



Meghalaya State Electricity Regulatory Commission

**Aggregate Revenue Requirement for Multi Year ARR
control period FY 2018-19 to FY 2020-21**

&

Transmission Tariff

For

FY 2018-19

Meghalaya Power Transmission Corporation Limited

CONTENTS

ORDER	5
1. Introduction	8
1.1 Background	8
1.2 Meghalaya Power Distribution Company Limited	8
1.3 Meghalaya State Electricity Regulatory Commission	9
1.4 Admission of the Petition and Public hearing process	9
2. Summary of ARR Petition for 2nd MYT Control period FY 2018-19 to FY 2020-21 and Determination of Transmission Tariff for FY 2018-19	11
2.1 Aggregate Revenue Requirement (ARR) for 2 nd Control Period FY 2018-19 to 2020-21	11
2.2 Company Profile and Performance Overview	11
2.3 Performance Highlights	12
3. Public Hearing Process	15
3.1 General.....	15
4. Commission’s Approach.....	28
4.1 Background	28
4.2 General Guiding Principles.....	29
4.3 Business Plan.....	29
4.4 Specific Trajectory.....	30
4.5 Truing Up.....	30
4.5.1 Current Petition	30
4.6 Financial Principles.....	31
4.7 Additional Capitalization	31
4.8 Debt Equity Ratio	32
4.9 Return on Equity	32
4.10 Interest and Finance Charges on Loan Capital	33
4.11 Depreciation.....	34
4.12 Interest on Working Capital	34
4.13 Operation and Maintenance Cost:	35
4.14 Income Tax.....	35

4.15 Calculation of ARR:.....	36
4.16 Norms of Operation	36
4.17 Payment of transmission charges by customers	37
4.18 Transmission losses.....	37
4.19 Open access charges	38
5. Analysis of Aggregate Revenue Requirement (ARR) for the 2 nd Control period FY 2018-19 to FY 2020-21 and determination of Transmission Tariff for FY 2018-2019	39
5.1 Methodology for filing of ARR of FY 2018-19 to FY 2020-21.....	39
5.2 ARR for Control Period of FY 2018-19 to FY2020-21	39
5.3 Transmission Network details.....	40
5.4 Normative Annual Transmission Availability Factor:.....	45
5.5 Transmission LossTrajectory	45
5.6 Gross Fixed Assets for Control period	46
5.7 Return on Equity:-	48
5.8 Interest and Financial Charges on Loan Capital.....	50
5.9 O & M Expenses	52
5.10 Provision for Bad Debts	57
5.11 Depreciation.....	58
5.12 Interest on Working Capital	61
5.13 SLDC Charges.....	62
5.14 Non- Tariff Income	63
6. Transmission Tariff and Open Access Charges	65
6.1 Computation of Transmission and Open Access Charges:	65
7. Directives	66

List of Tables

Table 2.1: Performance Highlights of MePTCL	12
Table 2.2: Transmission System Availability from FY 2014-15 to FY 2017-18 (Present)	13
Table 2.3: Aggregate Revenue Requirement (ATC)	13
Table 5.1: Details of Transmission Lines	40
Table 5.2: Details of Sub-stations	41
Table 5.3: Details of Transmission Lines as on 31.03.2017	41
Table 5.4 : Details of SUB-STATIONS (AS ON 31.03.2017)	43
Table 5.5: Transmission Loss Trajectory	46
Table 5.6: Gross Fixed Assets Projected for control period.....	47
Table 5. 7: GFA Computed as per the Statement of Accounts	47
Table 5.8: GFA approved for FY 2018-19 to FY 2020-21.....	48
Table 5.9 : Return on Equity Computation	48
Table 5. 10: Approved Return on Equity for control period	50
Table 5.11: Interest and Finance Charges (Projected) for control period	50
Table 5.12: Schedule of Capital Loans projected for the control period.....	51
Table 5.13: Approved Interest on Loans.....	52
Table 5.14: Transmission Net work data, Projected for control period	53
Table 5.15: O&M Expenses Projected.....	53
Table 5.16: Actual O&M expenses as per Statement of Accounts	54
Table 5. 17: Computation of O&M Expenses as per CERC norms	56
Table 5. 18: Computation of Base year O&M Expenses inclusive of 1/3 MeECL Cost	57
Table 5. 19: Approved O&M expenses inclusive of MeECL Cost for the control period	57
Table 5.20: The GFA approved is detailed below	60
Table 5.21: Computation of Depreciation	60
Table 5.22: Depreciation approved for the Control Period	60
Table 5.23: Interest on Working Capital	61
Table 5. 24: Approved Interest on Working Capital for the Control Period.....	62
Table 5.25: Non-Tariff Income Summary	63
Table 5.26: ARR (Annual Transmission Charges) for the control period FY 2018-19 to FY 2020-21	64

Abbreviations

A&G	Administration & General
ARR	Aggregate Revenue Requirement
APTEL	Appellate Tribunal For Electricity
CAGR	Compound Annual Growth Rate
CD	Contract Demand
CoD	Commercial Operation Date
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
CoS	Cost of Supply
CWIP	Capital Work In Progress
DE	Debt Equity
EHT	Extra High Tension
FY	Financial Year
GOM	Government of Meghalaya
GFA	Gross Fixed Assets
HT	High Tension
KV	Kilo Volt
KVA	Kilo Volt Amps
KVAh	Kilo Volt Ampere hour
KW	Kilo Watt
kWh	kilo Watt hour
LT	Low Tension
MVA	Million Volt Amps
MU	Million Unit
MW	Mega Watt
MYT	Multi Year Tariff
MeECL	Meghalaya Energy Corporation Limited
MePGCL	Meghalaya Power Generation Corporation Limited
MePDCL	Meghalaya Power Distribution Corporation Limited
MePTCL	Meghalaya Power Transmission Corporation Limited
MSERC	Meghalaya State Electricity Regulatory Commission
ROE	Return on Equity
SLDC	State Load Despatch Centre

MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

1ST Floor (Front Block Left Wing), New Administrative Building

Lower Lachumiere, Shillong-793001

East Khasi Hills District, Meghalaya

In the matter of

Determination of Multi Year Aggregate Revenue Requirement (ARR) for FY 2018-19 to 2020-21 and Transmission Tariff for FY 2018-19 and Open Access charges for Transmission of Power in the State of Meghalaya.

AND

Meghalaya Power Transmission Corporation Limited Petitioner
(Herein after referred to as MePTCL)

Coram

WMS PARIAT, IAS (Retd),
Chairman

ORDER

(Dated:31.03.2018)

1. The Meghalaya Power Transmission Corporation Limited (herein after referred to as MePTCL) is a deemed licensee in terms of section 14 of the Electricity Act 2003 (herein after referred to as Act), engaged in the business of transmission of electricity in the state of Meghalaya.
2. As per the directive of the Commission, the MePTCL has filed the Petition for determination of Multiyear Aggregate Revenue Requirement (ARR) for 2nd control period FY 2018-19to 2020-21and Transmission Tariff for FY 2018-19.
3. In exercise of the powers vested under section 62 (1) read with section 62 (3) and section 64 (3) of the Electricity Act 2003 and MSERC MYT Regulations, 2014 (Notified

on 09.06.2014) (herein after referred to as Tariff regulations) and other enabling provisions in this behalf the Commission issues this order for approval of the ARR for second control period and determination of Transmission Tariff for FY 2018-19 & Open Access charges for Transmission of electricity in the state of Meghalaya.

4. Tariff Regulations specify that the Transmission licensee shall file ARR and Tariff petition in all aspects along with requisite fee as specified in Commission's fee, fines and charges regulations on or before 30th November of the preceding year. Accordingly the MePTCL has filed the ARR and Tariff Petition for the 2nd Control Period FY 2018-19 to 2020-21 and for ARR Tariff for FY 2018-19 on 30.11.2017.
5. Regulation 21 of the Tariff Regulations, 2014 provides for giving adequate opportunities to all stake holders and general public for making suggestions/objections on the Tariff Petition as mandated under section 64(3) of the Electricity Act 2003. Accordingly the Commission directed MePTCL vide order dated 04.12.2017 to publish the ARR for 2nd control period FY 2018-19to 2020-21and Tariff Petition in an abridged form as public notice in newspapers having wide circulation in the state inviting suggestions/objections on the Tariff Petition.
6. Accordingly MePTCL has published the Tariff Petition in the abridged form as public notice in various newspapers and the Tariff petition was also placed on the website of MePTCL. The last date of submission of suggestions/objections was fixed on 15.02.2018.
7. The Commission, to ensure transparency in the process of Tariff determination and for providing proper opportunity to all stake holders and general public for making suggestions/ objections on the Tariff petition and for convenience of the consumers and general public across the state, decided to hold the public hearing at the headquarters of the state, accordingly the Commission held public hearing at Shillong on the 08.03.2018.
8. The Proposal of MePTCL was also placed before the State Advisory Committee in its meeting held on 15.02.2018 and various aspects of the Petition were discussed by the Committee. The Commission took into consideration the advice of the State Advisory Committee on the ARR and Tariff Petition of MePTCL for the 2nd control period FY 2018-19 to 2020-21 during the meeting of the Committee.

9. The Commission took into consideration the facts presented by the MePTCL in its petition and subsequent various filings, the suggestions/objections received from stakeholders, consumer's organizations, general public and State Advisory Committee and response of the MePTCL to those suggestions/objections.
10. The Commission taking into consideration all the facts which came up during the public hearing and meeting of the State Advisory Committee, approved ARR for MYT 2nd control period FY 2018-19 to 2020-21 and Transmission tariff for FY 2018-19.
11. The Commission has reviewed the directives issued earlier in the Tariff Orders for FY 2013-14 to 2017-18 and noted that some of the directives are complied and some are partially attended. The Commission has dropped the directives complied with and the remaining directives are consolidated and fresh directives are issued.
12. This Order is in 7 chapters as detailed below.

Chapter 1: Introduction

Chapter 2: Summary of ARR & Tariff petition for 2nd Control Period FY 2018-19 to FY 2020-21 and determination of Tariff for FY 2018-19.

Chapter 3: Public Hearing process

Chapter 4: Commission's Approach

Chapter 5: Analysis of Multiyear ARR for FY 2018-19 - FY 2020-21 and Determination of Transmission Tariff for FY 2018-19

Chapter 6: Open Access Charges

Chapter 7: Directives

The MePTCL should ensure implementation of the order from the effective date, after issuance of a public notice, in such a font size which is clearly visible in two daily newspapers having wide circulation in the state within a week. Compliance of the same shall be submitted to the Commission.

This order shall be effective from 1st April, 2018 and shall remain in force till 31st March, 2019 or till the next Tariff Order of the Commission.

Sd/-

WMS Pariat IAS (Retd)
Chairman
MSERC

1. Introduction

1.1 Background

The Meghalaya Power Transmission Corporation Limited (here after referred to as MePTCL or Petitioner) has filed its petition on 30.11.2017 under section 62 of the Electricity Act, 2003 read with Meghalaya State Electricity Regulatory Commission MYT Regulations, 2014 for determination of Aggregate Revenue Requirement for 2nd Control period FY 2018-19 to 2020-21 and determination of Transmission tariff for FY 2018-19.

The Commission has admitted the Petition provisionally on 04.12.2017

1.2 Meghalaya Power Transmission Company Limited

The Government of Meghalaya has unbundled and restructured the erstwhile Meghalaya State Electricity Board with effect from 31st March, 2010 into the Generation, Transmission and Distribution businesses. The erstwhile Meghalaya state Electricity Board was transformed into four successor entities, viz.,

- (1). Generation : Meghalaya Power Generation Corporation Limited (MePGCL)
- (2). Transmission : Meghalaya Power Transmission Corporation Limited (MePTCL)
- (3). Distribution : Meghalaya Power Distribution Corporation Limited (MePDCL)
- (4). Meghalaya Energy Corporation Limited (MeECL) a holding company.

The Government of Meghalaya issued further notification on 16th September, 2013 notifying the revised statement of assets and liabilities as on 1st April, 2010 to be vested in Meghalaya Energy Corporation Limited.

The Government of Meghalaya issued further amendment on 29.04.2015 notifying the revised statement of Assets & Liabilities as on 31.03.2012 to be vested in the MeECL and re-vested in unbundled successor entities viz., MePGCL, MePTCL, MePDCL and MeECL (The Holding Company). The new entities have been functionalized with effect from 01.04.2013.

As per the said notification issued by the Government of Meghalaya a separate corporation "Meghalaya Power Transmission Corporation Limited" (MePTCL) was incorporated for undertaking Transmission Business.

1.3 Meghalaya State Electricity Regulatory Commission

Meghalaya State Electricity Regulatory Commission (here in after referred to as “MSERC” or the Commission) is an independent statutory body constituted under the provisions of the Electricity Act (EA), 2003. The Commission is vested with the authority of regulating the power sector in the state inter alia including determination of tariff for electricity consumers.

1.4 Admission of the Petition and Public hearing process

The MePTCL has submitted the current petition for determination of Multi Year Aggregate Revenue Requirement (ARR) for 2nd Control Period FY 2018-19 to 2020-21 Including determination of tariff for FY 2018-19. The Commission undertook the technical validation of the Petition and admitted the Petition Provisionally on 04.12.2017.

In accordance with section 64 of the Electricity Act, 2003, the Commission directed the MePTCL to publish the petition in abridged form to ensure public participation. The public notice, inviting objections/ suggestions from its stakeholders on the ARR and tariff petition filed by it, was published in the following news papers on the dates noted against each.

