# **BEFORE**

# MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION, SHILLONG

# **PETITION**

For

### **TRUE UP OF FY 2014-15**

AND

# **PROVISIONAL TRUE UP OF FY 2015-16**

AND

# MID-TERM REVIEW OF 1<sup>ST</sup> MYT CONTROL PERIOD FY 2015-16 TO FY 2017-18

AND

# **REVISED DISTRIBUTION TARIFF FOR FY 2017-18**

## FILED BY



# MEGHALAYA POWER DISTRIBUTION CORPORATION LTD.

LumJingshai, Short Round Road, Shillong - 793 001

#### BEFORE THE HON'BLE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

FILE / PETITION NO......

IN THE MATTER OF

TRUE UP OF THE AGGREGATE REVENUE REQUIREMENT (ARR) FOR THE FY 2014-15, PROVISIONAL TRUE UP OF FY 2015-16 AND MID-TERM REVIEW OF THE FIRST MULTI YEAR TARIFF CONTROL PERIOD (FY 2015-16 TO FY 2017-18) AND ANNUAL REVENUE REQUIREMENT AND TARIFF PROPOSAL FOR FY 2017-18 OF MEGHALAYA POWER DISTRIBUTION COMPANY LIMITED (MeECL) UNDER THE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION (TERMS AND CONDITIONS FOR DETERMINATION OF TARIFF) REGULATIONS, 2011 AND MSERC (MULTI YEAR TARIFF) REGULATIONS 2014 AND UNDER SECTION-62 READ WITH SECTION 86 OF THE ELECTRICITY ACT 2003.

AND IN THE MATTER OF

MEGHALAYA POWER DISTRIBUTION CORPORATION LIMITED, LUMJINGSHAI, SHILLONG – 793001, MEGHALAYA

**PETITIONER** 

#### The Petitioner respectfully submits as under:

- 1. In exercising its powers conferred under the section 131 and 133 of the Electricity Act 2003, the State Government of Meghalaya notified "The Meghalaya Power Sector Reforms Transfer Scheme 2010" on 31<sup>st</sup> March 2010 leading to restructuring and unbundling of erstwhile Meghalaya State Electricity Board (MeSEB) into four entities namely (i) Meghalaya Energy Corporation Limited (MeECL), the Holding Company; (ii) Meghalaya Power Distribution Corporation Limited (MePDCL), the Distribution Utility; (iii) Meghalaya Power Generation Corporation Limited (MePDCL), the Generation Utility; & (iv) Meghalaya Power Transmission Corporation Limited (MePTCL), the Transmission Utility.
- 2. However, the holding company MeECL carried out the functions of distribution, generation and transmission utilities from 1<sup>st</sup> April 2010 to 31<sup>st</sup> March 2012. Therefore, through notification dated 31<sup>st</sup> March 2012, State Government notified an amendment to The Power Sector Reforms Transfer Scheme leading to effective unbundling and functional segregation of the successor entities, as stated above.
- 3. The Meghalaya State Electricity Regulatory Commission (hereinafter referred to as "MSERC" or "the Hon'ble Commission") is an independent statutory body constituted under the provisions of the Electricity Act (EA), 2003. The Hon'ble Commission is vested with the authority of regulating the power sector in the State inter alia including determination of tariff for electricity consumers.
- 4. The Government of Meghalaya vide its Power Sector Reforms Transfer Scheme 2010 transferred the assets, properties, rights, liabilities, obligations and personal of the erstwhile MeSEB into four corporations namely (i) the Meghalaya Energy Corporation Limited (MeECL), which is the holding company, (ii) the Meghalaya Power Generation Corporation Limited

- (MePDCL), which is the generation utility, (iii)the Meghalaya Power Distribution Corporation Limited (MePDCL), which is the distribution licensee and (iv) the Meghalaya Power Transmission Corporation Limited (MePTCL), which is the transmission licensee.
- 5. This transfer scheme is effective from 01.04.2012 and from that date all companies/licensees started independent functioning. However, it is submitted that, even currently, some of the functions in the three companies like accounting, commercial etc. are handled commonly by MeECL, the segregated accounts for the three companies were prepared from FY 2012-13 onwards. The unbundled utilities for generation, transmission and distribution started their independent commercial operation from FY 2013-14. MSERC has also issued the segregated tariff orders of generation, transmission and distribution separately from FY 2013-14 and as such, the present truing up is also being done separately for the three companies.
- 6. MePDCL has begun segregated commercial operations as an independent entity from 1<sup>st</sup> April 2013 onwards. The Meghalaya State Electricity Regulatory Commission (MSERC, hereinafter referred to as "The Hon'ble Commission") has determined the segregated Aggregate Revenue Requirement (ARR) and tariffs for MePDCL for FY2014-15 in accordance with Meghalaya State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2011.
- 7. Under Meghalaya State Electricity Regulatory Commission i.e. MSERC (Multi Year Tariff) Regulations, 2014, MePDCL had filed MYT petition for Annual Revenue Requirement for the period of FY 2015-16 to FY 2017-18. In respect to the said petition MYT order was issued by Hon'ble Commission on 31<sup>st</sup>March 2015. The Hon'ble Commission has allowed increase in tariff and the new tariff was effective from 1st April 2015.
- 8. The petition for provisional true up of FY 2014-15 was filed by MePDCL vide letterNo.: MePDCL/DD/T-444(Pt-IV)/2015-16/36 dated 5<sup>th</sup> February 2016. Since the accounts of FY 2014-15 were not audited at that point in time, the truing up of FY 2014-15 for MePDCL was done on provisional basis based on the pre audited Statement of Accounts, to enable complete adjustment of gaps of previous years in the calculation of revised tariff of FY 2016-17.
- Now, since the Accounts for FY 2014-15 have been audited by the Statutory Auditors, MePDCL, files this petition before the Honorable Commission for final true up of FY 2014-15. The audited Statements of Accounts of MePDCL & MeECL for FY 2014-15 are hereby enclosed as Annexures A and B respectively.
- 10. The Statement of Accounts for FY 2015-16 of MePDCL and MeECL have been finalized and approved by the Board of Directors and are ready for presentation before the statutory auditors and are hereby enclosed as **Annexure C & D** respectively.
- 11. MePDCL would like to request the Hon'ble Commission to grant leave for filing the pre-audited accounts of FY 2015-16 along with this petition and carry out provisional true up at this stage and calculation of revised tariff of FY 2017-18 based on the same. MePDCL shall strive to complete the audit of the Statement of Accounts of FY 2015-16 at the earliest and submit the same to the Hon'ble Commission.

- 12. The Board of Directors of MePDCL have accorded approval for filing of this petition and authorized the undersigned to file the petition accordingly. The copy of the Board's resolution is hereby enclosed as **Annexure E**.
- 13. The applicant, therefore, humbly prays before the Hon'ble Commission to pass appropriate order on the following:
  - a. True up of FY 2014-15
  - b. Provisional truing-up of FY 2015-16;
  - c. Mid-term review of the 1<sup>st</sup> MYT control period FY 2015-16 to FY 2017-18;
  - d. Revision of Annual Revenue Requirement, Tariff and Open Access Charges for FY 2017-18 based on the above;
  - e. 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;
  - f. To condone any inadvertent omissions, errors & shortcomings and permit the applicant to add/ change/ modify/ alter this filing and make further submissions as required.

