. The extract is reproduced below:

“31 Return on Equity

31.1 Return on equity shall be computed on the equity base determined in accordance with regulation 27 and shall not exceed 14%.

Provided that in case of generation & transmission projects commissioned after notification of these regulations, an additional return of 0.5 % shall be allowed if such projects are completed within the time line as specified in CERC Tariff Regulations.

Provided that in case of generation & transmission projects commissioned after the notification of these regulations an additional return of 1.5 % shall be allowed if such projects are completed within the original sanctioned project cost without any time and cost overrun whatsoever.

Provided that equity invested in a foreign currency may be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

- *The premium received while issuing share capital shall be treated as a part of equity provided the same is utilized for meeting capital expenditure.*
- *Internal resources created out of free reserves and utilized for meeting capital expenditure shall also be treated as a part of equity.”*

Based on the above submission the Return on Equity computation is shown in the table below:

Table: Return on Equity Computation (Rs. Cr)

Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Opening Equity	407.3	421.19	463.80	690.83	723.80
Equity Added during the year (A)		106.92	227.03	145.66	141.90
30% of GFA added each year (B)		42.61	235.22	32.98	117.83
Addition of Equity (Lower of A & B)	13.89	42.61	227.03	32.98	117.83
Closing Equity	421.19	463.80	690.83	723.80	841.63
Equity Base	414.25	442.49	577.31	707.32	782.72
RoE (%)	14%	14%	14%	14%	14%
Return on Equity (in Rs. Cr.)	57.99	61.95	80.82	99.02	109.58

MePTCL submits before the Hon'ble Commission to kindly approve Rs. **80.82**Cr, Rs. **99.02**Cr and Rs.**109.58**Cr as RoE for FY 2018-19, FY 2019-20 and FY 2020-21 respectively.

3.5 Interest and Finance Charges on Loan Capital

As per Regulation 32 of the MYT Regulations, 2014, Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreements, bond or debenture and the prevailing lending rate of bank and financial institution.

The funding pattern and capital expenditure during the control period for ongoing and proposed projects submitted in the Business Plan have already been approved by the Commission. Based on the capital expenditures of upcoming projects and ongoing projects, detailed statement of Loan for the control period is enclosed as Format-7 of Annexure A.

The summarized statement of Interest and Finance charge for the Control Period is shown below:

Table: Computation of Interest & Finance Charges -MePTCL

Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Opening Balance	94.41	102.87	107.00	121.92	153.30
Addition During the Year	60.15	16.64	27.87	44.34	60.55
Repayment during the year	51.69	12.52	12.96	12.96	12.96
Closing Balance	102.87	107.00	121.92	153.30	200.89
<i>Average Interest Rate</i>	11.27%	10.59%	10.24%	9.86%	9.56%

Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Interest Payable	11.12	11.12	11.72	13.57	16.93
Add: Finance Charge and MeECL Apportioned	3.47				
Interest and Finance Charges	14.59	11.12	11.72	13.57	16.93

MePTCL submits before the Hon'ble Commission to kindly approve Rs. **11.72Cr**, Rs. **13.57Cr** and Rs **16.93Cr** as RoE for FY 2018-19, FY 2019-20 and FY 2020-21 respectively.

3.6 Operation and Maintenance Expenses

O&M expenditure has been projected based on the methodology adopted by Central Electricity Regulatory Commission (CERC) for calculation of O&M norms in 2014-19 regulations. This methodology is based on calculation of norms based on the estimated business growth in terms of sub-station capacity and transmission line length and an inflation index calculated based on actual increase observed in past fiscal years on account of inflation.

The Regulation 69.3 of the MYT Regulations, 2014, also provides for calculation of O&M Expenses based on norms for transmission. The extract is reproduced below:

“69.3 The norms for O&M expenses on the basis of circuit kilometers of transmission lines, transformation capacity and number of bays in substations shall be submitted for approval of the Commission.