Sl. No	Name of News paper	Language	Date of Publication
1	The Shillong Times	English	8 th & 13 th December 2018
2	U Mawphor	Khasi	8 th & 13 th December 2018
3	Salantini Janera	Garo	9 th & 13 th December 2018

The Petitioner has also placed the public notice and the Petition on the website (www.meecl.nic.in) inviting objections and suggestions on its petition. The interested parties/stakeholders were asked to file their objections/suggestions on the petition on or before

MePTCL/Commission received some objections/suggestions from Consumers/ consumer organizations. The Commission examined the objections/ suggestions received and fixed the date for public hearing on MePTCL petition to be held on 8th March 2018. Communication was also sent to the objectors to take part in the public hearing process for presenting their views in person before the Commission. The

Public hearing was conducted at Commission's office in Shillong as scheduled. The Commission also held meeting with State Advisory Committee on 15.02.2018. Proceedings of meeting are given in Annexure-I

The names of consumers/consumer organizations those filed their objections and the objectors who participated in the public hearing for presenting the objections are given in the Annexure II.

A short note on the main issues raised by the objectors in the written submission and also in the public hearing along with response of MePTCL and the Commission views on the response are briefly given in chapter-3.

2. Summary of ARR Petition for 2nd MYT Control period FY 2018-19 to FY 2020-21 and Determination of Transmission Tariff for FY 2018-19

2.1 Aggregate Revenue Requirement (ARR) for 2nd Control Period FY 2018-19 to 2020-21

The Meghalaya Power Transmission Corporation Limited (MePTCL) has submitted the Petition on 30.11.2017 seeking approval for Aggregate Revenue Requirement for 2nd Control Period FY 2019-2021 and Determination of Transmission Tariff for FY 2018-19. The MePTCL has projected the revenue requirement for the control period as stated here in.

2.2 Company Profile and Performance Overview

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 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

2.3 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 in table 2.1:

Table 2.1: 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 in table 2.2:

Table 2.2: Transmission System Availability from FY 2014-15 to FY 2017-18 (Present)

Transmission System Availability	FY2013-14	FY2014-15	FY2015-16	FY2016-17	FY2017-18(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.

Table 2.3: Annual Transmission Charges

(Rs. Crore)

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

The applicant submitted its petition to the Hon'ble Commission to pass appropriate orders on the following:

- Approval of Business Plan for the Control Period of FY 2018-19 to 2020-21

- Approval of Net ARR amounting to Rs.210.61 Cr for FY 2018-19 as proposed in this Petition.
- Approval of Net ARR amounting to Rs.306.40 Cr for FY 2019-20 as proposed in this Petition.
- Approval of Net ARR amounting to Rs.347.22 Cr for FY 2020-21 as proposed in this Petition.
- 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.
- To condone any inadvertent omissions, errors & shortcomings and permit the applicant to add/change/modify/alter this filing and make further submission as required.

3. Public Hearing Process

3.1 General

Section 64 of electricity act 2003 mandates the Transmission licensee to publish the Tariff petition in an abridged format in the leading news papers inviting the objections/suggestions on the Tariff petition from the stakeholders.

In pursuance of the publication of the Tariff petition in the leading news papers, the following objections and suggestions from across the state of Meghalaya are received.

The response of the licensee on the objections and suggestions received from the stakeholders and the Commission's remarks are analyzed below

Objections/ Suggestions of Stakeholders onTransmission Petition for MYT FY 2018-19 TO 2020-21 and Determination of Tariff for FY 2018-19

M/s Byrnihat Industries Association (BIA) has filed the following objections to the petition filed by the MePTCL seeking Multi Year Tariff for Transmission Business for FY 2018-19 to FY 2020-21 and Determination of Tariff for FY 2018-19

1 Cost of Supply

Objections : M/S Byrnihat Industries Association (BIA) has stated that cost of electricity has risen exponentially over the years rendering operation of industries in the state increasingly unviable.

Response of MePTCL

MeECL and its subsidiary companies including MePTCL are going through acute financial crisis and require to bridge the gap between cost of supply and revenue. The cost of transmission business is also increasing due to increase in pay of employees, inflation etc., In the past, the transmission cost is not reflective of actual cost due to delay in availability of audited accounts of restructured new companies, After availability of authenticated information, revision of Tariff is done

every year by the Commission after thorough scrutiny for prudence & rationality and this helps the utility to come out of losses and liabilities and also in maintenance of an efficient transmission system.

Commission's views:

Response of MePTCL is noted.

2 High Transmission Charges

Objection: The objector is paying high transmission charges through open access every year though power is available at competitive rates at power exchanges. The objector is not in a position to utilize its full production capacity due to high transmission and open access charges, which have resulted in high production cost and the end products, are not marketable. The state of Meghalaya has become a power surplus state and, the consumer sought to have lower rates across all categories.

Response of MePTCL

The objector has shown percentage of increase in transmission charges taking FY 2013-14 as base year for comparison without considering the impact of increase in demand, network expansion and cost of maintenance every year. The CAGR increase in transmission charges over the last four years is around 15% and the current transmission charges and cross subsidy surcharge are as per actual past data, Any further reduction in current charges will result in precarious financial position for the utility.

Commission's Views

The response of MePTCL is noted

3 Principles to be adopted for determination of MYT for FY 2018-19 to FY 2020-21

Objection

The Petitioner has not made available the audited accounts for FY 2015-16 and provisional accounts for FY 2016-17. It is necessary that the basis for projections in the petition be made public to verify reasonableness of the projections made

Response of MePTCL

As per Regulations 4.2 & 9.1 of the MSERC MYT Regulations 2014, the Petitioner is not bound to submit the audited accounts of the previous financial year

Commission's views

The response of MePTCL is noted

Gross Fixed Assets (GFA)

Objections

- (1) The Petitioner has worked out the closing GFA considering actual capitalisation during FY 2016-17, estimated capitalization during FY 2017-18 and the projections during MYT period based on its investment plan.
- (2) Against approved capex of Rs. 739.17 Crores, the Petitioner increased expenditure of Rs.418.70 Crores during FY 2017-18. Further against the approved expenditure of Rs.99.31 Crores in FY 2014-15, Rs. 77.97 Crores in FY 2015-16 and Rs. 33.3 Crores in FY 2016-17, the Petitioner capitalized only Rs. 4 Crores in FY 2014-15, Rs.59 Crores in FY 2015-16 and Rs.4.39 Crores in FY 2016-17.
- (3) The unrealistic Capex approval results in burdening the consumers with high average cost of service.

The Commission is requested to review the costs claimed and direct the Petitioner to explain how the approved expenditure is being spent.

Response of MePTCL

At times the duration for completion of transmission works goes beyond the scheduled period and some of the works are carried forward. Major works are expected to be commissioned in the coming control period and also many new works are planned to be completed in FY 2018-19 to FY 2019-20 to FY 2020-21. The expected capex and capitalisation for Transmission business is as per business plan for FY 2018-19 to FY 2020-21 approved by the Commission in its order dated 31.10.2017.

Commission's Views

The response of MePTCL is noted.

Debt Equity Ratio

Objections:

- (i) In its Tariff Order dated 31.10.2017, the Commission erroneously included grants as equity (INR 599 Crores) while approving the business plan and the Petitioner has also erroneously included the grant as equity. This should not be allowed.
- (ii) Since there are no costs in implementation of NERPSIP works, all the cost components should not be included as equity
- (iii) The petitioner be directed to furnish the breakup of actual investments till date corresponding to NERPSIP works and other works as approved by the Commission.
- (iv) The Petitioner has projected capitalization of the entire amount towards NERPSIP assets by FY 2018-19. It is not clear how the Petitioner has projected capitalisation of such huge amount FY 2018-19 without the entire system being put to use and commissioned in FY 2018-19. The Commission is requested not to approve such capitalization as it will be an unnecessary burden on consumers.

Response of MePTCL

The Petitioner claimed equity as per MSERC Tariff regulations 2014 and has excluded the grant received for NERPSIP and other ongoing or proposed schemes and the same has been approved by the Commission in its order dated 31.10.2017 while approving business plan for FY 2018-19 to FY 2020-21. The Petitioner has, in its letter dated 29.01.2018, informed the Commission the postponement of the expected date of commissioning of works under NERPSIP in response to the Commission's letter no MSERC/MePTCL/MYT/2017/10 dated 22.01.2018.

Commission's Views

The response of MePTCL is found acceptable and Commission considers the capitalisation as proposed by the licensee.

(A) Equity base, addition during MYT and ROE

Objections:

- (i) The petitioner claimed ROE based on opening equity of INR 407.30 Crores as on 01.04.2016 as against INR 109.31 Crores approved by the Commission.

The Petitioner is seeking approval of INR 80.82 Crores, INR 99.02 Crores and INR 109.85 Crores as ROE for FY 2018-19, FY 2019-20 & FY 2020-21 respectively.

- (ii) Since the Petitioner has not made available the accounts from FY 2015-16 the Commission may allow equity based on normative basis to the tune of 30% after taking into consideration the significant amount of grant that has gone into capital investment.

Response of MePTCL

The details pertaining to funding pattern of loan, grant and equity in GFA have already been submitted into business plan and the same were approved by the Commission in business plan order dated 31.10.2017. The Petitioner while computing equity component has not considered the grant amount related to NERPSIP. Hence the ROE claim put up by the objector is denied.

Commission's Views

The response of MePTCL is noted.

(B) Interest on loan

Objections:

- (i) The Petitioner may be directed to furnish details of the complete loan schedule; interest paid and dues, if existing.
- (ii) The objector has worked out the interest on loan allowable to the Petitioner considering the loan repayment as being equal to the amount of depreciation

during the year and the rate of interest as being equal to the rate of interest being claimed by the Petitioner. Which are as follows:

Year	Rs. Crores
FY 2016-17	13.12
FY 2017-18	9.18
FY 2018-19	19.19
FY 2019-20	29.00
FY 2020-21	40.26

Response of MePTCL

The details of capital expenditure to be funded by grants and debt for FY 2018-19 to 2020-21 have been furnished in the capital investment plan of MePTCL and approved by the Commission in its order dated 31.10.2017

The MePTCL has planned to take a loan of Rs. 149.40 Crore (Rs. 209.55 – Rs. 60.15 Crore) taken by MePTCL in FY 2016-17 in FY 2017-18 to FY 2020-21 to execute additional plans of the respective financial years in line with the approved Business Plan.

Commission's views

Responses of MePTCL is noted

D. O&M Expenses

Objections:

1. It is presumed that the petitioner claimed O&M expenses based on the CERC (Terms and Conditions of Tariff) Regulations, 2014 and Regulation 69.3 of MYT Regulation
2. The Petitioner failed to furnish detailed computations towards determination of O&M norms claimed.
3. Regulation 69 of MYT Regulation provides for O&M expenses. The CERC (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2017 consider a weightage Ratio of 40:60 between CPI and WPI, which is reasonable to use.

4. In the explanation dated 05.10.2017, to the notification are “Guidelines for determination of Tariff by bidding process for procurement of power by distribution licensees” the CERC has considered 55:45 ratio of CPI and WPI for arriving at escalation rates. The objector has suggested escalation rate for determination of O&M norms raised should in no case exceed 4-38%

Response of MePTCL

1. In the petition the O&M expenses have been projected based on the methodology adopted by CERC for calculation of norms in its 2014-19 Regulations. This methodology is based on calculation of norms on the estimated business growth in terms of substation capacity, transmission line length and an inflation index, calculated based on actual increase observed in past years on account of inflation. This methodology has been adopted in many states such as West Bengal.
2. Annual O&M expenses for substation has been projected by multiplying the projected transmission capacity and O&M cost per MVA. For lines, O&M expenses have been projected by multiplying the projected transmission line length and O&M per CKM. As per this the escalation factor for O&M cost has been calculated for FY 2017-18. This escalation factor is used to project employee expenses A&G expenses and R&M expenses for the control period.
3. The petitioner has relied on compounded annual growth of O&M cost per MVA and O&M cost per circuit Km to arrive at O&M cost per MVA/circuit Km for the base year which is in line with CERC methodology for calculation in 2014-19 Regulations. In its order dated 31.10.2017 the Commission has approved the capacity addition in MVA and circuit km for the control period and the same has been considered by the petitioner to arrive at the O&M expenditure for the control period.
4. The petitioner has given reasons in detail and also methodology justifying escalation rates for O&M expenditure in its MYT petition for FY 2018-19 to FY 2020-21.

5. The current O&M cost projection for MYT control period FY 2018-19 to FY 2020-21 is for transmission utility and the CERC guidelines, mentioned by objector apply for the distribution utility.

Commission's views

The Commission considers O&M expenses admissible as per Regulation 69.3 of MSERC Regulation 2014 read with CERC Regulations 2014.

E. Interest on Working Capital

Objections:

The petitioner has claimed working capital requirement presumably based on Regulation 34.2 of MYT Regulation on normative basis. Considering the changes suggested by the objector, the working capital requirement needs to be revised. Also non-consideration of grants in GFA has an impact on the amount of maintenance spares to be incurred in the working capital requirements. The rate of interest for the purpose of calculating working capital shall be 14% as revised by the SBI.

Response of MePTCL

In claims of the objector with regard to changes in O&M cost and GFA are in fruituous and do not require consideration.