(M. Shylla)
Superintending Engineer (Re-Organisation),
For and on behalf of
Meghalaya Power Distribution Corporation Ltd

# **Contents**

1	IN	ITRODUCTION	4
	1.1	PROVISIONS OF LAW FOR TRUE-UP AND MID-TERM REVIEW	,
	1.1	SUBMISSIONS BEFORE THE HON'BLE COMMISSION	
2	TF	RUING UP FOR FY 2014-15	8
	2.1	BACKGROUND	
	2.2	PERFORMANCE	
	2.3	DETERMINATION OF ANNUAL REVENUE REQUIREMENT (ARR)	1
	2.4	Transmission Charges	
	2.5	OPERATION AND MAINTENANCE EXPENSES (O&M EXPENSES)	14
	2.6	DEPRECIATION	
	2.7	Interest and Financial Charges	18
	2.8	INTEREST ON WORKING CAPITAL	19
	2.9	OTHER DEBITS (INCLUDING PROVISION FOR BAD DEBTS)	19
	2.10	PRIOR PERIOD EXPENSE	20
	2.11	RETURN ON EQUITY	22
	2.12	OTHER INCOME	22
	2.13	REVENUE FROM SALE OF POWER	23
	2.14	AGGREGATE TECHNICAL & COMMERCIAL (AT & C) LOSSES	23
	2.15	AGGREGATE REVENUE REQUIREMENT AND REVENUE GAP/SURPLUS FOR FY 2014-15	24
3	DE	ROVISIONAL TRUE UP OF FY 2015-16	29
	3.1	Background	28
4	М	IID TERM REVIEW OF 1 <sup>ST</sup> MYT CONTROL PERIOD AND REVISION OF ARR FOR FY 2017-18	30
	4.1	Background	3(
	4.2	COMPONENTS OF TARIFF AND PROJECTION METHODOLOGY	
	4.3	ENERGY BALANCE FOR THE CONTROL PERIOD	
	4.4	Power Purchase Cost	
	4.5	Transmission Charges	37
	4.6	EMPLOYEE EXPENSES	
	4.7	REPAIR AND MAINTENANCE (R&M) EXPENSE	38
	4.8	Administrative & General (A&G) Expense	
	4.9	DEPRECIATION	39
	4.10	Interest and Finance Charges	40
	4.11	Interest on Working Capital	4:
	4.12	RETURN ON EQUITY	4:
	4.13	Non-Tariff Income	43
	4.14	RE Subsidy	44
	4.15	REVENUE FROM SALE OF SURPLUS POWER	44
	4.16	Annual Revenue Requirement (ARR) for each year of the Control Period	45
5	DI	ETERMINATION OF RETAIL SUPPLY TARIFF FOR FY 2017-18	Δ(
		· · - · · - · · · · · · · · · · · ·	

5.1	TOTAL GAP TO BE RECOVERED THROUGH TARIFF IN FY 2017-18	46
	REVENUE AT EXISTING TARIFF	
5.3	REVENUE GAP FOR FY 2017-18	47
5.4	DETERMINATION OF RETAIL SUPPLY TARIFF RATES FOR FY 2017-18	48
5.5	PROPOSED RETAIL SUPPLY TARIFF SCHEDULE FOR FY 2017-18	48
5.6	WHEELING CHARGES AND CROSS SUBSIDY SURCHARGE FOR FY 2016-17	50
5 7	PRAYER REFORE THE HONORARI E COMMISSION	50

# **List of Tables**

Table 1:Energy Available to MePDCL from various sources in FY 2014-15	8
Table 2: Comparison of Energy Sales in FY 2014-15 (in MU)	9
Table 3: Computation of T&D Losses for FY 2014-15	10
Table 4: Source wise Power Purchase Cost for FY 2014-15	12
Table 5: Comparison of Transmission Charges for FY 2014-15 (INR Crore)	14
Table 6: R&M expenses for FY 2014-15 (INR Crore)	15
Table 7: True up of R&M expenses for FY 2014-15 (INR Crore)	15
Table 8: Employee expenses for FY 2014-15 (INR Crore)	15
Table 9: True up of Employee Expenses for FY 2014-15 (INR Crore)	16
Table 10: A&G Expenses for FY 2014-15 (INR Crore)	16
Table 11: True up of A&G Expenses for FY 2014-15(INR Crore)	17
Table 12: Depreciation for FY 2014-15 (INR Crore)	17
Table 13: True up of Depreciation for FY 2014-15 (INR Crore)	18
Table 14: True up of Interest and Finance Charges for FY 2014-15 (INR Crore)	18
Table 15: Computation of Interest on Working Capital for FY 2014-15	19
Table 16: True up of Interest on Working Capital for FY 2014-15 (INR Crore)	19
Table 17: Other Debits (including provision for Bad Debts) for FY 2014-15 (INR Crore)	19
Table 18: Net prior period Expense for FY 2014-15 (INR Crore)	20
Table 19: True up of Return on Equity for FY 2014-15 (INR Crore)	22
Table 20: Other Income in FY 2014-15 (INR Crore)	22
Table 21: Revenue from sale of power in FI 2014-15 (Rs. Cr)	23
Table 22: Revenue Collection for FY 2014-15 (INR Crore)	24
Table 23: Aggregate Revenue requirement and Revenue Gap/(Surplus) for FY 2014-15 (INR Crore)	26
Table 24: Gap from True up of FY 2014-15 to be passed on to ARR of FY 2017-18 (INR Crore)	27
Table 25: Gap from Provisional True up of FY 2015-16 to be passed on to ARR of FY 2017-18 (INR Crore)	28
Table 26: Approved ARR for the Control Period (in INR Crore)	30
Table 26: Energy Balance for the 1 <sup>st</sup> MYT Control Period	31
Table 26: Power Purchase Cost (Actuals) in FY 2015-16	33
Table 26: Power Purchase Cost (estimated) for FY 2016-17	34
Table 26: Power Purchase Cost approved for FY 2017-18	35
Table 26: Power Purchase Cost (projected) for FY 2017-18	36
Table 30: Transmission Charges (projected) for FY 2017-18 (in INR Crore)	37
Table 31: Employee Expenses (projected) for FY 2017-18 (in INR Crore)	38
Table 32: Repair & Maintenance (R&M) Expense (projected) for FY 2017-18 (in INR Crore)	38
Table 33: Administrative & General (A&G) Expense (projected) for FY 2017-18 (in INR Crore)	39
Table 34: Depreciation (Actuals) in FY 2015-16 (in INR Crore)	39
Table 35: Depreciation (Estimated) in FY 2016-17 (in INR Crore)	39
Table 36: Depreciation (Projected) for FY 2017-18 (in INR Crore)	40
Table 37: Interest and Finance Charges for the Control Period 2015-18 (in INR Crore)	40
Table 38: Interest on Working Capital for the Control Period 2015-18 (in INR Crore)	41
Table 39: Return on Equity for the Control Period 2015-18 (in INR Crore)	43
Table 40: Non-Tariff Income for the Control Period 2015-18 (in INR Crore)	44
TABLE 41: REVENUE FROM SALE OF SURPLUS POWER FOR THE CONTROL PERIOD 2015-18 (IN INR CRORE)	45