69.4 The Commission shall verify the budget estimates and projections and allow the expenditure depending on its views about the reasonableness of the projections.”

Based on the CERC methodology, 70% weightage of O&M expenses has been allocated for sub-station expenses and 30% weightage has been allocated for transmission line. Accordingly, actual O&M cost per MVA and O&M cost per CKM has been calculated for the past years. Subsequently, the O&M cost per MVA and O&M cost per ckm have been projected for the control period on the basis of CAGR of the actual expenses incurred for the three financial year period ending in FY 2016-17, after accounting for 10% margin in line with the methodology prescribed in CERC regulations to mitigate the risks of inflation in future fiscal years and to encourage the company to undertake required O&M works to ensure reliability of supply and health of assets. The norms calculated for O&M cost per MVA and O&M cost per ckm are provided below:

Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Norms (in INR crores)					
O&M Cost/ MVA	0.030	0.032	0.035	0.038	0.041

Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Norms (in INR crores)					
O&M Cost/ CKM	0.017	0.019	0.021	0.023	0.025
Business Growth					
Transmission Capacity (MVA)	1650	1760	1785	2855	2895
Average No of Lines (CKM)	1226.83	1268	1412	1890	2149

The Annual O&M expense for substations has been projected by multiplying the projected transmission capacity and O&M cost per MVA. Similarly, the O&M expenses for lines has been projected by multiplying the projected transmission network length and O&M cost per CKM. The total annual O&M cost is obtained by adding the annual O&M cost for sub-stations and transmission lines. Based on these projections, the escalation factor for O&M cost has been calculated for FY 2017-18. Using this method, the consolidated annual escalation rates for O&M expenditure for FY 2018-19 and FY 2019-20 & FY 2020-21 has been estimated to be 13.71%, 65.19% & 14.26% respectively.

Expenditures on the heads of Employee expenses, Administrative & General Expenses & Repair & Maintenance Expenses have been projected for the control period by using the escalation factor estimated by the O&M cost projection methodology stated in the above period and is given below. The computation of detailed Employee expenses, Administrative & General Expenses & Repair & Maintenance Expenses have been given in Format 1,2& 4 in Annexure A.

Table: Total Projected O&M Expenses for Control period

Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Employee Expenses	64.65	74.42	84.62	139.78	159.72
Repair & Maintenance Expenses	3.26	3.75	4.27	7.05	8.05
Administration & General Expenses	19.34	2.66	3.02	4.99	5.71
O&M Expenses	87.25	80.83	91.91	151.83	173.48

MePTCL submits before the Hon'ble Commission to kindly approve O&M Expenses of Rs. 91.91 Cr, Rs 151.83 Cr and Rs.173.48 Cr for FY 2018-19 and FY 2019-20 & FY 2020-21.

3.7 Provision for Bad Debts

MePTCL has huge receivables from the transmission charges billed to MePDCL as also provided in the audited statement of accounts for FY 2015-16. As per the accounting policies, MePTCL has projected a bad debt of Rs 20.51 during each year for the control period to recover the outstanding receivables in the books of accounts.

Hence the licensee submits before the Commission to approve the bad debt as mentioned above for the 2nd control period.

3.8 Depreciation

Depreciation is computed as per Regulation 33 of the MYT Regulations, 2014. The depreciation is projected based on the approved capitalization in the business plan based on estimated completion of ongoing and upcoming projects during the control period. Depreciation has not been computed on assets created out of government grants as per regulations and the same has been deducted as shown in the table below.

The computation of depreciation is shown in the table below and attached as Format-6.