The short term lending rate for computation of interest on working capital is equal to the SBAR as on 1st April of the financial year in which the petition is filed in line with MSERC Regulations. The last modification to the SBAR at 14.05% is applicable from 05.10.2015. Hence the petitioner has used 14.05% for computing interest on working capital.

Commission' views

The response of the MePTCL is noted.

F. Provision for Bad Debts

Objection

Since there has been no audit of receivables for past years, the Commission should not allow the claim of Rs. 20.51 Crore for bad debts for the control period.

Response of MePTCL

MePTCL is facing liquidity crunch on account of low realization of transmission charges billed for MePDCL. In the MYT petition for FY 2018-19 to 2020-21, projection has been made for bad debts on the basis of average of bad debt in FY 2015-16 and FY 2016-17 amounting to Rs. 20.51 Crore during each year of the control period. If this amount is not allowed it will have huge financial impact on the utility. Further carrying forward of this amount to true-up will come as a shock to the consumer during true up. The proposed bad debt may be treated as income as and when it is received by MePTCL as no carrying cost will be levied by it.

Commission's views

Commission considers the issue as per Regulations.

G. Total allowance ARR

Objection

As per the objector's assessment of ARR the Petitioner's claim merits significant disallowance.

Response of MePTCL

The proposed ARR is strictly in accordance with the Regulations and projections are made based on past data, including statement of accounts and trends available. The difference in ARR elements are adjusted during truing up of each year.

Commission's views

Commission considers all ARR elements as per the Regulations after Prudence check.

Continuous non-compliance by petitioner

Objections:

The petitioner has not complied with the directives of the Commission in respect of the following:

1. Submission of C&AG accounts and statutory audit report for FY 2014-15

2. Submission of investment plan proposed to be implemented in the control period along with the statutory audit report for FY 2017-18
3. For FY 2014-15, the petitioner claimed employee expenses in excess of 41.65% over the approved level and is yet to submit a detailed component-wise analysis of employee expenses.

Response of MePTCL

The petitioner had stated as follows on the above objections:

1. The petitioner has already submitted audited account for FY 2014-15 in its letter no MePTCL/DT/T.21 (PT – III)/2016-17/105 dated 24.03.2017. The C&AG audit is time consuming and not under its control. The C&AG report for FY 2014-15 has been submitted in letter no. MePTCL/DT/T.21(Pt-iv)/2017-18 dated 14.09.2017 and even no dated 13.08.2017. The C&AG report for FY 2015-16 is awaited and will be submitted on its receipt.
2. It is illogical on the part of the objector to demand for statutory audit report for FY 2017-18 as the financial year is not yet over.
3. The employee expenses details for FY 2014-15 have been submitted in its letter no: MePTCL/DT/T-21/(Pt-iv)/2017-18 dated 14.09.2017 and even no. dated 13.08.2017.

Commission's views

The Commission considers the data furnished by the petitioner before ARR is finalised after prudence check.

Summary of objections by BIA:

It is relevant to mention that the Commission has conducted public hearing on the petition of the MePGCL on 08.03.2018 as scheduled. Since MeECL has made its presentation during the State advisory Committee Meeting so the Chairman asked the BIA representatives to present their views and also to submit the same in writing after the hearing, which they did as appended below.

ARR item	Points of Objections												
Transmission Tariff	Transmission Tariff has been claimed to increase by more than 100% during the 3 year period 2017-18 to 2019-20												
Annual Accounts	The Petitioner has not provided the Annual Accounts of 2015-16 and 2016-17 in the petition. It is pertinent that the basis for such projections be made available in public. The Accounts are not available even on the web-portal of Petitioner.												
Gross Fixed Assets	<ul style="list-style-type: none"> The Petitioner has considered Gross Fixed Asset based on the opening balance as on 1.4.2016 at Rs. 434.49 cr. Against an approved capex of Rs. 739.17 cr., the Petitioner has incurred an estimated expenditure of Rs. 418.70 cr. during 2017-18. The data available clearly depicts failure of the Petitioner to make timely investments towards improvement of the transmission infrastructure. <p align="center">(In Rs Crore)</p> <table border="1"> <thead> <tr> <th>FY</th> <th>Approved</th> <th>Actual Capitalisation</th> </tr> </thead> <tbody> <tr> <td>2014-15</td> <td>99.31</td> <td>4.00</td> </tr> <tr> <td>2015-16</td> <td>77.97</td> <td>59.00</td> </tr> <tr> <td>2016-17</td> <td>33.30</td> <td>4.39</td> </tr> </tbody> </table>	FY	Approved	Actual Capitalisation	2014-15	99.31	4.00	2015-16	77.97	59.00	2016-17	33.30	4.39
FY	Approved	Actual Capitalisation											
2014-15	99.31	4.00											
2015-16	77.97	59.00											
2016-17	33.30	4.39											
Debt: equity ratio	<ul style="list-style-type: none"> The Petitioner has claimed the opening debt at Rs. 94.41 cr. and opening equity base of Rs. 407.30 cr. on 1.4.2016 against an opening GFA of Rs. 434.49 cr. The Objector has no access to the Petition filed by Licensee for its Business plan approval for 2018-19 to 2020-21. However, perusal of the Petition for Business Plan of 2015-16 to 2017-18 would depict that 95% of the total capital investment in respect of the NERPSIP project is in the form of grants. The significant grant component of NERPSIP outlay is also reflected in the 'NERPSIP SANCTION ORDER' dated 1.12.2014 available on Ministry of Power's web portal. Implementing agency viz. Power Grid Corporation of India Ltd. has considered interest during construction (IDC) only on the loan component of World Bank. Since there are almost no costs to be incurred in implementation of NERPSIP works, it belies any rationale to include all these cost components as equity in the instant Petition. Petitioner has not furnished the breakup of actual investments corresponding to NERPSIP. Instead, the Petitioner has furnished the total investments planned during the MYT period. From the data provided, it can be only concluded that NERPSIP works will be completed and all the assets will be commissioned by June 2019. However, the Petitioner has projected capitalisation of entire amount towards NERPSIP assets by 2018-19. It is surprising to observe that the Petitioner has projected capitalisation of such a huge amount by 2018-19 without the entire system being put to use and commissioned by the year 2018-19. The Objector has estimated the debt:equity:grant constituents in the additional capital expenditure projected by the Petitioner. 												
Equity base and Return on equity	<ul style="list-style-type: none"> The Petitioner has claimed RoE based on an opening equity base on 1.4.16 at Rs. 407.30 cr. It is noteworthy that the Commission has approved a normative equity base of 109.31 cr. on 31.3.2015 in its Order dated 31.3.2017. The observations of the State Commission for 2014-15 in the Order dated 31.3.2017 in this regard are as below: On perusal of the Annual Accounts of the Petitioner for 2014-15, it is observed that during 2014-15, the subscribed equity capital is only Rs. 5.00 lakh. In absence of the Accounts for subsequent years, Hon'ble Commission may allow equity base on normative base to the tune of 30% after taking into account the significant amount of grant that has gone into capital investment. Since, the Petitioner has not furnished the constituent of grants in the GFA, the same may be assumed at 90%. The Commission has adopted a similar approach of allowing normative equity in earlier Orders also. 												
Interest on Loan	<ul style="list-style-type: none"> The Licensee has claimed interest cost based on the opening loan balance of Rs. 94.41 cr. as on 1.4.2016. Further, the Licensee has claimed an additional loan drawl to the tune of Rs. 209.55 cr. from 2016-17 to 2020-21. It has already been depicted in the earlier paras that the Licensee has not provided the details of capital expenditure funded by grants and by debt and has not even acknowledged the grant gone into capital investments during the period. In view of such gross inconsistencies in the submissions of the Petitioner, the Hon'ble Commission is requested to conduct a strict prudence of the capital expenditure plan of 												

ARR item	Points of Objections
	<p>the Petitioner and the funding pattern of the same.</p> <ul style="list-style-type: none"> • Petitioner must be directed to furnish the details of its overall loan portfolio, interest paid and any dues, if existing.
O&M expenses	<ul style="list-style-type: none"> • The Petitioner has claimed the Operation & Maintenance expenses purportedly based on the methodology adopted by CERC for calculation of O&M norms in 2014-19 Tariff Regulations. However, it has failed to submit the detailed computations towards determination of such O&M norms as claimed in the instant Petition. The Objector submits following points in this regard: <ul style="list-style-type: none"> • Determination of O&M norms based on past data is not true reflection of the prudent costs. • Since the Accounts are not available for 2016-17, it is hard to understand what data has been considered by the Petitioner to arrive at such norms. • It is not the actual expenses but the regulatory allowed expenses that have to be considered for arriving at such norms. • Detailed working towards computation of norms has not been provided by the Petitioner. • The Petitioner has vaguely considered the escalation rates as 13.71%, 65.19% and 14.26% for estimating the norms during MYT period. • No basis has been provided for MVA capacity and ckt. km considered for determination of norms. The Objector cannot analyse the norms since all the aforesaid data do not appear in business plan approved by the Commission. • The Tariff Regulations provide for O&M expenses as below: <p><i>"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.</i></p> <p><i>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."</i></p> • Thus, we propose an alternate approach in our Objections. • Based on the trued up data for 2013-14 to 2015-16 and escalation rate of 4.38% based on the CPI:WPI ratio of 55:45, existing O&M norms and the escalated norms may be worked out as below: [detailed workings in the Objections Statement]
Interest on Working Capital	<ul style="list-style-type: none"> • The Petitioner has claimed working capital requirements to the tune of Rs. 52.49 cr., Rs. 77.92 cr. and Rs. 89.04 cr. in 2018-19, 2019-20 and 2020-21 respectively. • Working capital requirements will change owing to <ul style="list-style-type: none"> ○ change in the O&M expenses ○ change in maintenance spares • Rate of interest for the purpose of computing working capital shall be 14% as revised by the State Bank of India.
Provision of bad debts & Earlier directives	<ul style="list-style-type: none"> • The Petitioner has claimed an amount of Rs. 20.51 cr. towards provision for bad debts in the MYT period. • There has been no audit of the receivables of past years. The Commission is requested to not allow any head under the provision of bad debts since that would be tantamount to promoting further inefficiency of the Licensee. • The Commission directed that the true up exercise without the C&AG audit report shall be interim (provisional) arrangement only subject to readjustment of revenue gap/surplus after filing of the another petition along with C&AG reports by MePTCL. Even in the instant year, we don't see any true up of past years being done based on CAG reports. • MePTCL was directed to submit its investment plan proposed to be implemented in the instant control period for approval of the Commission along with the audited accounts with statutory auditor reports for FY 2017-18. The same was not submitted. • MePTCL had claimed employee expenses for FY 2014-15 at 41.56% excess over the approved level. The Commission had directed the Licensee to submit detailed analysis of employee expenses, component wise, like Basic pay, DA, HRA and other allowances.

The General Secretary of the Greater Shillong Crematorium & Mortuary Society told that they made a written submission to the Commission under Regulation 9 (1) of the Meghalaya State Electricity Regulatory Commission (Redressal of Grievances) Regulations, 2007 and

reiterated that there should be hike in the tariff and they may be allowed to continue in the existing tariff.

The Commission thanked the members for their views and suggestions which the Commission will look into.

4. Commission's Approach

4.1 Background

This Chapter shall deal with the approach adopted by the Commission while determining the ARR for MYT Control Period FY 2018-19 to FY 2020-21 and transmission tariff for the State of Meghalaya for the year FY 2018-19. The Commission has notified MSERC (Multi Year Tariff) Regulations 2014 on 15.09.2014. These regulations are applicable for determination of tariff from 01.04.2015. These regulations shall be applicable to generating company MePGCL, transmission licensee MePTCL (including SLDC) and distribution licensee MePDCL. The truing up of previous year prior to the date of notification of these regulations shall be governed by MSERC (Terms and Conditions for Determination of Tariff) Regulations, 2011. The Commission has tried to adhere to its MYT Regulation for determination of ARR for the control period and the tariff for FY 2018-19. While deciding the ARR, the Commission has also kept in mind the provisions given in National Tariff Policy and Electricity Act 2003. The Commission has also tried to make a Balance between the interest of users of transmission system and transmission utility. The power sector in the State and in the North Eastern Region is growing and therefore it would be reasonable to consider the action plan for next three years. However, while deciding the ARR in the control period the Commission is careful to allow such projects which are either initiated, started or sanctioned through some schemes. It is being done in order to protect the interest of common man. The Commission is also concerned that there is no power interruption because of fault in transmission system or due to capacity constraints. The Validation of expenses could not be done in the absence of audited records of transmission utility up to FY 2016-17 as mandated. However, Commission has carefully examined the actual expenses and revenue of the transmission utility. Accordingly, the Commission has validated the ARR on the basis of actual expenditure for current year FY 2017-18 for six months. The Commission shall validate all expenses and revenue records in the absence of audited performance. In this chapter, the Commission shall deal with the regulations prescribed in MSERC MYT Regulations 2014. The Regulations prescribe the following:

4.2 General Guiding Principles

The Multi Year Tariff shall be based on the following elements for determination of ARR for the entire control period FY 2018-19, FY 2019-20 and FY 2020-21 & the retail tariff shall be determined for FY 2018-19.