Table 41: Annual Revenue Requirement (ARR) for the Control Period 2015-18 (in INR Crore)	45
Table 45: Total Revenue in FY 2017-18 (in INR Crore)	46
Table 46: Projection of Sale of Power based on 4-year CAGR (in Million Units)	46
Table 47: Projection of Revenue from Sale of Power at existing tariff in FY 2017-18	47
Table 48: Revenue Gap in FY 2017-18 (in INR Crore)	48
Table 49: Revenue Gap in FY 2017-18 with 25% tariff hike (in INR Crore)	48
TABLE 50: TARIFF RATES PROPOSED FOR VARIOUS CONSUMER CATEGORIES IN FY 2017-18	48
TABLE 51 - DRODOCED ODEN ACCESS CHARGES FOR EV 2017-19	50

## **Abbreviations**

ARR	Annual Revenue Requirement
FY	Financial Year
GoM	Government of Meghalaya
KWh	Kilo Watt Hour
Kv	Kilo Volt
kVA	Kilo Volt Ampere
kVAh	Kilo Volt Ampere Hour
MSERC	Meghalaya State Electricity Regulatory Commission
MU	Million Units (Million kWh)
MW	Mega Watt
MYT	Multi Year Tariff
O&M	Operation & Maintenance
FPPPA	Fuel and Power Purchase Price Adjustment
MeECL	Meghalaya Energy Corporation Limited
MePDCL	Meghalaya Power Distribution Corporation Limited
MePTCL	Meghalaya Power Transmission Corporation Limited
MePGCL	Meghalaya Power Generation Corporation Limited
MYT Regulations 2014	MSERC (Multi Year Tariff) Regulation, 2014

#### 1 Introduction

#### 1.1 Provisions of Law for True-up and Mid-Term Review

- 1.1.1 The Hon'ble Commission has notified the Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2014 on 15<sup>th</sup> September 2014. It is submitted that the Regulation 1.4 of the Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) regulations, 2014 states as under:
  - "1.4 They shall be applicable for the determination of tariff effective from April 1, 2015 in all cases covered under these Regulations. Provided that for the purpose of review or of truing up of revenues and expenses pertaining to FYs prior to 2015-16, the provisions under MSERC (Terms and Conditions for Determination of Tariff) Regulations, 2011 shall apply."
- 1.1.2 The Hon'ble Commission had notified the Meghalaya State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2011 on 10<sup>th</sup> February 2011 (hereinafter referred as "Tariff Regulations, 2011"). These Regulations provide the framework under which the licensees shall operate. Accordingly, the key provisions of the said Regulations are reproduced below for reference.

#### "15. Review and Truing-Up

- (1) ......
- (2) After Audited accounts of a year are made available, the Commission shall undertake similar exercise as above with reference to the final actual figures as per the Audited accounts. This exercise with reference to Audited accounts shall be called 'truing-Up'.
- 1.1.3 (3) The generating company or the licensee, as the case may be, shall make an application before the Commission, for 'truing up' of ARR of the previous year by 30<sup>th</sup> September of the following year, on the basis of Audited statement of accounts and the Audit Report, thereon. The generating company or the licensee shall get their accounts Audited within a specified time frame, either by the Comptroller & Auditor General of India or by a Statutory Auditor drawn from the panel of Statutory Auditors approved by the Comptroller & Auditor General of India, from time to time, to enable them to file the application for 'truing up' within the specified date, that is 30th September of the following year."
- 1.1.4 It is submitted that this Petition True up for FY 2014-15 is hereby filed, based on the information received for FY 2014-15, Audited Statement of Accounts of the utility and pursuant to the Tariff Order dated 12<sup>th</sup> April 2014 and subsequent provisional true up vide Tariff Order dated 31<sup>st</sup> March 2016 passed by Hon'ble Commission.

1.1.5 The Hon'ble Commission has notified the Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2014 on 15<sup>th</sup> September 2014 which is applicable for determination of tariff effective from 1 April 2015. Regulation 6.2 (c) (i) of the said Regulations specifies that a mid-term review petition must comprise truing up of the previous year i.e. the first year of the control period. Regulation 11 of the said Regulations lays down the general guiding principles for truing up and the provisions of the said Regulations are reproduced below for reference:

#### "11. Truing-Up

- 11.1 Where the Aggregate Revenue Requirement and expected revenue from tariff and charges of a Generating Company or Transmission Licensee or Distribution Licensee is covered under a Multi-Year Tariff framework, then such Generating Company or Transmission Licensee or Distribution Licensee, as the case may be, shall be subject to truing up of expenses and revenue during the Control Period in accordance with these Regulations.
- 11.2 The Generating Company or Transmission Licensee or Distribution Licensee shall file an Application for Truing up of the previous year and determination of tariff for the ensuing year, within the time limit specified in these Regulations:
- 11.3 Provided that the Generating Company or Transmission Licensee or Distribution Licensee, as the case may be, shall submit to the Commission information in such form as may be prescribed by the Commission, together with the Audited Accounts including audit report by CA&G, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges:
- 11.4 Provided further that once the Commission notifies the Regulations for submission of Regulatory Accounts applications for tariff determination and truing up shall be based on the Regulatory Accounts.
- 11.5 The scope of the truing up shall be a comparison of the performance of the Generating Company or Transmission Licensee or Distribution Licensee with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise of the following:
  - a) a comparison of the audited performance of the applicant for the previous financial year with the approved forecast for such previous financial year, subject to the prudence check including pass-through of impact of uncontrollable factors;
  - b) Review of compliance with directives issued by the Commission from time to time;

- c) Other relevant details, if any.
- 11.6 In respect of the expenses incurred by the Generating Company, Transmission Licensee and Distribution Licensee during the year for controllable and uncontrollable parameters, the Commission shall carry out a detailed review of performance of an applicant vis-a-vis the approved forecast as part of the truing up.
- 11.7 Upon completion of the truing up under Regulation 11.4 above, the Commission shall attribute any variations or expected variations in performance for variables specified under Regulation 12 below, to factors within the control of the applicant (controllable factors) or to factors beyond the control of the applicant (uncontrollable factors):

Provided that any variations or expected variations in performance, for variables other than those specified under Regulation 12.1 below shall be attributed entirely to controllable factors.

- 11.8 Upon completion of the Truing Up, the Commission shall pass an order recording:
  - a) the approved aggregate gain or loss to the Generating Company or Transmission Licensee or Distribution Licensee on account of controllable factors, and the amount of such gains or such losses that may be shared in accordance with Regulation 14 of these Regulations;
  - b) Components of approved cost pertaining to the uncontrollable factors, which were not recovered during the previous year, shall be pass through as per Regulation 13 of these Regulations;
  - c) Tariff determined for the ensuing year."
- 1.1.6 Regulation 4.2 (a) of the said Regulations lays down the elements of the MYT framework and also provides for a mid-term review. The relevant sections is reproduced hereunder:
  - "4.2 The Multi-Year Tariff framework shall be based on the following elements, for determination of Aggregate Revenue Requirement and expected revenue from tariff and charges for Generating Company, Transmission Licensee, and Distribution Business:

...

Provided further that a Mid-term Review of the Business Plan may be sought by the Generating Company, Transmission Licensee and Distribution Licensee through an application..."

1.1.7 Also, Regulation 10.2 of the said Regulations provides that the various targets stipulated by

the Commission may be reviewed during mid-term review. The relevant section is reproduced below:

"10.2 Provided that the Generating Company, Transmission Licensee and Distribution Licensee may seek a review of the trajectory at the time of mid-term review of Business Plan."