SL No	Name of the Asset	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Land	-	-	-	-	-
2	Buildings	0.46	0.61	1.17	1.70	2.01
3	Plant and Equipment	7.70	10.29	19.64	28.67	33.74
4	Furniture and Fixtures	0.07	0.12	0.22	0.32	0.38
5	Vehicles	0.07	0.31	0.59	0.86	1.01
6	Office equipment	0.06	0.10	0.20	0.29	0.34
7	Bearer Plants	-	-	-	-	-
8	Others:	-	-	-	-	-
a)	Hydraulic Works	0.01	0.01	0.01	0.02	0.02
b)	Other Civil Works	0.33	0.44	0.84	1.22	1.44
c)	Lines and Cable Network	12.40	15.18	28.96	42.27	49.75
10	Assets under lease	-	-	-	-	-
	Total	21.09	27.05	51.62	75.34	88.68
11	Ammortization of Grants	0.46	8.41	21.64	29.99	36.22
	Net Depreciation	20.63	18.65	29.98	45.35	52.45

MePTCL submits before the Hon'ble Commission to kindly approve Depreciation of Rs **29.98Cr**, Rs **45.35 Cr** and Rs.**52.45Cr** for for FY 2018-19 and FY 2019-20 & FY 2020-21.

3.9 Interest on Working Capital

As per Regulation 34.3 (i) of the MYT Regulations, 2014, the components of working capital will be:

“34.2 Transmission Business

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

Operation and maintenance expenses for one month; plus

Maintenance spares at one (1) per cent of the historical cost escalated at 6% from the date of commercial operation; plus

Receivables equivalent to two (2) month of transmission charges calculated on target availability level;

Interest shall be allowed at a rate equal to the State Bank Advance Rate (SBAR) as on 1st April of the financial year in which the Petition is filed.”

As per Regulation 34.2 (i) of the MYT Regulations, 2014, the State Bank Advance Rate (SBAR) as on 1st April of the financial year in which the Petition is filed need to be considered as interest rate for computation of Interest on Working Capital.

The projections of Working Capital and Interest on working capital for the control period is calculated as shown in the table below:

Table: Interest on Working Capital (Rs. Cr)

Sl. No.	Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
A	O&M Expenses for 12 months	87.25	80.83	91.91	151.83	173.48
B	O&M Expense for 1 month (C/12)	7.27	6.74	7.66	12.65	14.46
C	Average Fixed Assets for the Year	436.65	509.83	972.88	1419.88	1671.21
D	1% Spares budgeted for FY 13-14 (1% of E)	4.37	5.10	9.73	14.20	16.71
E	Receivables for 2 months	26.73	28.30	35.10	51.07	57.87
F	Total Working Capital (B+D+E)	38.37	40.14	52.49	77.92	89.04
G	SBI short term PLR	14.75%	14.05%	14.05%	14.05%	14.05%
H	Interest on Working Capital	5.66	5.64	7.37	10.95	12.51

MePTCL submits before the Hon'ble Commission to kindly approve Interest on Working capital of Rs.7.37Cr, Rs 10.95 Cr and Rs.12.51Crfor FY 2018-19 and FY 2019-20 & FY 2020-21.

3.10 SLDC Charges

As per as Regulation 1, 3(3) , 3(6) of MSERC (Levy and Collection of State Load Despatch Centre Fees and Charges) Regulations, 2009, MePTCL will need to bear 50% of the Annual Revenue Requirement of SLDC. As per projections received from SLDC, the total ARR of SLDC for the FY 2018-19, FY 2019-20 & FY 2020-21 is Rs. 2.42 Cr, Rs 2.54 Cr and Rs 2.66 Cr respectively. Therefore it is submitted that Rs. 1.21, Rs 1.27 & Rs 1.33 (50% of the total SLDC ARR) may kindly be allowed to be passed through as SLDC charges for FY 2018-19 and FY 2019-20 & FY 2020-21 as a part of Transmission ARR.

3.11 Non-Tariff Income

The Regulation 65 of the MYT Regulations, 2014, provides the cost components of MePTCL. The relevant regulation is reproduced below for ready reference:

“65 Components of tariff

.....