- (a) Business plan for the control period FY 2018-19 to FY 2020-21.
- (b) Forecast ARR for the entire control period as per the business plan.
- (c) Truing up of previous years FY 2014-15, FY 2015-16, FY 2016-17 (Pending).
- (d) In accordance with regulations the Transmission Corporation and licensee has filed their petition for approval of business plan for the entire control period and tariff for the ensuing year FY 2018-19.

4.3 Business Plan

As per regulation 8, all utilities shall have to file a business plan for the control period of three financial years starting from 01.04.2018. The regulation provides that the licensee shall file, demand projection, power procurement plan, capital investment plans, financing plan and fiscal targets. It is also required that capital investment plan shall show separately ongoing projects that will be spilled over into the control period and new projects (along with justifications) that will commence in the control period but may be completed within or beyond the control period. In accordance with regulation the Commission shall only consider those investment plans which have been backed with relevant technical and commercial details.

In accordance with the regulations the licensee and the Transmission Corporation have filed business plan for FY 2018-19 to FY 2020-21 projecting various existing and new projects. The Licensee filed the capital expenditure to be spent on these projects in the entire control period. In accordance with the regulation the Commission has considered and approved the business plan in the matter of capital expenditure on the ongoing projects and for the new projects separately. In the absence of audited accounts of FY 2014-15 onwards and detailed project reports, its financial tie ups and approval from the appropriate authorities, the Commission is considering only those investment plans which have already started, up to the

period FY 2016-17. Commission has considered the additional information submitted on 29.01.2018 by the Licensee as called for by the Commission.

4.4 Specific Trajectory

Regulation 10 provides that the Commission shall stipulate a trajectory for the variables which shall include O & M expenses, transmission capacity, plant load factor, transmission losses and performance efficiency. In accordance with regulation the Commission is considering to set trajectory for entire control period on transmission losses, performance efficiency, and availability factor in the tariff order.

4.5 Truing Up

Regulation 11 provides for filing of truing up petition of previous years together with the audited accounts including audit report by C&AG. The scope of truing up shall be a comparison of the performance of the company with the approved ARR and revenue from tariff. The petition shall comprise of the following

- A comparison of audited performance of the Licensee for the previous financial year with the approved forecast for such year subject to prudence check including pass through of impact of uncontrollable factors.
- Review of compliance of directives issued by the Commission from time to time.
- Any other relevant factors.

4.5.1 Current Petition

- a) The Licensee has filed petition for approval of ARR for 2nd MYT Control Period FY 2018-19 to FY 2020-21 and determination of tariff for FY 2018-19.
- b) As per the Regulation 15 (3) of MSERC Regulations 2011 and Regulation 11(2) of MSERC MYT Regulations 2014, the Licensee shall file petition for true up for previous year performance together with audited Accounts along with tariff petition for ensuing year. The Licensee has however not filed the truing-up business for the previous year along with tariff petition for ensuing year.
- c) Commission in the Circumstances does not agree with the projections made in the petition for ARR and tariff for the ensuing year and MYT Control Period.
- d) Commission finalized the ARR and tariff for ensuing year and processed order in the absence of audited results for comparison of the projections in order to release tariff order on time.

- e) The Licensee was directed to file the petition for the truing-up of the business for FY 2013-14,2014-15 along with C & AG audit report, as the true-up of Business for FY 2013-14,2014-15 was ordered on provisional basis.

4.6 Financial Principles

Capital Cost and Capital Structure

The capital cost shall include the actual expenditure on the date of commercial operation subject to prudence check. The cost of the project should be reasonable as per the efficient technology and any delay in execution of the project causing cost and time overrun may not be approved by the Commission. Similarly, the assets not put to use shall be excluded from the capital cost. *Regulation 28 provides that capital cost of the existing and new projects shall not include any assets which have been created from any grant received from either Central or State Government which does not carry any liability of repayment for the purpose of computation of interest on loan, return on equity and depreciation.* In accordance with the Regulation the Commission has allowed the Return on Equity on the projects which are completed and do not carry assets created from grants where no repayment of liability exists. The Commission has also considered measures which are necessary for good governance while allowing return on it. The investment made prior and up to the 31st March immediately preceding the date of the notification of the Regulations shall be considered on the basis of audited accounts or approvals already granted by the Commission. In this proceeding the Commission has allowed the opening values of the assets as per the transfer schemes and allowed addition of assets for projects which has already taken up to 2016-17 after verifying the status of projects as per the information made available to the Commission. However, the Commission shall make suitable corrections as per the audited records as and when submitted.

4.7 Additional Capitalization

Regulation 29 prescribes the additional expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check and issue of completion certificate.

4.8 Debt Equity Ratio

Regulation 27 provides for debt equity ratio for projects which are declared under commercial operation. However, any grant obtained for execution of the project shall not be considered as a part of capital structure and equity should be determined accordingly. Regulation 27 also prescribes that for the purpose of determination of tariff, debt-equity ratio in the case of existing, ongoing as well as new projects commencing after the date of notification of these regulations shall be 70:30. Where equity employed is more than 30%, of the capital cost the amount of equity for the purpose of tariff shall be limited to 30% and the balance shall be treated as loan. Where actual equity employed is less than 30%, of the capital cost the actual equity employed shall be considered. The Commission may, in appropriate case, consider equity higher than 30% for the purpose of determination of tariff, where the transmission licensee is able to establish to the satisfaction of the Commission that deployment of equity more than 30% is in the interest of general public. The debt and equity amounts arrived at in accordance with regulations shall be used for calculating interest on loan and return on equity. The Commission has also taken a view that after segregation of MeECL, there are no independent financial transactions and there is apparently no change in the functioning of these Corporations as an independent entity.

4.9 Return on Equity

Regulation prescribes that Return on Equity shall be computed on the equity base determined in accordance with Regulation 31 and shall not exceed 14 %. Provided that in case of projects commissioned on or after 1-4-2010, an additional return of 0.5 % shall be allowed if such projects are completed within the time line specified in Appendix --- II of CERC (Terms and Conditions of Tariff) Regulations, 2009 (Refer Annexure-2)

- i. Provided that an additional return of 1.5 % shall be allowed if such projects are completed within the original sanctioned project cost without any cost overrun.
- ii. 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 transfer scheme dated 31.03.2012 provides amendment to the original transfer scheme of 2010 where in it is mentioned that all assets and liabilities shall stand transferred from MeECL to MePTCL as on 01.04.2012. However, the transfer value of assets and liabilities shall be regulated as per Regulation-27 for the purpose of Return on Equity.

4.10 Interest and Finance Charges on Loan Capital

Regulation 32 provides that interest shall be computed on the outstanding loans after taking into account the schedule of loan repayment, terms and conditions of loan agreement and lending rates as defined therein. The regulation provides that no interest on finance charges shall be allowed on the projects which are not completed. The Commission has in accordance with regulation provided for repayment of loans for the projects which are the interest towards Government loans as per the proposal. The interest and finance charges attributable to Capital Work in Progress shall be excluded. The transmission licensee shall make every effort to swap loans as long as it results in net benefit to the users. The costs associated with such swapping shall be borne by the beneficiaries. The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefit shared between the beneficiaries and the licensee in a ratio 50:50. MePTCL has claimed normative interest for loan capital in FY 2018-19 and the control period for transmission and SLDC. Since the Regulation provides the interest charges for outstanding loans, the Commission has considered repayment of loans to the extent of depreciation allowed and the interest has been worked out accordingly. However, MePTCL is free to file petition, if required, for claiming the interest on loan actually availed in the control period. The Commission shall consider the same at the time of truing up.

4.11 Depreciation

Regulation 33 prescribes that Depreciation expenses for the purpose of tariff determination shall be computed in the following manner:

(a) The asset value for the purpose of depreciation shall be the capital cost of the assets as admitted by the Commission where:

The opening asset's value recorded in the Balance Sheet as per the Transfer Scheme Notification shall be deemed to have been approved, subject to such modifications as may be found necessary upon audit of the accounts. If such a Balance Sheet is not audited, consumer contribution or capital subsidy/ grant etc shall be excluded from the asset value for the purpose of depreciation.

(b) For new assets, the approved/accepted cost for the asset value shall include foreign currency funding converted to equivalent rupee at the exchange rate prevalent on the date of foreign currency actually availed but not later than the date of commercial operation.

(c) Depreciation shall be calculated annually as per straight-line at the rates specified in Appendix – II of CERC (Terms and Conditions of Tariff) Regulations 2009 (Refer Annexure-II) of these regulations: Provided that land is not a depreciable asset and its cost shall be excluded from the capital cost while computing the capital cost of the asset. The salvage value of the asset shall be 10% and the depreciation shall be allowed up to a maximum of 90 % of the capital cost of the asset.

The Commission has tried to work out the assets in use on the basis of records submitted by the licensee and allowed depreciation on the completed assets only. This should be kept in a separate reserve for meeting future commitments and is to be validated at the time of truing up.

4.12 Interest on Working Capital

Regulation 34 provides calculation of interest on working capital for generation, transmission and distribution separately. For transmission licensee the working capital shall cover O & M expenses for one month, maintenance spare @ 1% of historical cost and receivable equivalent of two months of transmission charges. The rate of interest on working capital shall be SBI MCLR rate as on 01.04.2017. The Commission has followed the regulations.

4.13 Operation and Maintenance Cost:

Regulation 69 prescribes a methodology of calculating O & M expenses which shall comprise of the following components:

- (a) Employee Cost
- (b) Repairs and Maintenance
- (c) Administration and General Expenses.

Regulation prescribes that the Licensee shall submit O&M expenses budget indicating the expenditure under each head of account showing actual of the last financial year, estimates for the current year and projections for the next financial year. The norms for O&M expenses on the basis of circuit kilometres of transmission lines, transformation capacity and number of bays in substations shall be submitted for approval of the Commission.

The Commission shall verify the budget estimates and projections and allow the expenditure depending on its views about the reasonableness of the projections. Increase in O& M expenses due to natural calamities or insurgency or other factors not within its control shall be considered by the Commission. In the absence of normative set so far, the Commission was allowing actual cost of O & M in the previous years subject to correction with inflation factors. A reasonable increase for the control period is considered over the FY 2016-17, in this order.

4.14 Income Tax

Regulation 35 prescribes that Income Tax on the Licensed business of the Transmission Licensee shall be treated as expense and shall be recoverable from users through tariff. However, tax on any income other than that of its Licensed business shall not be a pass through, and it shall be payable by the Transmission Licensee itself. The income tax actually payable or paid shall be included in the ARR.

Any under recovery or over-recovery 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 auditor. Since there is no payment of Income Tax in FY 2016-17, the Commission is not allowing income tax in the ARR for 2018-19.

4.15 Calculation of ARR:

Regulation 65 prescribes that Aggregate Revenue Requirement shall comprise of the following:

- (a) Return on Equity as may be allowed
- (b) Interest on Loan capital
- (c) Operation and Maintenance expenses
- (d) Interest on Working Capital
- (e) Depreciation as may be allowed
- (f) Taxes on Income
- (g) Annual License Fee

The net annual revenue requirement of a transmission licensee shall be worked out by adjusting the following in the annual revenue requirement computed under the regulations:

- (a) Income from surcharge and additional surcharge from open access consumers if any,
- (b) Transmission and / or wheeling charges recovered from open access customers, if any
- (c) Authorized portion of Income / Revenue from other business engaged in by the Licensee for optimum utilization of assets, if any.

4.16 Norms of Operation

Regulation 70 prescribes that the norms of operation for the transmission licensee, subject to modifications thereof from time to time shall be as under:

- (a) Auxiliary Energy Consumption in the Sub-Station.

The cost of auxiliary consumption in the sub-station for the purpose of air-conditioning, lighting, and consumption in other equipment shall be borne by the transmission licensee and considered as part of Operation and Maintenance expenses under the head General and Administration Overhead.

- (b) Target Availability of the Transmission System for recovery of full transmission charges. The Normative Annual Transmission Availability Factor (NATAF) of the

Transmission System shall be 98%. The Commission has allowed 98% as availability of transmission line.

4.17 Payment of transmission charges by customers

Regulation prescribes that a transmission licensee shall be allowed to recover its net annual revenue requirement for financial year through transmission charges as one or combination of the following charges:

- (1) Transmission charges which may consist of a fixed charge, demand charge and an energy charge or a combination of these;
- (2) Connectivity charge, which shall be levied to meet the cost of connecting the user customer to the licensee's transmission system;
- (3) Parallel operation charge shall be levied for Captive Power Plant if the plant is connected with the grid.
- (4) Transmission charges shall be calculated on a monthly basis.
- (5) Transmission charges shall be recovered from distribution licensees and open access customers.

The Commission has allowed recovery of annual transmission charges from single distribution licensee in the State in FY 2018-19. The charges to be paid for use of transmission system by open access consumers shall be determined for FY 2018-19.

4.18 Transmission losses

Regulation says that the Commission shall fix the norm for transmission losses based on the loss reduction plan provided by the licensee. The Commission shall make a periodical review of the reduction in transmission losses with reference to the norms fixed by it. In the case of failure to achieve the target for loss reduction, the Commission will not allow the excess over the norm as a pass through. Only Transmission Losses fixed as provided for in clause (1) above shall be debited to energy account of customers of the transmission system. The Commission find difficulty in allowing transmission losses without energy audit at all interconnecting points in intra-state transmission lines. The transmission losses at north east grid are more or less same as allowed last year. Accordingly, the Commission is allowing transmission losses as allowed last year subject to verification from SLDC. On the basis of actual records, provision of regulations, practices followed by this

Commission in previous year, the Commission has determined the annual fixed charges for transmission licensee for FY 2018-19.