1.1.8 Section 61 & Section 62(c) & (d) of Electricity Act 2003 empower the Hon'ble Commission to determine tariff for wheeling and retail sale of electricity for the Distribution Licensee.

#### 1.2 Submissions before the Hon'ble Commission

- 1.2.1 MePDCL hereby submits the petition under section 61, 62(c) & 62(d) of the Electricity Act, 2003, MSERC Terms and Conditions for Determination of Tariff) Regulations, 2011 and MSERC (Multi Year Tariff) Regulations, 2014 for approval of True Up of FY 2014-15, Provisional True Up of FY 2015-16, Mid-Term Review of 1<sup>st</sup> MYT Control Period, Revision of ARR and Tariff Determination for FY 2017-18.
- 1.2.2 M/S Kiron Joshi & Associates has been appointed as Statutory Auditor of MePGCL, M/s A Paul & Co has been appointed as Statutory Auditor of MePTCL, MePDCL, and M/s Amit O P Sharma & Associates has been appointed as Statutory Auditor of MeECL. The firms are chartered Accountancy firms, appointed as Statutory Auditors for the FY 2014-15 by the Comptroller & Auditor General of India (C&AG).

#### **2** Truing Up for FY 2014-15

## 2.1 Background

2.1.1 While approving the provisional true up of FY 2014-15, the Hon'ble Commission had considered the audited Statement of Accounts of FY 2013-14 and provisional Statement of Accounts of FY 2014-15. Now, since the audited Statement of Accounts for FY 2014-15 are available, and as such, MePDCL is claiming the truing up of ARR of FY 2014-15 based on the actual figures as per the audited account statements with necessary justifications as required.

#### 2.2 Performance

#### 2.2.1 Availability of Energy:

The power availability in the state of Meghalaya is primarily from three key sources- (a) from the generating stations of MePGCL, (b) from the allocated share of central power sector generating companies like NEEPCO, NHPC and NTPC etc. and (c) from short term power purchase from IEX/UI/bilateral trade and banking etc. The comparison of actual source wise energy availability and the approved energy availability in FY 2014-15, is provided in the table below:

Table 1:Energy Available to MePDCL from various sources in FY 2014-15

Sr.	Source	Approved	Actual availability
No.		availability (MUs)	(MUs)
Α	MePGCL	1026	835.92
В	Outside purchase		
1	NTPC	275.49	152.84
2	NHPC Loktak HEP	50.69	0.00
3	NEEPCO (excl. free power)	528.78	458.05
4	OTPC Pallatana GPP	275.22	263.63
5	Free Power	60.48	42.06
С	Short Term (Bilateral/ Banking/ UI etc.)		
1	Mittal Processors Pvt. Ltd. (MPPL) – Swapping	0	232.19
2	Mittal Processors Pvt. Ltd. (MPPL) – Exchange		30.12
3	Meghalaya Power Ltd. (MPL) – Banking	0	14.72
4	NTPC VidyutVyapar Nigam Ltd.	0	6.34
5	Power Trading Corporation India Ltd (PTCIL) -	0	47.28
	Swapping	U	47.20
6	Unscheduled Interchange (UI)	0	20.60
D	Total Availability	2216.66	2103.75

2.2.2 It may be observed from the above table that the actual power availability from MePGCL and central power sector utilities was less than the approved figures and as such, MePDCL

had to resort to short term power purchase on bilateral basis/banking/day ahead market etc. to meet the demand. Also, surrendering of power from NHPC Loktak and imposition of power regulations by NEEPCO resulted in lower availability of power from the allocated sources. The total actual power purchase/availability was less than the approved figures as the demand was also less than the approved values, as shown above.

2.2.3 Further, MePDCL would like to submit that NEEPCO had imposed power regulations for a considerable period during the year and during this period, MePDCL was forced to pay the fixed charges of NEEPCO but was not able to draw power from NEEPCO which resulted in increase in per unit power purchase cost, as detailed in the subsequent paragraphs.

#### 2.2.4 Energy Sales:

The comparison of actual category wise energy sold to consumers and the approved sales by the Hon'ble Commission is shown in the table below:

Table 2: Comparison of Energy Sales in FY 2014-15 (in MU)

SI. No.	Consumer Category	MSERC Approved	MePDCL Actuals				
	LT Category						
1	Domestic (DLT) (Including MeECL Establishments).	387	363.20				
2	Commercial (CLT)	68	62.59				
3	Industrial (ILT)	7	5.26				
4	Agriculture (Ape)	0.17	0.10				
5	Public Lighting (PL)	1.25	1.27				
6	Water Supply (WSLT)	10	8.53				
7	General Purpose (GP)	17	17.69				
8	KutirJyoti (KJ)	16	21.47				
9	Crematorium (CRM)	0.24	0.19				
	HT Category						
10	Industrial (HT)	274	221.02				
11	Water Supply (WS HT)	30	32.41				
12	Domestic (DHT)	22	22.53				
13	Commercial (CHT)	23	23.05				
14	Bulk Supply (HT)	69	62.03				
	EHT Category						
16	Industrial (EHT)	203	179.60				
	Others						
17	ASEB (General purpose)	22.23	20.00				
	Sub Total (Sale of power within state)	1149	1040.93				
18	Sale to UI and Power Exchanges		126.48				
19	Swapping		330.64				
	Total	1149	1,498.05				

- 2.2.5 The Hon'ble Commission had examined the sales figures in the previous five years and had projected the category wise sales for FY 2014-15 based on the compound annual growth rate in each category of consumers for the past five years. For HT and EHT consumers, the sales were projected based on the actuals of past years and the assumption that the power supply to the industrial consumers would improve from the past year.
- 2.2.6 The actual sales in FY 2014-15 for most of the categories (except industrial) were similar to the approved sales and there was an increase of demand in these categories in accordance with the increase considered in the ARR projections. However, for industrial category, the power sales were much lower than the approved figures on account of open access and restricted purchase from the discom by such HT/EHT consumers. Also, the sale to KutirJyoti consumers was on a much higher side than estimated because of increase in number of such connections under schemes like RGGVY.

#### 2.2.7 **T&D losses:**

The Hon'ble Commission had provided a target of 24% for overall T&D losses in FY 2014-15 and had accordingly worked out the availability of the power and energy to be sold during the year. The figure of 24% is inclusive of the intra state transmission losses in the network of MePTCL and the sub-transmission and distribution losses in the network of MePDCL.

2.2.8 However, the actual T&D losses in FY 2014-15 is shown in the table below:

Table 3: Computation of T&D Losses for FY 2014-15

Sr.	Particulars	Calculation	Amount
No.			
1	Power purchased from the Eastern Region (ER)	Α	152.84
2	Inter-state transmission loss for ER	В	2.30%
3	Net power purchased from the ER	C=A*(1-B)	149.33
4	Power purchased from the North -Eastern Region (NER)	D	645.14
5	Inter-state transmission loss for NER	E	3.48%
6	Net power available at state bus from external sources on long term	F=(C+D)*(1-E)	766.82
7	Power purchased from generating stations within the state	G	996.57
8	Power purchased from other sources	Н	309.20
9	Power sold to other states (including swapping/UI/bilateral)	I	457.12
10	Net power available at state bus for sale of power within the state	J=F+G+H-I	1,615.47
11	Power sold to consumers within the state	K	1,040.93
12	Transmission & Distribution Losses	L=J-K	574.53
13	Transmission & Distribution Losses (%)	M=L/J	35.56%

2.2.9 MePDCL would like to request the Hon'ble Commission to kindly allow the actual T&D losses of 35.56% since the losses have increased on account of increased supply to rural areas and small LT domestic and KutirJyoti consumers and increase of LT:HT ratio. The HT sales are reducing on account of open access and the LT sales are increasing on account of rural electrification schemes and increased supply. As such, MePDCL requests the Hon'ble

Commission to reconsider the T&D losses and approve the actual T&D losses as shown above.