65.4 The Annual Transmission Charge of the Transmission Licensee shall be determined after deducting the following components from the Annual Expenditure as determined above:

Income from surcharge and additional surcharge for Open Access Consumers if any

Transmission/wheeling charges recovered from Open Access Consumers, if any

Authorised portion of Income/ Revenue from other business engaged in by the Licensee for optimum utilization of assets, if any.”

The summary of Non-Tariff Income is given below:

Table: Non-Tariff Income Summary

SL No	PARTICULARS	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Discount Received	0.030	0.033	0.036	0.040	0.044
2	Application Fee for STOA		0.000	0.000	0.000	0.000
3	Miscellaneous receipts	0.006	0.006	0.007	0.007	0.008
4	Income from Trading	0.006	0.006	0.007	0.007	0.008
5	Interest on overdue trade receivables	0.042	0.046	0.051	0.056	0.061
6	Interest Income	3.880	4.268	4.694	5.164	5.680
7	Revenue from Transmission & Operating Charges	16.999	18.699	20.569	22.626	24.888
8	Revenue from Other Charges	0.278	0.306	0.337	0.370	0.407
9	Other Income of MeECL Apportioned	3.976	4.374	4.811	5.293	5.822
	Total	25.216	27.738	30.512	33.563	36.919

MePTCL submits before the Hon'ble Commission to kindly approve Rs.**30.512Cr**, Rs. **33.563Cr** and Rs **36.919Cr** as non-tariff income for FY 2018-19, FY 2019-20 and FY 2020-21 respectively.

3.12 Annual Revenue Requirement for the Control Period

Based on the detailed computation of ARR components, the abstract of ARR is shown in the table below .MePTCL submits before the Hon'ble Commission to kindly approve Net ARR of Rs **210.61**, **Rs 306.40 Cr**, **Rs 347.22 Cr** for FY 2018-19, FY 2019-20 & FY 2020-21 respectively. The component-wise summary of ARR is given in table below:

Table: Annual Transmission Charges (Rs. Cr)

Sl. No.	Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Return on Equity (RoE)	57.99	61.95	80.82	99.02	109.58
2	Interest and Other Finance Charges	14.59	11.12	11.72	13.57	16.93
3	Operation and Maintenance expenses					
	i)Employee Expenses	64.65	74.42	84.62	139.78	159.72
	ii)R&M Expenses	3.26	3.75	4.27	7.05	8.05
	iii)A&G Expenses	19.34	2.66	3.02	4.99	5.71
4	Interest on Working Capital	5.66	5.64	7.37	10.95	12.51
5	Depreciation as may be allowed	20.63	18.65	29.98	45.35	52.45
6	SLDC Charges	1.00	1.15	1.21	1.27	1.33
7	Prior Period Expenses	0.46				
8	Provision for bad debts		20.51	20.51	20.51	20.51
	Total Annual Expenditure	187.58	199.85	243.54	342.50	386.80
9	Less: SLDC ARR	2.00	2.30	2.42	2.54	2.66
	Net Annual Expenditure	185.58	197.55	241.12	339.96	384.14
10	Less: Other Income	25.22	27.74	30.51	33.56	36.92
	Net Annual Revenue Requirement	160.37	169.81	210.61	306.40	347.22

5. Computation of Transmission Charges

4.1 Regulatory Provisions

MePTCL submits that based on the Annual Fixed Cost approved by Hon'ble Commission it will calculate the Transmission Charges based on following provisions:

“72 Sharing of Transmission Charges

72.1 In case of more than one beneficiaries of the transmission system, the monthly transmission charges leviable on each beneficiary shall be computed as per the following formula:

Transmission charges for transmission system payable for a month by the beneficiary of that transmission system = $\left[\frac{TC}{12} - TRSC \right] \times \frac{CL}{SCL}$

Where

TC= Annual Transmission charges computed in accordance with Regulation 65.