4.19 Open access charges

The Commission has determined the open access charges as per the regulations for open access for FY 2018-19. The charges for open access need to be collected as per regulations and no open access shall be permitted for defaulters.

5. Analysis of Aggregate Revenue Requirement (ARR) for the 2nd Control period FY 2018-19 to FY 2020-21 and determination of Transmission Tariff for FY 2018-2019

5.1 Methodology for filing of ARR of FY 2018-19 to FY 2020-21

In accordance with the provisions of the MYT Regulations, 2014, MePTCL submitted the ARR for the second control period FY 2018-19 to FY 2020-21 based on restructured segregated provisional accounts and the transfer scheme amended from time to time. MePTCL submits that, Transmission Service Agreement (TSA) for transmission of power to MePDCL has been executed on 08th August 2013 and power under TSA is being supplied on cost plus basis. Therefore, MePTCL submits that the tariff for MePTCL be determined on cost plus basis. SLDC is a Strategic Business Unit (SBU) of MePTCL and does not maintain separate accounts. Therefore all assets, liabilities, expenditures etc. of SLDC are reflected in the accounts of MePTCL. However, SLDC being an independently functioning entity shall file separate ARR and tariff in accordance with the provisions of MSERC regulations and provisions of Electricity Act 2003. Thus, in order to arrive at the tariff for MePTCL, the ARR of SLDC is deducted from total projected costs of MePTCL, and costs of SLDC shared by MePGCL equally.

For computation of the Annual Revenue Requirement, Annual Fixed Cost for the transmission system ARR needs to be separately computed. The revenues from other sources such as surcharge from open access consumers, wheeling charges and other authorized income are required to be adjusted in the ARR. MePTCL has submitted the ARR petition under section 62 of the Act and Section 65 of MYT Regulations, 2014 for control period of FY 2018-19 to FY 2020-21.

5.2 ARR for Control Period of FY 2018-19 to FY2020-21

Pursuant to Meghalaya Power Sector Reforms Transfer Scheme 2010 (as amended in 2012), the Assets and Liabilities including rights, obligations and contingencies are transferred and vested in MePTCL from MeECL as on 1.4.2012. Transfer of Assets and Liabilities to MePTCL is based on the provisional Accounts of MeECL for FY

2011-12. The segregated annual accounts post restructuring and unbundling for FY 2012-13 are finalized. The accounts for the holding company and its subsidiaries have been segregated by appropriating the Assets, Properties, Liabilities, Expenditures, and Obligations etc. as attributable to the respective activities. The Assets and liabilities of individual functions i.e. Generation, Transmission and Distribution were maintained by erstwhile MeSEB and later by MeECL, and appropriation of common items to respective companies has been done by adopting relevant basis/ methodology.

In accordance with the provisions of the MYT Regulations, 2014, the MePTCL submitted 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 basis 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.

5.3 Transmission Network details

MePTCL has a total transmission network of 226 Circuit Kilometres of 220 KV level and 991 Circuit Kilometres of 132 KV voltage level. Recently MePTCL has commissioned Misa-Killing 400 kV double circuit line and Single Circuit Agia-Nagalbibra line. The detail of the network is provided in Table 5.1:

Table 5.1: Details of Transmission Lines

Transmission Line	Single Circuit		Double Circuit	
	No	Circuit KM	No	Circuit KM
400 KV	-	-	1	2.214
220 KV	-	-	1	113.42
132 KV	40	560.044	-	217.760

Further MePTCL has given the details of substations and capacity which are reproduced in the Table 5.2:

Table 5.2: Details of Sub-stations

Sub stations	No	Capacity (MVA)
400/220 KV	1	630
220/132 KV	3	520
132/33 KV	13	470
132/33/11 KV	1	10
132/11 KV	1	20
	2	21

Table 5.3: Details of Transmission Lines as on 31.03.2017**(A) Transmission Lines**

Sl. No	Name of the line	No. of Circuit	Total Line length (in KM)	Year of Commissioning
A	400KV Lines:	D/C	2.214	03.03.2015 & 22.02.2015
			2.214	
B.	220KV Lines			
1	Misa-Byrnihat	D/C	113.42	20.04.2010
	Total Line Length (220 KVA):	-	113.42	-
C	132KV Lines:			
1	132KV NEHU (Belfonte)- Khiliehriat- I	S/C	52.564	1996/1991/1996
2	132KV Stage –I- Mawlai line	S/C	12.051	1964
3	132KV stage-I-Umiam substation line	S/C	5.062	1991& Dec'2017
4	132KV Umiam substation NEHU line	S/C	6.203	1991& Dec'2017
5	132KV Stage-III- Stage-IV line-I	S/C	8.018	1991
6	132KV Stage –I-stage-II line	S/C	3.0000	1969
7	132KV Nangalbibra-Tura Line	S/C	68.706	1986
8	132KV Khliehriat-Lumshnong S/s Line	S/C	23.800	1971&2005
9	132KV Lumshnong-Ratacherra(Badarpur) line	S/C	24.561	1971&1983
10	132V NEHU (Belfonte)- Mawlai substation line(Tie Line)	S/C	5.627	1996
11	132KV Nehusybstation –NEIGRIHMS Line	S/C	6.725	1991&2005
12	132KV NEIGRIHMS –Khliehriat Line	S/C	62.825	1991&2005
13	132KV Lyngkien to tapping point of LILO of Nogstoin LILO at Mawohlang substation	S/C	6.510	1981
14	132KV Mawphlang-Nongstoin Line	S/C	53.597	1981
15	132KV Nongstoin –Nangalbibra Line	S/C	57.134	1981
16	132KV Mawngap- Chera Line	S/C	31.072	1978
17	132KV Stage-III-Stage-IV(second circuit) line-II	S/C	9.690	14.04.2009
18	132KV Khliehriat-PGCIL, Deinshynrum Line-II	S/C	5.350	07.09.2006

Sl. No	Name of the line	No. of Circuit	Total Line length (in KM)	Year of Commissioning
19	132kV Lumshnong to M/s CMCL	S/C	0.300	2002
20	132kV Lumshnong to M/s CMCL	S/C	3.270	15.02.2006
21	132kV Lumshnong to M/s JUD Cements	S/C	1.871	28.01.2009
22	132kV Lumshnong to M/s Hill Cements	S/C	5.500	Nov'2009
23	132kV Lumshnong to Adhunik Cements	S/C	3.636	February' 2010
24	132kV EPIP-I to M/s Shyam century Ferro Alloys Ltd	S/C	0.250	15.12.2001
25	132kV EPIP-II to M/s TrishulHitechPvt. Ltd	S/C	0.442	07.06.2002
26	132kV EPIP-II to M/s Nalari Ltd	S/C	0.120	26.05.2003
27	132kV EPIP-I to M/s Maithan Smelters(P) Ltd	S/C	0.440	24.06.2003
28	132kV EPIP-I to M/s Greystonelspat Ltd	S/C	0.440	07.08.2004
29	132kV line tapping to M/s Nezone Industries Ltd	S/C	0.320	30.09.2004
30	132kV EPIP-I to M/s Sai Prakash Ltd	S/C	4.440	15.05.2006
31	132kV EPIP-I to M/s Adhunik Meghalaya Steels(P)Ltd	S/C	0.090	2004
32	132kV EPIP-I to M/s Meghalaya CrbideLtd	S/C	0.270	2003
33	132kV EPIP-II to M/s Meghalaya Sovalspat Alloys pvtLtd	S/C	0.070	2004
34	132kV linr from Umiam substation to M/s RNB Cemenyts Ltd	S/C	0.320	05.04.2012
35	132kV line from Tapping point of 132kV Leshkakhliehriat line to M/s GVIL	S/C	2.180	31.01.2012
36	132kV line from Nangalbibra to Mendipathar	S/C	62.870	06.08.2013
37	132kV line from Mendipathar to Agia	S/C	29.030	06.08.2013
38	132kV S/C line from Lumshnong to M/s MPL	S/C	0.300	
39	132kV S/C line from New Umtru HEP to 132 KV EPIP-II S/s	S/C	1.070	25.03.2017
40	132kV S/C line from New Umtru HEP to Old Umtru HEP	S/C	0.360	25.03.2017
	Total Line Length (132kV)	S/C	560.044	

Sl.No	Name of the Line	No. of Circuit	Total Line length (in km)	Year of Commissioning
1	132kV Umtru-EPIP –II Line	D/C	0.700	2007
2	132kV EPIP –I EPIP –II Line	D/C	3.030	2003
3	132kV Mawlai –Mawngap Line	D/C	11.070	1977
4	132kV NEHU-NEHU(Belfonte)line	D/C	2.230	1996
5	132kV Satge-1 P/S- Stage-III P/S line	D/C	17.539	1978
6	132kV Stage-III P/S –Umtru P/S Line	D/C	41.110	1964

7	132kV Umtru P/S –Bashista (Kahhelipara) line	D/C	11.683	1964
8	132kV Stage -1V –Umtru P.S. Line	D/C	29.860	1996(Meghalaya Portion) 2007 (Assam portion)& 25.02.2010
9	132kV Umtru P.S –Sarusajai line	D/C	17.720	1996(Meghalaya Portion) 2007 (Assam portion)& 25.02.2010
10	132kV Leshka H.E.P –Khliehriat Line	D/C	26.470	Jan’ 2010
11	132kV Killing –EPIP –II Line	D/C	10.265	27.12.2010
12	132kV Stage-I Power station to Mawngap line	D/C	33.072	27.12.2011
13	132kV Lumshnong to M/S Hill Cements &Adhunik Cements	D/C	3.810	November’09
14	132kV EPIP-I to M/s Greystonelspat Ltd	D/C	0.26	07.08.2004
15	132kV EPIP-1 to M/s Sai Prakash Ltd	D/C	3.004	15.05.2006
16	132kV EPIP-I to M/s Adhunik Meghalaya Steels (P) Ltd	D/C	0.002	-
17	132kV EPIP-II to M/s Meghalaya Sovaispat Alloys Pvt.Ltd	D/C	0.28	-
18	LILO of 132kV Mawlai-Nangalbibra line at Mawphlang substation	D/C	2.68	15.12.2012
19	LILO of 132kV Agia-Nangalbibra line at Mendipathar substation	D/C	2.285	22.12.2015
20	LILO of 132kV NEHU –Khilehriat line at Mustem substation	D/C	0.55	20.11.2015
21	132kV S/C line from New umtru HEP to 132KV EPIP –II S/s & Old Umtru	D/C	0.14	25.03.2017
	Total Line Length (132kV)	D/C	217.760	

Name of the Transmission Licensee: MEGHALAYA POWER Transmission Corporation Limited.

Table 5.4 : Details of SUB-STATIONS (AS ON 31.03.2017)

(B) Sub- stations

Sl. No	Name of the Sub station	Voltage Ratio	Capacity (MVA)	No. of Transformer	Total Capacity	Year of commissioning
A	400/220 kV					
1	Killing	400/200kV	315	2	630	03.03.2013 & finally commissioned on 22.02.2015
	Total Capacity			2	630	
B	220/ 132kV					
1	Sarusajai	220/132kV	100	1	100	June’2005
2	Killing	220/132kV	160	2	320	29.01.2011

Sl. No	Name of the Sub station	Voltage Ratio	Capacity (MVA)	No. of Transformer	Total Capacity	Year of commissioning
3	Agia	220/132kV	100	1	100	25.07.2013
				4	520	
	Total Capacity					
C	132/33 KV & 132/33/11 KV & 132/11 KV					
1	Mawlai	132/33kV	20	3	60	1965
2	NEHU	132/33kV	20	2	40	1996
3	3	132/33kV	10	2	20	2005
4	Khliehriat	132/33kV	20	2	40	1967 (earlier 3 X 3.5 MVA). 20 MVA transformer installed in 2002 & second 20 MVA transformer installed in 05-07-2006
5	Lumshnong	132/33/11 kV	10	1	10	2004
6	Cherra	132/33kV	12.5	1	12.5	1978
7	Nongstoin	132/33kV	20	1	20	03.06.2016
8	Umiam	132/33kV	20	2	40	16.06.2008 & 16.02.2012
9	Rongkhon	132/33kV	20	1	20	5 MVA augmented to 20 MVA on 04.10.2004
		132/33kV	5	2	10	1987
		132/33kV	0	0	0	Dec'2009
		132/33kV	20	1	20	20.10.2012
10	Nangalbibra	132/33kV	5	1	5	29.08.2016
		132/33kV	12.5	1	12.5	28.09.2016
11	EPIP -1 (Rajabagan)	132/33kV	20	2	40	02.09.2003&13.04.2004
12	EPIP- 11 (Norbong0	132/33kV	50	1	50	01.02.2007
		132/33kV	0	0	0	12.10.2007
13	Mawphlang (Mawngap)	132/33kV	20	2	40	23.12.2011 & 20.02.2012
14	Mustem	132/33kV	20	2	40	20.11.2015
15	Mendipathar	132/33kV	20	1	20	22.12.2015
	Total Capacity(132/33KV)	132/33kV		28	500	
	Grand Total Capacity (A+B+C)	132/33kV		34	1650	

5.4 Normative Annual Transmission Availability Factor:

The Regulation 70.3 of the MYT Regulations, 2014, provides the norms of operation of MePTCL. The relevant regulation is reproduced below for ready reference: Target Availability of the Transmission System for recovery of full transmission charges. The Normative Annual Transmission Availability Factor (NATAF) of the Transmission System shall be 98%. Based on the said regulation, the Normative Annual Transmission Availability Factor has been considered at 98%.