#### 2.3 Determination of Annual Revenue Requirement (ARR)

#### 2.3.1 Calculation Methodology

- 2.3.1.1 The Audited Statement of Accounts of MePDCL along with the other successor companies and the holding company, MeECL for FY 2014-15 are now available based on which, MePDCL has prepared the comparison of ARR sub components for FY 2014-15 and arrived at net Gap/ Surplus of the ARR components.
- 2.3.1.2 Since MeECL is a common holding company performing integrated common functions of all the three successor companies, the ARR of MeECL is to be shared by the three successor companies. As per the approach adopted by the Hon'ble Commission in its past Tariff Orders, MePDCL has considered equal allocations of ARR components of the holding company MeECL in the respective ARRs of the three successor companies. As such, the figures of each component of ARR of the distribution company have been arrived at by adding the respective figure from the accounts of MePDCL and one third of the respective figures from the accounts of MeECL.

#### 2.3.2 Components of Tariff

In accordance with the MSERC Tariff Regulations 2011, the ARR of Distribution Company shall comprise of following components:

- (1) Power Purchase Cost Including Transmission Charges
- (2) Operation and Maintenance Expenses
- (3) Interest on Loan Capital
- (4) Interest on Working Capital
- (5) Depreciation as may be allowed by the Commission
- (6) Return on Equity as may be allowed by the Commission
- (7) Taxes on Income.
- (8) Provision of bad and doubtful debts

#### 2.3.3 Power Purchase Cost

- 2.3.4 As provided earlier, MePDCL had procured power from Central generating stations, from generating stations of MePGCL as well as from other sources like exchange/bilateral/swapping etc. Since the power availability from the central generating stations and the generating stations of MePGCL was less than the approved figures, MePDCL had to resort to short term power purchase to meet the demand.
- 2.3.5 A comparison of source wise power purchase cost as per the Audited Accounts and approved Power Purchase Cost as per the Tariff Order for FY 2014-15 is shown in the

following table.

Table 4: Source wise Power Purchase Cost for FY 2014-15

		MSERC Approved			MePDCL Actuals		
SI. No	Source	Energy (MU)	Total Cost (Rs Cr)	Unit cost/kWh	Energy (MU)	Total Cost (Rs Cr)	Unit cost/kWh
	NTPC						
1	Farakka	57.84	21.97	3.80	35.64	14.12	3.96
2	Talchar	36.15	8.72	2.41	23.0	5.08	2.21
3	Kahalgaon I	30.36	11.56	3.81	18.40	5.87	3.19
4	Kahalgaon II	151.14	56.63	3.75	75.78	25.76	3.40
5	BTPS	-					
6	OTPC Palatana	275.22	75.41	2.74	263.63	66.12	2.51
	NEEPCO	-					
7	Kopili Stage I	85.02	8.66	1.02	60.89	4.53	0.74
8	Kopili Stage II	8.96	1.50	1.67	6.21	1.61	2.59
9	Khandong HEP	17.34	5.5	3.16	9.43	-2.7	-2.91
10	Free Power (6%of Kopili I, II &Khandong)	60.48			42.06		
11	RANGANADI HEP	127.95	40.03	3.13	120.06	47.06	3.92
12	DOYANG HEP	23.98	10.48	4.37	17.48	12.49	7.15
13	AGTPP	194.70	65.31	3.35	178.26	29.39	1.65
14	AGBPP	70.83	25.95	3.66	65.72	73.72	11.22
	Surcharge	-	=		-	64.62	
	NHPC						
17	Loktak	50.69	14.41	2.84	0.00	11.93	
	MePGCL						
18	Sonapani	5.00	0.74	1.48	5.70	0.77	1.35
19	Lakroh				0.00	0.00	
20	Umiam Stage-I	115.00	13.31	1.16	89.23	12.93	1.45
21	Umiam Stage II	45.00	7.4	1.64	45.68	7.6	1.67
22	Umiam Stage-III	138.00	22.18	1.61	112.28	20.44	1.82
23	Umiam Stage-IV	204.00	22.18	1.09	161.58	20.72	1.28
24	Umtru HEP	39.00	4.14	1.06	15.13	3.38	2.23
25	Myntdu <sub>-</sub> Leishka	480.0	135.54	2.82	406.31	125.26	3.08
	Other Charges to MePGCL		2.91				
	Short Term						
26	Mittal Processors Pvt. Ltd. (MPPL) – Swapping				232.19	5.14	0.22

		MSERC Approved			MePDCL Actuals		
SI. No	Source	Energy (MU)	Total Cost (Rs Cr)	Unit cost/kWh	Energy (MU)	Total Cost (Rs Cr)	Unit cost/kWh
27	Mittal Processors Pvt. Ltd. (MPPL) – Exchange				30.12	9.48	3.15
28	Meghalaya Power Ltd. (MPL) – Banking				14.72		0.00
29	NTPC VidyutVyapar Nigam Ltd.				6.34	0.67	1.06
30	Power Trading Corporation India Ltd (PTCIL) – Swapping				47.28	0.98	0.21
31	Unscheduled Interchange (UI)				20.60	7.41	3.60
32	Short Term Open Access Charges					3.65	
	Total	2216.66	554.50	2.50	2103.75	578.02	2.75

- 2.3.6 It may be observed from the above table that the total power purchase cost has increased as the average power purchase rate was more than the approved values. This increase was due to the increase in gas price based on the revision of gas Gol (Government of India) notification from June 2014 and also due to the higher quantum of power purchased from short term sources.
- 2.3.7 Since the Power Purchase Cost including Inter State Transmission Cost is legitimate and uncontrollable in nature, the Hon'ble Commission is requested to kindly approve the Power Purchase Cost as shown above while truing-up.
- 2.3.8 Regarding the RPO compliance, it is submitted that MePDCL has not purchased any power from solar and wind sources or purchased any non-solar RECs during FY 2014-15. However, it has procured enough surplus from other renewable sources (basically small hydro) and as such, it request Hon'ble Commission to waive of the RPO compliance for solar and wind.

#### 2.4 Transmission Charges

2.4.1 MePDCL is required to pay the inter-state transmission charges to PGCIL and the

- intra-state transmission charges to MePTCL. The former charges are determined by CERC and the latter one is determined by MSERC.
- 2.4.2 A comparison of the actual and approved transmission charges of FY 2014-15 is given below:

Table 5: Comparison of Transmission Charges for FY 2014-15 (INR Crore)

Sr. No.	Particulars	Approved in TO Dated 12.04.2014	Approved in TO Dated 31.04.2016	Actuals					
1	Inter-state transmission charges	61.82	137.50	64.78					
2	Intra state transmission charges	72.79	137.50	72.72					
	TOTAL	134.61	137.50	137.50					

2.4.3 Since the transmission charges are uncontrollable in nature for MePDCL, it is therefore requested before the Hon'ble Commission to kindly approve the transmission charge at Rs 137.50 Cr while truing-up.