CL=Allotted transmission capacity of the beneficiary

SCL=Sum of allotted transmission capacities of all the beneficiaries of the state transmission system

TRSC=Total recovery of transmission charges for the month from short term transmission consumers.”

74. Computation and payment of transmission charge for Intra-State Transmission system.

74.1 The fixed cost of the transmission system shall be computed on annual basis, in accordance with norms contained in these regulations, aggregated as appropriate, and recovered on monthly basis as transmission charge from the users, who shall share these charges in the manner specified.

74.2 The transmission charge (inclusive of incentive) payable for a calendar month for a transmission system or part thereof shall be

$$= AFC \times (NDM / NDY) \times (TAFM / NATAF)$$

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

NATAF= Normative annual transmission availability factor in percent

NDM = Number of days in the month

NDY = Number of days in the year

TAFM = Transmission availability factor achieved during the month, in %

The transmission licensee shall raise the bill for the transmission charge (Inclusive of incentive) for a month based on its estimate of TAFM.

As per the Annexure-III of MYT

Procedure for Calculation of Transmission System Availability Factor for a Month as per latest CERC Regulations

The TAFM shall be computed in accordance with the following formula:

TAFM= (100-100 x NAFM) where

$$NAFM = \frac{[\sum_{l=1}^L(OH_l \times Cktkm_l \times NSC_l) + \sum_{t=1}^T(OH_t \times MVA_t \times 2.5) + \sum_{r=1}^R(OH_r \times MVAR_r \times 4)]}{THM} \times \frac{[\sum_{l=1}^L(Cktkm_l \times NSC_l) + \sum_{t=1}^T(MVA_t \times 2.5) + \sum_{r=1}^R(MVAR_r \times 4)]}{THM}$$

Where,

l identifies transmission line circuit

t identifies transformer circuit

r identifies bus reactor, switchable line reactor and SVCs.

T= total no. of transformers and ICTs.

L= total no. of line circuits

R= total no. of bus reactors, switchable line reactor and SVCs.

Ckt km= length of a transmission line circuit in km

NSC= no. of sub conductors per phase

MVA= MVA rating of transformer/ ICTs

MVAR=MVAR rating of bus reactor, switchable line reactor and SVCs.

THM= Total hours in a month

OH= Outage hours or hours of non-availability in a month, excluding the duration of outages not attributable to transmission licensee

NAFM for each HVDC system shall be calculated separately, as follows :

$$NAFM = [\Sigma (TCR \times \text{hours})] \div [THM \times RC]$$

Where

TCR = Transmission capability reduction of the system in MW

RC = Rated capacity of the system in MW.

For the above purpose, the HVDC terminals and directly associated EHV / HVDC lines of an HVDC system shall be taken as one integrated system

4.2 Transmission ARR for FY 2018-19 and its Recovery Mechanism

The transmission ARR for FY 2018-19as computed is Rs 210.61 Cr as shown below which needs to be recovered through transmission charges:

Table: ARR of FY 2018-19 (in Rs. Cr.)

Particulars	Amount
Projected ARR of FY 2018-19	210.61

4.3 Transmission Tariff for FY 2018-19

Accordingly, the petitioner has computed the transmission tariff as below:

Table: Open Access Charges of FY 2016-17

Sl. No.	Particulars	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Annual Transmission Charges (Rs. Lakhs)	16,980.99	21,060.84	30,639.99	34,722.18
2	Transmission Capacity as per MSERC MYT Regulations 2014 (MW)	661.5	729.5	758	758
3	Transmission Tariff (Rs / MW / Day)	7,032.99	7,909.65	11,074.56	12,550.04
4	Energy Transfer (MU)	2747.63	3105.86	3105.86	3105.86
5	Transmission Tariff (Paise/ Unit)	61.80	67.81	98.65	111.80

The petitioner prays to the Honorable Commission to kindly allow the tariff for FY 2018-19 as computed above.