5.5 Transmission Loss Trajectory

It is submitted that majority of transmission lines and grid substations of MePTCL are utilized for transmission within the state operate at 132 KV level and are very old. In spite of significant capacity addition in last few years, there is still a substantial need for replacement and up gradation of assets to achieve loss reduction. At the same time substantial network addition is also required to support load growth and to ensure quality and reliable transmission of power within the state. The present transmission network is overloaded and has deteriorated over time, which is the main cause for technical losses. Moreover, transmission at 132 KV network leads to higher line losses as compared to transmission at higher voltage levels. The inhospitable terrain and remote load centres also create hurdles in adequate maintenance of transmission network, leading to higher losses. Based on internal Energy Audit conducted by the Energy Management Cell the average Transmission Losses for the period of November 2013 to October 2014 have been determined to be 5.51%. Therefore MePTCL currently estimates the loss level for FY 2014-15 as 5.51% only.

As the metering of transmission network needs to be upgraded in accordance with applicable Regulations/ Guidelines, MePTCL has taken up a project for replacement of existing interface meters with ABT meters and establishment of Central Data Centre for monitoring and energy audit. As the currently installed meters are old and of lower accuracy class, it is difficult to identify the area-wise, network asset wise or voltage level wise losses within the transmission system. Therefore MePTCL is currently not in a position to project the Transmission loss reduction trajectory

during the first Control Period. MePTCL proposes that currently established level of losses be approved for the first Control Period, as highlighted in table 5.5:

Table 5.5: Transmission Loss Trajectory

Particular	FY 2014-15	FY 2015-16	FY2016-17	FY 2017-18
Transmission Loss (%)	5.51	5.39	5.18	4.67

MePTCL has embarked on a path of accelerated renovation, upgradation of network assets and assessment of loss reduction through various schemes which will aid in reduction of losses as well as maintain reliable power supply. Details of these schemes have been provided in the Capital Investment section of Business Plan.

Commission Analysis:

The MePTCL has stated that the transmission loss was at 5.51% to 4.67 % during the period FY 2013-14 to FY 2017-18. In view of the accelerated renovation and up gradation of the Network contemplated during the control period FY 2018-19 to FY 2020-21 there is a scope to reduce Transmission losses. However the Commission is not satisfied with the calculations and therefore at this stage without proper energy audit the present level of losses are continued to be allowed @ 4%. Since the level of losses in the transmission plays an important role while determining the open access charges etc., the projected transmission loss during the control period at 4% found to be acceptable.

Thus the commission approves intra state transmission loss at 4% for second control period as proposed.

5.6 Gross Fixed Assets for Control period

Petitioner’s Submission

MePTCL has projected GFA from the FY 2016-17 to FY 2020-21 and requested to approve the same as shown in the Table.

Table 5.6: Gross Fixed Assets Projected for control period

Particulars	(Rs. Crore)				
	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
Additional 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	1364.92	1474.84	1867.59

Commission's Analysis

MePTCL has commenced the maintenance of separate Books from FY 2013-14 onwards after restructuring of MeSEB. The opening GFA as per the books as on 01.04.2013 was Rs. 222.47 Crores. The GFA as on 31.03.2015 arrived at Rs. 364.36 Crores as shown in the provisional statements of Accounts. MePTCL has not filed true up petition for FY 2015-16 and FY 2016-17 along with audited results.

The GFA projected for the FY 2016-17 at Rs. 438.82 Crores is found to be not correct as could be verified with the provisional accounts of 2015-16; The GFA as on 31.03.2016 is Rs. 422.95 Crores. The projections made for the MYT Control Period FY 2018-19, FY 2019-20, FY 2020-21 are to be validated with reference to the Un-Audited Actual performance. The Audited Accounts for FY 2013-14, FY 2014-15 (Provisional) were submitted in the past. Commission had tried down on provisional basis. Commission adopted un-audited performance to arrive at the capital cost for processing of ARR for 2nd MYT Control Period FY 2018-19, FY 2019-20, FY 2020-21. The GFA details reads as per the un-audited accounts as detailed 5.7.

Table 5. 7: GFA Computed as per the Statement of Accounts

GFA	(Rs. Crores)			
	01.04.2013(Audited)	01.04.2014(Provisional True up)	01.04.2015(Audited)	01.04.2016Provisional
Opening Balance	222.47	359.75	364.36	422.95
Additions	138.66	4.60	58.59	4.35
Retirement	1.37	-	-	-
Closing GFA	359.75	364.36	422.95	427.30

The projected capitalization during FY 2018-19 at Rs. 784.07 Crores may not be possible in view of the fact that the funding tie up has yet to be taken up, as per the business plan petition and no Government grants are projected in the investment plan. Commission has raised a query on this abnormality. MePTCL has stated in their letter dt.29.01.2018, the works execution against NERPSIP, is now proposed to be completed by FY 2019-20. Thus Commission considers the GFA and additions detailed in the table 5.8 as approved in the Business plan for the control period.

**Table 5.8: GFA approved for FY 2018-19 to FY 2020-21
(Rs. Crore)**

Particulars	FY2016-17	FY2017-18	FY2018-19	FY2019-20	FY2020-21
Opening GFA	422.95	427.30	567.32	740.09	1449.67
Additional during the year	4.35	140.03	172.76	709.58	390.14
Retirements during the year	-	-	-	-	-
Closing GFA	427.30	567.33	740.09	1449.67	1839.81

Commission approves the GFA for the Control Period as depicted in the above Table.

5.7 Return on Equity:-

Petitioner's Submission

MePTCL has projected Return on Equity for the MYT Control period FY 2018-19, FY 2019-20 and FY 2020-21 as per the Table 5.9.

Table5.9:Return on Equity Computation

(Rs. Crores)

Sl. No	Particulars	FY 2016-17(Provisional)	FY 2017-18(Estimated)	FY 2018-19(Projected)	FY 2019-20(Projected)	FY 2020-21(Projected)
1	Opening Equity	407.3	421.19	463.80	690.83	723.80
2	Equity Added during the year		106.92	227.03	145.66	141.90
3	30 % of GFA added each year		42.61	235.22	32.98	117.83
4	Addition of Equity (Lower of A & B)	13.89	42.61	227.03	32.98	117.83
5	Closing Equity	421.19	463.80	690.83	723.80	841.63
6	Closing Equity	414.25	442.49	577.31	707.32	782.72
7	RoE (%)	14%	14%	14%	14%	14%
8	Return on Equity (in Rs.Crore)	57.99	61.95	80.82	99.02	109.58

Commission's Analysis

Commission had considered in the Review Orders dated 27.03.2017 the closing Equity capital at Rs. 109.31 Crore for true up of the FY 2014-15 provisionally subject to correction on filing of the petition for final true up along with C & AG audit report. The Licensee has yet to file true-up petition for FY 2013-14 & FY 2014-15 together with C & AG audit report. The Licensee has projected Equity addition during the FY 2017-18 to FY 2020-21 at Rs. 106.92 Crore, Rs. 227.03 Crore, Rs 145.66 Crore and Rs.141.90 Crore respectively for which the details are not made available. Commission considers the opening Equity Capital for processing of MYT ARR by adopting Closing equity Capital of FY 2014-15 for arriving at opening balance for FY 2018-19 with the additions filed for FY 2015-16 and FY 2016-17 (Estimated) and projection for FY 2017-18 in the MYT petition filed for 2nd Control Period FY 2018-19 to FY 2020-21.

As per Regulation 31 of MYT Regulations 2014 Return on equity shall be computed on equity base determined in accordance with Regulation 27 and shall not exceed 14%.

The Regulation 27 specifies with regard to Debt Equity Ratio that any grant obtained for execution of the projects shall not be considered as part of Capital Structure for the purpose of Debt equity Ratio.

Regulation 28.10 of MYT Regulations 2014 with regard to Capital Cost and Capital structure reads that any grant received from the centre or state government or any statutory body authority for execution of the project which does not carry any liability of repayment shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation.

As per the provisional Accounts submitted by the Licensee for the FY 2016-17, the grants and subsidies vide Note 10 shown at Rs. 29.85 Crore. Commission had adopted closing Equity at Rs. 109.31 Crore for the FY 2014-15 (Provisional) in the Review orders dated 27.03.2017 for provisional true up of FY 2014-15. The additions as projected by the MePTCL for the FY 2015-16 to FY 2020-21 is more or less matching as per the approved business plan for the control period, and as proposed

revised Capitalisation for FY 2018-19 in the additional data / information furnished in Licensee’s letter dated 29-01-2018. Commission observed that NERPSIP works were to be executed with 95% grant from GOI and 5% funding from state Govt. The Project cost has been shown as Rs.599 Cr. in the 1st MYT Order for FY 2015-16 to FY 2017-18, where as a meagre amount of Rs. 71.19 Cr. is shown as grant for implementation of Capital investment at Rs.71.19 Crores for the Control period for FY 2018-19 – FY 2020-21, in the Business Plan.

However, Commission considering the fact that Govt. grant may be made available during the course of project execution in the control period FY 2018-19 to FY 2020-21. The projected grants available at Rs.29.85 Cr. in the provisional Accounts for FY 2016-17 is adjusted from the assets proposed for capitalization shown during the control period for the purpose of Return on Equity as per the Reg.27 and Reg.28.10 of MSERC Regulations 2014, as detailed in the table 5.10.

Table 5. 10: Approved Return on Equity for control period

(Rs. Crore)				
Sl. No	Particulars	FY2018-19	FY2019-20	FY2020-21
1	Opening Equity 30% of GFA	170.25	222.08	434.95
2	Additions during the year 30% GFA	51.83	212.87	117.04
3	Closing Equity	222.08	434.95	551.99
4	Average Equity	196.16	328.52	493.47
5	Less: Grants	29.85	29.85	29.85
6	Net Equity	166.31	298.66	463.62
7	Return on Equity at 14 %	23.28	41.81	64.91

Commission approves Return On Equity for the Control period FY 2018-19, FY 2019-20 and FY 2020-21 at Rs. 23.28Crore, Rs41.81 Crore. Rs. 64.91 Crore respectively.

5.8 Interest and Financial Charges on Loan Capital

Licensee’s Submission

MePTCL has projected Interest and Finance charges for 2nd MYT Control period FY 2018-19, FY 2019-20 and FY 2020-21 based on the loans schedule in the format-7 at Rs. 11.27 Crore, Rs. 13.57 Crore and Rs. 16.93 Crore respectively.

Table 5.11: Interest and Finance Charges (Projected) for control period

Sl. No	Particulars	FY 2016-17(Provisional)	FY 2017-18(Estimated)	FY 2018-19(Projected)	FY 2019-20(Projected)	FY 2020-21(Projected)
1	Opening Balance	94.41	102.87	107.00	121.92	153.30
2	Addition During the Year	60.15	16.64	27.87	44.34	60.55
3	Repayment during the year	51.69	12.52	12.96	12.96	12.96
4	Closing Balance	102.87	107.00	121.92	153.30	200.89
5	Average Interest Rate	11.27	10.59	10.24	9.86	9.56
6	Interest Payable	11.12	11.12	11.72	13.57	16.83
7	Add: Finance Charge and MeECL Apportioned	3.47				
8	Interest and Finance Charges	14.59	11.12	11.72	13.57	16.93

Commission's Analysis

Interest and Finance Charges for the capital loans obtained shall be allowed in the ARR as per the Regulation 32 of MSERC MYT Regulations 2014.

The Loan schedule in the Format-7 projected for the MYT Control Period FY 2018-19, FY 2019-20 and FY 2020-21 is as depicted in the table 5.12.

Table 5.12: Schedule of Capital Loans projected for the control period

(Rs. Core)				
Sl. No.	Source of Loan with Rate of Interest	FY2018-19	FY2019-20	FY2020-21
1	11.0% REC (for Keling-Byrnihat) Opening Balance	5.71	5.07	4.44
	Additions during the year	-	-	-
	Repayment	0.63	0.63	0.63
	Closing Balance	5.08	4.44	3.81
	Average Loan	5.40	4.76	4.13
	Interest Charges	0.59	0.52	0.45
2	11.75% loan advance from Holding Corporation Opening Balance	46.21	33.89	21.57
	Additions during the year	-	-	-
	Repayment	12.32	12.32	12.32
	Closing Balance	33.89	21.57	9.25
	Average Loan	40.05	27.73	15.41
	Interest Charges	4.71	3.26	1.81
3	State Government Loan-Opening Balance at 9.3%	55.08	82.95	127.27
	Additions during the year	27.87	44.34	60.55
	Closing Balance	82.95	127.29	187.84
	Average Loan	69.02	105.12	157.56
	Interest Charges	6.43	7.79	14.67
	Total Interest Charges for Control Period	11.72	13.57	16.93

The Licensee has not furnished the purpose for which Holding Corporation Loan advance is shown. Similarly the purpose of projected loan drawal from State Government is not mentioned in the petition.

The Petitioner has not furnished details of loan agreement documents, MOU etc., along with petition. The Interest Claimed for loan advance from Holding Corporation and state Govt. Loan is not considered. The interest cost is allowed as per the Regulation 32 in the table 5.13.