#### 2.5 Operation and Maintenance Expenses (O&M Expenses)

- 2.5.1 Operations and Maintenance (O&M) Expenses of the Company consists of the following elements:
  - Repairs and Maintenance expenses: Repairs and Maintenance Expenses are incurred for the day to day upkeep of the assets of MePDCL and form an integral part of the Company's efforts towards reliable & quality power supply and reduction of losses in the system.
  - **Employee Expenses:** Employee expenses comprise of salaries, dearness allowance, bonus, terminal benefits in the form of pension & gratuity, leave encashment and staff welfare expenses.
  - Administrative and General Expenses: Administrative expenses mainly comprises of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.

#### 2.5.2 Repairs and Maintenance Expenses (R & M expenses)

2.5.2.1 Repair & Maintenance expenses are dependent on various factors such as age of assets, geography of state, load served, volume of infrastructure, etc. Most of the lines and substations of MePDCL are aged and thus demand more frequent Repairs and Maintenance. The assets of MePDCL are old and require regular maintenance

to ensure uninterrupted operations. MePDCL has been trying its best to ensure uninterrupted operations of the system and accordingly has been making necessary expenditure for R&M activities. The R&M Expenses incurred by MePDCL and one-third of that incurred by the holding company, MeECL is as shown below:

Table 6: R&M expenses for FY 2014-15 (INR Crore)

Particulars	MePDCL	MeECL/3	Total
Buildings	0.36	0.00	0.36
Plant & Machinery	0.82	0.00	0.83
Hydraulics Work	0.01	0.00	0.01
Civil Works	0.26	0.00	0.26
Lines & Cables	4.04	0.00	4.04
Vehicles	0.31	0.02	0.33
Furniture & Fixture	0.04	0.01	0.06
Office equipment	0.27	0.03	0.30
Total	6.11	0.07	6.18

2.5.2.2 The summary of the comparison of the actual R&M expenses for FY 2014-15 vis-à-vis the expenses approved by the Hon'ble Commission has been given in the table below:

Table 7: True up of R&M expenses for FY 2014-15 (INR Crore)

Particulars	Approved in TO Dated 12.04.2014	Approved in TO Dated 31.04.2016	Actuals
R&M Expenses	8.41	7.39	6.18

2.5.2.3 MePDCL requests the Hon'ble Commission to approve this gain and appropriately share the corresponding benefits with MePDCL and the consumers in accordance with MSERC Tariff Regulations 2011.

#### 2.5.3 **Employee Expenses**

2.5.3.1 The employee expense incurred by MePDCL and the share of MeECL to be borne in FY 2014-15 as per the audited Statement of Accounts is as shown below:

Table 8: Employee expenses for FY 2014-15 (INR Crore)

Employee Expense	MePDCL	MeECL/3	Total
Salaries and wages	83.56	1.98	85.54
Contributions to provident and other funds	20.32	2.23	22.55
Staff welfare expenses	0.06	0.00	0.06
Total	103.93	4.22	108.15

2.5.3.2 The summary of the comparison of the actual Employee Expenses for FY 2014-15 vis-à-vis the expenses approved by the Hon'ble Commission has been given in the table below:

Table 9: True up of Employee Expenses for FY 2014-15 (INR Crore)

Particulars	Approved in TO Dated 12.04.2014	Approved in TO Dated 31.04.2016	Actuals
Employee Cost	111.00	103.56	108.15

2.5.3.3 The actual employee expenses incurred is slightly less than the approved figures for FY 2014-15. Employee expense being a controllable expense as per the MSERC Tariff Regulations, 2011, the petitioner prays before the Commission to allow this gain to be shared as per the provisions of the Regulations.

#### 2.5.4 Administration and General Expenses (A & G Expenses)

2.5.4.1 The A & G expenses incurred by MePDCL and the share of MeECL to be borne in FY 2014-15 as per the audited Statement of Accounts is as shown below:

Table 10: A&G Expenses for FY 2014-15 (INR Crore)

Particulars	MePDCL	MeECL/3	Total
Insurance	0.03	0.55	0.58
Rent, Rates and Taxes	0.03	0.02	0.05
Telegram, Postage, Telegraph and Telex charges	0.11	0.02	0.13
Training and conveyance	5.14	0.15	5.29
Printing and stationery	0.37	0.02	0.39
Payments to auditors	0.06	1.19	1.25
Consultancy Charges	0.97	0.00	0.97
Technical fees	0.00	0.00	0.00
Books & Periodicals	0.01	0.00	0.01
Fees & Subscription	0.00	0.06	0.07
Advertisement	0.08	0.00	0.08
Electricity Charges	0.00	0.00	0.00
Legal and professional	0.99	0.09	1.08
Water Charges	0.00	0.00	0.00
Entertainment	0.00	0.00	0.00
Other Purchase Related Expenses	0.56	0.01	0.56
Miscellaneous expenses	0.02	0.00	0.02
Demolition &Decommissin Expenses	0.00	0.00	0.00
Payments to auditors	0.00	0.01	0.01
Stipend, Training expenses	0.07	0.01	0.08
Water Charges	0.00	0.00	0.00
Entertainment	0.00	0.01	0.01
Lab Testing	0.00	0.00	0.00

Particulars	MePDCL	MeECL/3	Total
Freight & Forwarding	0.00	0.00	0.00
Total	8.44	2.15	10.60

2.5.4.2 The summary of the comparison of the actual A&G Expenses for FY 2014-15 vis-à-vis the expenses approved by the Hon'ble Commission has been given in the Table below:

Table 11: True up of A&G Expenses for FY 2014-15(INR Crore)

Particulars	Approved in TO Dated 12.04.2014	Approved in TO Dated 31.04.2016	Actuals
A&G Expenses	7.61	10.39	10.60

- 2.5.4.3 It is submitted that the A & G Expenses depend on many factors such as inflation rate, expansion of business, types of trainings conducted, travel and conveyance of employees etc. MePDCL has tried its best to control the A&G expenditure within the limits approved by the Hon'ble Commission but it is not practically possible to limit all components of A&G expenses primarily on account of increases on account of inflation and business expansion especially, for a newly incorporated company as it has to undergo additional expenditure on account of training and consultancy services, which is essential for its capacity building and meeting its various compliances as a newly incorporated distribution company.
- 2.5.4.4 As such, MePDCL requests the Hon'ble Commission to treat the increase in A&G expense as uncontrollable and pass the entire gap as recoverable from consumers.

#### 2.6 Depreciation

2.6.1 Depreciation as booked in the Statement of Accounts for FY 2014-15 for MePDCL and the apportioned amount of MeECL for various classes of assets is shown below:

Table 12: Depreciation for FY 2014-15 (INR Crore)

Asset Class	MePDCL	MeECL/3	Total
Land and land rights	0.00	0.00	0.00
Buildings	0.14	0.09	0.23
Hydraulic Works	0.00	0.00	0.00
Others Civil Works	0.08	0.01	0.09
Plant and Machinery	1.62	0.01	1.62
Lines and Cable Network	12.64	0.00	12.64
Vehicles	0.00	0.06	0.06
Furniture and Fixtures	0.03	0.02	0.05
Office Equipment	0.08	0.03	0.11
Less: Amortization of Assets Created out of Grants	4.63	0.00	4.63
TOTAL	9.96	0.22	10.19

2.6.2 Following table shows the comparison of the actual Depreciation vis-à-vis the Depreciation approved by the Hon'ble Commission in its various tariff orders for FY 2014-15.