Table 5.13: Approved Interest on Loans

(Rs. Crore)				
Sl. No	Source of loan with Rate of Interest	FY2018-19	FY2019-20	FY2020-21
1	11.0% REC (for Keling Byrnihat) Opening Balance	5.71	5.07	4.44
2	Additions during the year	-	-	-
3	Repayment	0.63	0.63	0.63
4	Closing Balance	5.08	4.44	3.81
5	Average Loan	5.40	4.76	4.13
6	Interest Charges	0.59	0.52	0.45

Commission approves interest charges at Rs. 0.59 Crore, Rs. 0.52 Crore. Rs 0.45Crore for the Control Period FY 2018-19, FY 2019-20 and FY 2020-21 respectively.

5.9 O & M Expenses

Petitioner's Submission

MePTCL has submitted that the O & M expenditure has been projected based on the methodology adopted by CERC for calculation of O & M norms in FY 2014 to 2019 Regulations. MePTCL has submitted that O & M Cost per MVA and cost per CKM has been calculated for the past years. 70% weightage is allocated for S.S expenses and 30 % weightage has been allocated for Transmission Lines. The base line actual expenses for three years ended in FY 2016-17 is considered and projected for the Control Period on the basis of CAGR of the actual expenses after accounting for 10% margin in line with Methodology prescribed in CERC Regulations to mitigate the risks of inflation in future fiscal years.

The petitioner has projected the O & M expenses for the Control Period computed on the basis of network details in the Table 5.14 including MeECL costs.

Table 5.14: Transmission Network data, Projected for control period

Sl.No	Particulars	FY 2016-17(Provisional)	FY 2017-18(Estimated)	FY 2018-19(Projected)	FY 2019-20(Projected)	FY 2020-21(Projected)
1	O & M Cost / MVA Rs.in Cr.	0.030	0.032	0.035	0.038	0.041
2	O & M Cost/CKM Rs.Cr.	0.017	0.019	0.021	0.023	0.025
3	Business Growth					
4	Transmission Capacity (MVA)	1650	1760	1785	2855	2895
5	Average length of Lines (CKM)	1226.83	1268	1412	1890	2149

Table 5.15: O&M Expenses Projected

	(Rs.Crore)				
	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
	87.25	80.83	91.91	151.83	173.48

Commission's Analysis

The O & M Expenses shall mean the total of the expenditure under the following heads, as per the MYT Regulation 69.4 of 2014.

- a) Employees Cost
- b) Repairs and Maintenance
- c) Administration and General Expenses

The Regulation 69.3 Stipulates submission of Circuit Kms of Transmission lines, transformation Capacity and number of bays in the sub-station for approval of the Commission. The Commission shall verify the Budget estimates and Projections and allow the expenditure depending on its views about the reasonableness of the projections as specified in the Regulation 69.4.

The petitioner (MePTCL) has been maintaining the transmission business separately from FY 2013-14 after the Restructuring process notified by the Govt. of Meghalaya. The Actual O & M expenses for the FY 2013-14 shall be considered for arriving at the basis for growth to be computed year on year for projections for MYT Control Period FY 2018-19 to FY 2020-21.

Table 5.16: Actual O&M expenses as per Statement of Accounts

(Rs.Crore)

Sl.No	Particulars	FY 2013-14(Audited)	FY 2014-15(Provisional)	FY 2015-16(Provisional)
1	O&M Expenses	49.54	54.19	59.21

Whereas the MePTCL has shown the O & M expenses for FY 2016-17 (Provisional) at Rs. 87.25 Crore which includes Rs.17.03 Crore towards Bad Debts against wheeling charges of the MePDCL (not to be considered). Thus Actual O & M expenses reads at Rs.70.22 Crore for FY 2016-17 which is 22.48 % excess over FY 2015-16 (un-audited), found to be exorbitant. Licensee has not furnished reasons for abnormal Projection for FY 2019-20 at Rs. 151.83Cr over FY 2018-19 Rs.91.91 Cr (65.19%).

MePTCL has stated that O&M Expenses are computed based on CERC norms.

The Licensee has computed and projected the O & M expenses assuming the Provisional figures for FY 2016-17, which are not audited. The 10 % margin in line with the methodology assumed by the Licensee has no basis for subsequent year's growth. While CPI inflation notified by Govt. of India for FY 2016-17 over FY 2015-16 works out to be 3.33 %. The Methodology suggested by Licensee in the petition is not as per the CERC Regulations 2014.

Licensee has stated that 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 lines. These weightages stated to have been allocated out of the actual expenses incurred for the three financial year period ended 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.

As per the CERC Notification dated 21.02.2014, the following normative O&M expenses shall be admissible for the Transmission system (Reg.29 (3) (a)).

Norms for Sub-Stations (in Rs. Lakhs per bay)	FY 2014- 15	FY 2015- 16	FY2016- 17	FY2017- 18	FY2018- 19	FY2019- 20
400 KV	60.30	62.30	64.37	66.51	68.71	-
220 KV	42.21	43.61	45.06	46.55	48.10	-
132 Kv& below	30.15	31.15	32.18	33.25	34.36	-
Norms for Transmission Lines (Rs. Lakhs per KM)						
A. Single Circuit						
(i)Single Circuit(Bundled conductor with Six or more Sub Conductors)	0.707	0.731	0.755	0.780	0.806	-
Line with Conductor Six or more Sub conductors	-	-	-	-	-	-
(ii)With four Sub Conductors	0.606	0.627	0.647	0.669	0.691	-
(iii)With Twin Triple Conductors	0.404	0.418	0.432	0.446	0.461	-
(iv)With Single Sub Conductor	0.202	0.209	0.216	0.223	0.230	-
B. Double Circuit lines						
(i) With four or more conductors	1.062	1.097	1.133	1.171	1.210	-
(ii) Twin Triple Conductors	0.707	0.731	0.755	0.780	0.806	-
(iii) Single Conductor	0.303	0.313	0.324	0.334	0.346	-

Reg. 29(3)(b): The total allowable O&M expenses for the transmission system shall be calculated by multiplying the number of bays and kms of line length with applicable norms for the O&M expenses per bay and per km respectively.

Net Work Details	Work in progress Addition proposed					Total Network
	Quantity	FY2017-18	FY2018-19	FY2019-20	FY2020-21	
A. Transmission lines in kms as on 31.3.2017						
a). 400 Kv DC	2.214 Kms	-	-	-	-	2.214
b) 220 Kv DC	113.42 Kms				224.00	337.42
c) 132 kv SC	560.044 Kms	92.15				652.194
d) 132 Kv DC	217.760 Kms	46.77		216		480.53
B.Sub Stations no. of bays						
a) 400/200 kv –	2					2
b) 220/132 kv-	4			4		8
c) 132/33 kv	28	10		7		45

The Transmission network data furnished in the petition vide page no.13&14 needs to be validated in terms of No. of bays in the 400/220/132 kv Sub stations and kms of Length of 400/220/132 kv D/C S/C lines for computation of O&M expenses as per CERC norms.

Commission considers the computation of O&M expenses based on the network data furnished in the petition Annexure A, with the applicable rates notified by CERC in the Regulations.2014.

Table 5. 17: Computation of O&M Expenses as per CERC norms

Net work data Furnished as on 31.3.2017 in the petition-A and Projected addition for FY 2017-18 and FY 2018-19.		Rates as per CERC Regulations Rs. in Lakhs/KM	O&M Expenses admissible for FY 2018-19(Rs. lakhs)
400 kv Lines	DC 2.214 kms	1.210	Rs.2.679
220 kv Lines	DC 113.42 kms	1.210	Rs. 137.238
132 Kv lines	DC 264.53 kms	1.210	Rs. 320.081
132 Kv Lines	SC 652.194 kms	0.806	Rs. 525.668
Total for lines			985.666
No. of Sub Station Bays			
400 kv substation	2	68.71	137.420
220 kv substation	4	48.10	192.400
132 kv substation	38	34.36	1305.680
Total for lines			1635.50
Total for Lines & bays			2621.166

Summing up of the above working sheet the Admissible O&M expenses as per CERC Norms works out to Rs.26.21 Crores for the FY 2018-19.

Commission Considers that Actual O&M expenses for FY 2013-14(Audited) reported at Rs.49.54 Crores, inclusive of MeECL cost, are above twice the admissible O&M expenses as per CERC norms for FY 2018-19, it shall be reasonably enhanced based on the inflation factor upto FY 2016-17.(base year).

Commission accordingly has computed the O&M expenses inclusive of MeECL cost for the base year FY 2016-17 with the actual O&M expenses for FY 2013-14(audited) as per the inflation rates notified by GOI, for FY 2014-15 ,FY 2015-16 & FY 2016-17 in view of the fact that utility has maintained the business separately from FY 2013-14.

Table 5. 18: Computation of Base year O&M Expenses inclusive of 1/3 MeECL Cost

(Rs.Crore)			
FY 2013-14 (Audited)	FY 2014-15 inflation at 5.53%	FY 2015-16 inflation at 4.10%	FY 2016-17 inflation at 3.33%
49.54	52.28	54.42	56.24

Commission Considers that O&M expenses shall be fixed based on the transmission network hence forth as per CERC norms. However increase of O&M expenses at a reasonable level is inevitable to fix the Tariff, pending the addition of network during the control period as approved in the Business plan.

Commission Considers 5% increase year on year from FY 2016-17 base year O&M expenses to be reasonable for the control period and accordingly computed in the table 5.19:

Table 5. 19: Approved O&M expenses inclusive of MeECL Cost for the control period

(Rs.Crore)					
Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Projected by MePTCL	87.25	80.83	91.91	151.83	173.48
Approved by MSERC	56.24	59.05	62.00	65.10	68.36

Commission approves O&M expenses at Rs.62.00 Crores, Rs.65.10 Crores, Rs.68.36Crores for FY 2018-19 FY 2019-20 FY 2020-21 respectively.

5.10 Provision for Bad Debts

Petitioner Submission

The licensee has stated that 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 Cr. during the each year for the control period to recover the outstanding receivables in the books of accounts.

The Licensee requested the Commission to approve the bad debts as mentioned above for the second control period.

Commission's Analysis

There is no provision in the Regulations to allow the bad debts towards transmission charges receivable from the beneficiaries Regulation 37.1 of MSERC Regulations 2014 specifies.

In case the payment of bills of generation Tariff or transmission charges by the beneficiary or beneficiaries is delayed beyond a period of 30 days from the date of billing, a late payment surcharge at the rate of 1.25% per month on billed amount shall be levied for the period of delay, by the Generating Company or the Transmission Licensee, as the case may be.

Commission do not consider provision for bad debts claimed by the licensee for the control period.

5.11 Depreciation

Licensee's Submission

MePTCL submitted the Depreciation claim in the Format-6 for the MYT period FY 2018-19, FY 2019-20 and FY 2020-21 at Rs.29.98 Crore, Rs.45.35 Crore and Rs.52.45 Crore respectively after adjusting Amortization grant.

The Asset wise breakup and Depreciation Computations are shown in the table below.

(Rs.Crore)						
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 Equipment	7.70	10.29	19.64	28.67	3.74
4	Furniture and Fixtures	0.07	0.12	0.22	28.67	33.74
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
9	Assets under Lease	-	-	-	-	-
10	Total	21.09	27.05	51.62	75.34	88.68
11	Amortization of Grants	0.46	8.41	21.64	29.99	36.22
	Net Depreciation	20.63	18.65	29.98	45.35	52.45

Commission Analysis:

The GFA for the FY 2014-15 was considered at Rs.364.36 Crores in the provisional true up.

The Licensee has projected GFA for FY 2015-16 (OB) at Rs. 375.71 Crores with an addition of Rs. 58.77 Crores.

Commission has considered GFA as trued down (Prov) for FY 2014-15 and subsequent addition as projected by the licensee and as approved for Business plan is adopted for control period.

Table 5.20: The GFA approved is detailed below

(Rs.Crore)						
Particulars	FY 2015-16	FY2016-17	FY2017-18	FY2018-19	FY2019-20	FY2020-21
GFA OB	364.36	422.95	427.30	567.33	740.09	1449.67
Additions	58.59	4.35	140.03	172.76	709.58	390.14
Closing GFA	422.95	427.30	567.33	740.09	1449.67	1839.81

The Licensee has not filed true up petition together with Audited accounts for FY 2015-16 and FY 2016-17, the breakup of asset wise addition for the FY 2018-19 is not made available for the revised Capitalization as stated in their letter dated 29.1.2018 for computation of depreciation.

The Average rate of Depreciation is arrived as per the pre-revised capitalization breakup for computation of depreciation after adjusting the grants projected for the control period.

Table 5.21: Computation of Depreciation

(Rs.Crore)			
Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Opening GFA	567.33	740.09	1449.67
Additions during the Year	172.76	709.58	390.14
Retirements	-	-	-
Closing GFA	740.09	1449.67	1839.81
Average GFA	653.71	1094.88	1644.74
Average rate of Depreciation	4.67%	4.67%	4.67%
Depreciation allowed	30.53	51.13	76.81
Less: Amortisation grants as projected	21.64	29.99	36.22
Net Depreciation allowed for Tariff	8.89	21.14	40.59

Table 5.22: Depreciation approved for the Control Period

(Rs.Crore)			
Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Projected by MePTCL	29.89	45.35	52.45
Approved by MSERC	8.89	21.14	40.59

5.12 Interest on Working Capital

Petitioner's Submission

MePTCL has projected Interest on Working Capital for the Control Period at Rs. 7.37 Crore, Rs. 10.95 Crore, Rs. 12.57 Crore for FY 2018-19, FY 2019-20, FY 2020-21 respectively as per the details furnished in table 5.23.