Table 13: True up of Depreciation for FY 2014-15 (INR Crore)

Particulars	Approved in TO Dated 12.04.2014	Approved in TO Dated 31.04.2016	Actuals
Depreciation	4.37	1.73	10.19

- 2.6.3 MePDCL would like to submit that during the time of approval of ARR of FY 2014-15, the segregated account statements for the new successor companies were not available and as such, the figures were calculated on a provisional basis. Now, since the audited statement of accounts are available, the true up is being done based on the actuals.
- 2.6.4 It is submitted that the component wise depreciation is computed as per the provisions of Tariff Regulations, 2011 and the detail is shown in Note 11 of the Audited Statement of Accounts. The depreciation rates and useful life each asset has been considered strictly as provided for in the Tariff Regulations, 2011 and the schedule of the same has been annexed herewith as **Annexure F**. In addition to this, it is submitted that the average value of assets funded through grants and consumer contribution as per accounts is INR 102.46 crores as per audited statement of accounts. As against this, the Commission in its provisional truing up order for FY 2014-15, had assumed that 90% of the assets are funded by grants and as such, allowed only 10% of the depreciation calculated on the total average GFA (Gross Fixed Assets) as per the provisional accounts
- 2.6.5 Therefore, based on the above submissions, the petitioner prays before the Hon'ble Commission to kindly approve the Depreciation as shown above based on the Audited Statement of Accounts.

#### 2.7 Interest and Financial Charges

2.7.1 It is submitted that the actual interest cost of Rs. 26.03 Crore of Interest & Finance Charges pertains to project loan for schemes like RGGVY, R APDRP and other State Government schemes. The following table shows the summary of the comparison of the actual Interest and Finance Charges for FY 2014-15 vis-à-vis the Interest and Finance Charges approved by the Hon'ble Commission.

Table 14: True up of Interest and Finance Charges for FY 2014-15 (INR Crore)

•		<u> </u>	,
Particulars	Approved in TO Dated	Approved in TO	Actuals
	12.04.2014	Dated 31.04.2016	Actuals

Interest and finance charges	12.40	6.59	26.03

2.7.2 It is submitted that Interest & Finance Charges are genuine and legitimate expenditure and the Hon'ble Commission may kindly approve the entire interest & finance charges as shown above, as per Audited Accounts.

#### 2.8 Interest on Working Capital

- 2.8.1 Working capital requirement for a distribution utility in Meghalaya is determined on a normative basis by the Regulation 104 of MSERC Tariff Regulations, 2011.
- 2.8.2 Now, based on the actual data for the components of working capital, the interest on working capital is computed below:

Table 15: Computation of Interest on Working Capital for FY 2014-15

Particulars	Amount
O&M for 2 Months (INR Crore)	20.82
Maintenance Spares (INR Crore)	3.38
Receivables for 2 Months (INR Crore)	140.28
Total (INR Crore)	164.48
Interest Rate (%)	14.75%
Interest on Working Capital (INR Crore)	24.26

2.8.3 The comparison of Interest on Working Capital for FY 2014-15 based on actual figures vis-à-vis that approved by the Honorable Commission is shown below:

Table 16: True up of Interest on Working Capital for FY 2014-15 (INR Crore)

Particulars	Approved in TO Dated 12.04.2014	Approved in TO Dated 31.04.2016	Actuals
Interest on Working Capital	23.03	13.70	24.88

2.8.4 The petitioner therefore, prays before the Honorable Commission to kindly approve the same and allow the difference to be passed on to the consumers.

#### 2.9 Other Debits (including provision for Bad Debts)

2.9.1 A summary of the comparison of the actual Other Debits (including provision for Bad Debts) for FY 2014-15 vis-à-vis the Other Debits (including provision for Bad Debts) approved by the Hon'ble Commission has been given in the table below:

Table 17: Other Debits (including provision for Bad Debts) for FY 2014-15 (INR Crore)

Particulars	Approved in TO Dated 12.04.2014	Approved in TO Dated 31.04.2016	Actuals
Provision for bad debts	0.15	0.00	(1.05)

- 2.9.2 It is submitted that there has been some recovery of old receivables (previously written off) from consumers and hence there is a negative amount in the books of accounts of MePDCL.
- 2.9.3 The petitioner, therefore prays before the Honorable Commission to kindly consider the same and allow the gain to be shared between the consumers and the petitioner as per the provisions of the Regulations.

#### 2.10 Prior Period Expense

2.10.1 It is submitted that the Accounting Standard 5 (AS 5) issued by Institute of Chartered Accounts of India deals with the Net Profit/Loss for the Period, Prior Period Items and Changes in Accounting Policies. Prior period items are material charges or credits which arise in the current period as a result of errors or omissions in the preparation of the financial statements of one or more prior periods. The following Table provides the details of the Prior Period Expenses as a net of MePDCL and apportioned amount from MeECL for FY 2014-15.

Table 18: Net prior period Expense for FY 2014-15 (INR Crore)

Particulars	Approved in TO Dated 12.04.2014	Approved in TO Dated 31.04.2016	Actuals	
Prior Period Charges / (Credits)	0.00	0.00	67.71	

2.10.2 The disclosure of Prior Period items is in line with the Accounting Standard (AS)-5 on Prior Period and Extraordinary Items, which emphasizes that Prior period items should be separately disclosed in the current statement of profit and loss together with their nature and amount; and in a manner that their impact on current profit or loss can be perceived. Therefore prior period items which are necessary for smooth functioning of the company are pertaining to the previous financial year but recognized during current year and hence are of uncontrollable nature. The details of prior period items are provided below:

Particulars	Amount in INR
Expenses	
Short Provision for Power Purchase & Wheeling charges	774,230,991
Employee costs	765,899
Depreciation under provided in previous year	-
Interest & Other Finance Charges	-
Administrative Expenses	600.00
Others	-
Excess provision on Interest accrued	9,758,031.00
	784,755,521
Incomes	
Receipt from consumers	-
Excess provision for interest & other finance charges	74,319,941
Other excess provision	32,719,699

	107,039,640
Total	677,715,880

2.10.3 Therefore, it is prayed before the Honorable Commission to kindly approve the same and pass it on as an uncontrollable expenditure.

#### 2.11 Return on Equity

2.11.1 It is submitted that the return on equity is computed as per Regulation 100 and 101 of the Tariff Regulations, 2011. The relevant provisions are reproduced below:

#### "100. Debt-equity Ratio

(1) For the purpose of determination of tariff, the debt-equity ratio of 70:30 will be applied for all new investments during the financial year. Where equity employed is more than 30%, 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%, the actual equity shall be considered.

Provided that the Commission may, in appropriate case, consider equity higher than 30% for the purpose of determination of tariff, where the distribution 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.

(2) The debt and equity amounts in accordance with clause (1) above shall be used for calculating interest on loan, return on equity, advance against depreciation and foreign rate variation.