Table 5.23: Interest on Working Capital

						(Rs. Crore)
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 submitted before the Hon'ble Commission to kindly approve Interest on Working Capital as projected in the table.

Commission's Analysis

As per the Regulations 34 (2(I)), Interest on Working Capital shall be allowed, computed on the following elements for ARR (Annual Transmission Charges).

- i. O & M expenses for one month.
- ii. Maintenance Spares at 1% of historical cost of assets escalated at 6 % from the date of Commercial operation.
- iii. Receivables equivalent to two (2) months of Transmission charges calculated on target availability level (98%).

Table 5. 24: Approved Interest on Working Capital for the Control Period

Sl. No	Parameter	(Rs. Crore)		
		FY 2018-19	FY 2019-20	FY 2020-21
1	O & M Cost for one month	5.17	5.43	5.70
2	Maintenance spares at 1 % of historical cost escalated at 6	6.01	7.84	15.37
3	Receivables at two (2) months equivalent of ATC at target availability level.	16.00	21.64	29.27
4	Total working capital Requirement	27.18	34.91	50.34
5	Interest Cost at 14.05%	3.82	4.90	7.07

Commission approves Interest on Working Capital at Rs.3.82Cr.Rs. 4.90Cr. & 7.07Cr. for the FY 2018-19, FY 2019-20, FY 2020-21 respectively.

5.13 SLDC Charges

Petitioner's Submission

MePTCL has submitted the SLDC charges to be incurred for the Control period at Rs. 2.42 Crore, Rs. 2.54 Crore, Rs. 2.66Crore for the FY 2018-19, FY 2019-20, FY 2020-21. The Licensee has submitted that 50 % of SLDC Charges are to be met as part of Transmission expenses and requested to allow the SLDC charges in the ARR (ATC) for the Control period.

Commission's Analysis

The functions of MePTCL includes:-

- (a) To build, maintain and operate an efficient co-ordinate and economical Inter-state transmission system or Intra- state transmission system.
- (b) To comply with the directions of RLDC and SLDC.
- (c) To provide non- discriminatory open access to its transmission system use.

In order to operationalize the system, the state transmission utility should manage SLDC by providing necessary infrastructure and trained engineers to develop the SLDC as strategic centre and maintain separate set of books and file ARR and tariff petition.

Commission had in the tariff orders for FY 2013-14 specifically directed MePTCL to comply with the requirement.

Commission however approves the SLDC Charges as an element in the transmission ARR to incur the expenditure at Rs. 1.21 Crore, Rs. 1.27 Crore, Rs. 1.33 Crore for the FY 2018-19, FY 2019-20, FY 2020-21 being the 50 % of SLDC ARR projected for Rs. 2.42 Crore, Rs. 2.54 Crore and Rs. 2.66 Crore for the Control Period.

5.14 Non- Tariff Income

Petitioner's submission

MePTCL has submitted that Non-Tariff Income during the Control period is estimated at Rs. 30.512 Crore, Rs. 33.563 Crore and Rs. 36.919 Crore for the FY 2018-19, FY 2019-20, FY 2020-21 as per the table 5.25.

Table 5.25: Non-Tariff Income Summary

(Rs.Crore)

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

The licensee requested to approve the Non –Tariff Income as estimated above for the Control period FY 2018-19 to FY 2020-21.

Commission's Analysis

The Licensee is entitled to recover wheeling Charges from open-access Consumers, application fee for short term open access, apart from trading income, Interest income, interest on over -due trade receivables etc.

Commission approves Non – Tariff Income at Rs. 30.51 Crore, Rs. 33.56 Crore, Rs. 36.92 Crore for the FY 2018-19, FY 2019-20, FY 2020-21 respectively.

Table 5.26: ARR (Annual Transmission Charges) for the control period FY 2018-19 to FY 2020-21

(Rs.Crore)

Sl. No.	ARR Elements	Filed by MePTCL			Approved by MSERC		
		FY 2018-19	FY 2019-20	FY 2020-21	FY 2018-19	FY 2019-20	FY 2020-21
1	Return on Equity	80.82	99.02	109.58	23.28	41.81	64.91
2	Interest & Finance charges	11.72	13.57	16.93	0.59	0.52	0.45
3	O & M Expenses	91.91	151.83	173.48	62	65.10	68.36
4	Interest on Working Capital	7.37	10.95	12.51	3.82	4.90	7.07
5	Depreciation	29.98	45.35	52.45	8.89	21.14	40.59
6	SLDC Charges	1.21	1.27	1.33	1.21	1.27	1.33
7	Provision for bad Debts	20.51	20.51	20.51			
8	Total ARR	243.54	342.50	386.80	99.79	134.74	182.71
9	Less: SLDC ARR	2.42	2.54	2.66	2.42	2.54	2.66
10	Less: Non-Tariff Income	30.51	33.56	36.92	30.51	33.56	36.92
11	Net(ATC) ARR	210.61	306.40	347.22	66.86	98.64	143.13

6. Transmission Tariff and Open Access Charges

6.1 Computation of Transmission and Open Access Charges:

Determination of Transmission Tariff for FY 2018-19

Sl.No	Particulars	Transmission ARR Projected	Approved by Commission
1	MePTCL ARR (Rs.Cr.)	210.61	66.86
2	Average Load in (MW)	758	758
3	Units to be Handled (MU)	3105.68*	3130.81
4	Transmission Tariff (1/3)	0.68/kwh	0.21/kwh
5	Open Access Charges(1/2/365)		Rs.2417/MW per day

** MU to be handled by MePTCL is considered as approved for MePDCL for the FY 2018-19.*

The Commission has considered the Transmission ARR at Rs.66.86 Crores for FY 2018-19 and approves Transmission and open access charges at Rs.0.21Ps/kwh and open access charges at Rs.2417/MW/ per day as computed above.

MePTCL shall recover the transmission charges and open access charges as approved in the table above from the beneficiary MePDCL. The above approved rates shall be applicable to all the Open Access Consumers. The recovery of charges from open access consumers shall be done strictly as per Regulation 21 of MSERC (Terms and Conditions of Open Access) Regulations, 2012. The transmission charges shall be payable on the basis of contracted Capacity/Scheduled Load or actual power flow whichever is higher, at the rate determined above. All other charges shall be as per the Regulations and the Commission's order issued from time to time. The Commission also directs MePTCL to recover the charges of previous period in the same manner as per the Orders and Regulations and show it in the final true up of the previous years.

7. Directives

EARLIER DIRECTIVES

1. The Commission directs the transmission company to study the open access procedure, evaluate the spare capacity, and demand of the state while allowing NOC to Open Access consumers. MePTCL is directed to adhere to the Commission's Regulations and orders while recovering the charges from such Open Access consumers strictly.
2. While allowing open access, the STU shall ensure that the availability / capacity of the line on which open access shall take place is sufficient. In no case it should hinder the power flow to the distribution licensee. It is further directed that STU, while computing the spare capacity in the Transmission lines, shall include the evacuation of power from new central generating stations that are being allocated to Meghalaya in the ensuing Tariff period. Any failure of the grid on account of over utilization of the present capacity by Open Access consumers shall be investigated and suitable action shall be taken to plug the Revenue loss.
3. **Employee expenses/ O&M expenses:**

MePTCL has claimed employee expenses for FY 2014-15 at 41.56 % excess over the approved level. The licensee shall submit detailed analysis of employee expenses, component wise, like Basic Pay, DA, HRA and other allowance. The Licensee shall submit up to date of Circuit Kilo Meters of transmission lines, transmission capacity in MVA and number of Bays Sub-station wise by 30.06.2018 in order to fix the O & M expenses as per the CERC Regulations 2014.

Licensee shall seek approval of O & M expenses from the Commission.

Comments by MSERC-Licensee has furnished the network data and the Commission has considered the O&M expenses as per the CERC norms.
4. MePTCL has proposed transmission losses at 4%, which has accordingly been adopted by the Commission. In no case the transmission losses shall be allowed in excess of 4%. The Licensee shall ensure the network availability without any interruptions for the contracted capacity with the distribution Licensee.

5. STU shall also ensure the compliance of principles of Grid Code, CERC Regulations while allowing open Access and shall recover the charges as allowed by the Commission and its regulations.

Status: -Complied

6. The Commission directs the Licensee to get C & AG certificate of statement of accounts from FY 2013-14 onwards before filing of the next ARR Petition.

Status: - The Licensee has not complied the directive.

7. The MePTCL is required to maintain separate Account Books for SLDC and file the expenditure and Income along with Transmission ARR without fail.

Status: - MePTCL has not filed separate ARR for SLDC. Licensee shall maintain separate books of accounts before filing next petition, which shall be done along with SLDC data.

8. MePTCL shall maintain Assets records and arrange for audit, post restructuring of the MeSEB. The OCFA value of Assets which have served their life shall be removed from the books while retaining 10 % salvage value.

Status: - MePTCL has not complied with the directive. Commission directs the Licensee to arrange for audit of books post restructuring of the MeSEB, and the retirement of assets values whose life term has been completed, shall be brought into books in order to reduce the cost and Tariff.

9. Fresh Directives

The Licensee has not disclosed the grants and contributions for implementation of the new investment for the MYT control period FY 2018-19 to FY 2020-21, whereas capitalization of assets has been projected for the entire value of proposed capital investment during the control period in the business plan. As the ARR is considered on the basis of estimates Commission considers that the grants and contributions may be made available during the course of project execution. The Licensee shall furnish the details of the grants and contributions in the first year of control period FY 2018-19.

10. Commission observed that the true up of business from FY 2013-14 to FY 2016-17 is yet to be filed by the licensee. The losses and gains on true up of the business shall

be appropriated for which interest costs may be a burden to both utility and users. Licensee shall expedite action on the above over delays.

- 11.** Huge investments are proposed for improving the transmission system during second control period and it is expected that it would be possible to reduce the losses below 4%. The Commission directs that quality meters shall be provided on both ends of each transmission line and losses worked out on each line. Particulars of line wise losses shall be provided from September 2018 onwards, for each and every quarter, to the Commission. Total system losses based on metering data shall be worked out and submitted with the petition for FY 2019-20.

12. Transmission system availability

Transmission system availability is stated to be 98% without adequate data. Commission accepted the proposal. To access the system availability MePTCL should maintain record of performance of each transmission lines voltage wise by showing details of interruptions, break downs with duration.

Based on monthly reports maintained system availability should be arrived and shown in the next tariff petition for accepting the system availability.

- 13.** MePTCL shall maintain separate books for SLDC and file the petition for tariff in the next ARR filings.

RECORD NOTE OF THE 21ST MEETING OF THE STATE ADVISORY COMMITTEE HELD ON 15TH FEBRUARY 2018 AT THE MSERC CONFERENCE HALL, SHILLONG.

Present:-

- 1 Shri. W.M.S. Pariat, Chairman Meghalaya State Electricity Regulatory Commission.
- 2 Shri P.W.Ingty, IAS Additional Chief Secretary, Food & Civil Supplies etc.
Government of Meghalaya
- 3 Shri J.B. Poon, Secretary Meghalaya State Electricity Regulatory Commission.
- 4 Shri. U.N.Madan, Director, MNREDA
- 5 Shri. K.W. Sohlang Engineer (Tariff), MSERC
- 6 Shri. Rangstone Paul Kurbah, Research Asstt., MSERC

From Meghalaya Energy Corporation Limited.

- 1 Shri. P.Sakhkar, Superintending Engineers (RA), MePDCL.
- 2 Shri S.B. Nath Superintending Engineers (Elect-II), MePTCL
- 3 Shri. A. Lyngdoh, Superintending Engineers (Civil), MePGCL.

Consultants of MeECL

- 4 Shri. Sanket Samantray Consultant, PWC
- 5 Shri. Krshtij Dhingre, Consultant, PWC.
- 6 Shri. Piyush Lohia, Consultant, PWC.

Calling the 21st Meeting of the state Advisory Committee (SAC) to order, the Chairman welcomed the members present. He briefly introduced the members and told about the purpose of the meeting as envisaged in the Electricity Act 2003. He also briefed the members on the present MSERC, MYT Regulations 2014 and implications of each of the component of ARR in the Tariff. Members of the Advisory committee were briefed that the Commission has admitted ARR petition for Distribution, Transmission and Generation on 04.12.2017. The utilities had published the salient features of this

petition inviting comments of each stakeholders including public. On the ARR & Tariff Petition for the year 2018-19, the Chairman called upon the Hon'ble Members to participate in the deliberations and put forward their suggestions. Chairman then requested regulatory officers of Generations, Transmission and Distribution companies to make the presentation.

Sd/-
(J.B.Poon)
Secretary, MSERC.

List of the Objectors

1. Name & Address

**M/s Byrnihat Industries Association (BIA)
13th Mile, Tamulikuchi, Byrnihat,
RiBhoi District, Nongpoh,
Meghalaya-793 101.**

2. Greater Shillong Crematorium & Mortuary Society

**Shillong Electric Crematorium Complex
T.B. Hospital Road, Jhalupara, Shillong
Meghalaya**

3. Green Valliey Industries Limited

**Nongsning
Jaintia Hills District
Meghalaya 793200**