#### 101. Return on Equity (RoE)

(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 100, at a fixed rate of 14 percent, per annum.

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 difference in actual exchange rate and the provisional exchange rate considered while determining the ARR shall be taken into consideration at the time of 'Truing up'.

(2) The equity amount appearing in the audited Balance Sheet or as per Transfer Scheme Notification will be taken into account for the purpose of

calculating the return on equity for the first year of operation, subject to such modifications as maybe found necessary upon audit of the accounts if such a Balance Sheet was not audited.

.....

Emphasis added"

2.11.2 As per the above provisions of Tariff Regulations, 2011, the computation of Return on Equity is shown below:

	rable 15: The up of flotain on Equity for 1 201 (in the order)							
Sr. No.	Particulars	Approved in TO Approved in TO Approved in TO Dated 12.04.2014 Dated 31.04.2		Actuals				
1	Opening Equity for the Year		67.33	786.40				
2	Closing Equity for the Year	67.33	67.33	801.20				
3	Average Equity for the Year	67.33	67.33	793.80				
4	Rate of return	14%	14%	14%				
5	Return on Equity	9.43	9.43	111.13				

Table 19: True up of Return on Equity for FY 2014-15 (INR Crore)

2.11.3 It is therefore prayed before the Honorable Commission to kindly approve the RoE for FY 2014-15 as computed above based on the actual equity components as per the Audited Statement of Accounts.

#### 2.12 Other Income

2.12.1 A summary of the comparison of other income as per Audited Accounts of MePDCL for FY 2014-15 vis-à-vis the other income approved by the Hon'ble Commission has been given in the table below:

Table 20: Other Income in FY 2014-15 (INR Crore)

Sr. No.	Particulars	Approved in TO Dated 12.04.2014	Approved in TO Dated 31.04.2016	Actuals
1	Non-Tariff Income	40.00	61.16	74.10
2	Income from Cross Subsidy Surcharge	5.77	61.16	74.10
3	RE Subsidy	20.00	110.79	110.16
5	TOTAL	65.77	171.95	184.26

2.12.2 It is submitted that MePDCL has been able to increase its Other Income in FY 2014-15 from the approved limits of the Hon'ble Commission. Since, Other Income are controllable in nature, MePDCL requests the Hon'ble Commission to consider this as gain and appropriately share the benefits of the gain with MePDCL and the

consumers in accordance with MSERC Tariff Regulations 2011.

#### 2.13 Revenue from Sale of Power

2.13.1 A summary of the comparison of revenue from sale of power as per Audited Accounts of MePDCL for FY 2014-15 vis-à-vis the revenue from sale of powerapproved by the Hon'ble Commission has been given in the table below:

Table 21: Revenue from sale of power in FI 2014-15 (Rs. Cr)

Particulars	Approved in TO Dated 12.04.2014	Approved in TO Dated 31.04.2016	Actuals
Revenue from sale of power within state	619.63	550.85	498.09
Revenue from sale of short term surplus power outside state	184.74		52.76
TOTAL	804.37	550.85	550.85
Units sold within state	1149	-	1040.93
Units sold outside state	594.11	-	457.12

2.13.2 It is submitted that the reduction in the revenue is because of the reduced amount of units sold both within the state and outside state and the change in sales mix within the state, which is uncontrollable. Further, it is pertinent to note that out of 457.12 MUs sold outside the state, 334.62 MUs are through swapping which is adjusted with power purchase during different time period. As such, there is no significant revenue earned from the power sold under swapping. As such, the Commission is requested to consider this aspect while allowing the actual revenue from sale of surplus power outside the state. Also, the per unit income sale of power through trading/UI is dependent on the market and the same is uncontrollable for MePDCL. As such, MePDCL requests the Hon'ble Commission to allow the revenue as per the audited statement of accounts.

#### 2.14 Aggregate Technical & Commercial (AT & C) Losses

- 2.14.1 The total revenue billed for sale of power <u>within the state</u> (inc. sale to Assam at 11 kV) is Rs. 498.09 crores which **excludes** the Electricity Duty billed and the revenue from sale of power outside state.
- 2.14.2 The revenue collected and AT&C loss for FY 2014-15 is calculated as shown below. It is clear from the figures that actual AT&C loss in FY 2014-15 has significantly decreased from the AT&C loss of FY 2013-14 as considered by the Commission. As such, there is no penalty applicable for FY 2014-15 in accordance with MSERC Tariff Regulations 2011.

Table 22: Revenue Collection for FY 2014-15 (INR Crore)

· · · · · · · · · · · · · · · · · · ·	
Particulars (MePDCL)	Amount
Opening balance of receivables from sale of power within the state	218.93
Revenue from sale of power within the state in FY 2014-15	498.09
Total	717.02
Less: Closing balance of receivables from sale of power within the state	233.36
Revenue realized in FY 2014-15 from sale of power within the state	483.66
Collection Efficiency	97.10%
T&D losses	35.56%
AT&C Losses	34.53%
AT&C loss considered by the Hon'ble Commission for FY 2013-14 in its order dated 30 <sup>th</sup> March 2016	42.16%

#### 2.15 Aggregate Revenue Requirement and Revenue Gap/Surplus for FY 2014-15

- 2.15.1 The above section details the actual expense and revenue components along with the difference from the same with the approved figures of MSERC. The explanation for the difference in each of the component has also been provided as required.
- 2.15.2 MePDCL has also submitted the justification of each component being controllable or uncontrollable on part of MePDCL. It is proposed that the difference in uncontrollable elements be passed entirely to consumers, both for surplus and gain. Similarly, for the controllable elements, it is proposed that the 35% of the gain should be passed to the consumers and the rest should be allowed to be retained by MePDCL as per the MSERC Tariff regulations 2011. In case of gap/loss for controllable elements, entire loss is supposed to be retained by MePDCL as per MSERC Tariff Regulations 2011. The relevant clauses of MSERC Tariff Regulation is shown below:

#### "13. Sharing of Profits and Losses

- 13. 1 The Commission shall -
- (1) cause the generating company or the licensee, as the case may be, to pass on 35 percent of the profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, to Consumers, by adjustment in the next years ARR and consequential distribution tariff rates;
- (2) allow the generating company or the licensee to retain 35 percent of the profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, for their organization; and
- (3) cause the generating company or licensee as the case may be to deposit the remaining 30 percent of such profit or gain arising from over achievement of the norm laid down by the Commission or targets set by the Commission, from time to time, into a Contingency Reserve Fund which should be operated in a manner

specified by the Commission for such purpose. No amount from such contingency reserve fund may be drawn without the prior written approval of the Commission, which may be granted on the arising of such contingency conditions as may be specified by the Commission, through issue of suitable guidelines for such purpose;

- 13.2 The generating company or the licensee, as the case may be, shall bear the entire loss on account of its failure to achieve the norms laid down by the Commission or targets set by the Commission from time to time, unless it can satisfy the Commission that such losses were incurred after complying with the provisions of these regulations and such Orders as may have been passed by the Commission, for reason which are well beyond normal human control."
- 2.15.3 Based on the above clause, the table below summarizes the Aggregate Revenue Requirement and Revenue Gap/Surplus for FY 2014-15 over and above the figures approved by the Honorable Commission in the provisional true up orders dated 31.03.2016:

Table 23: Aggregate Revenue requirement and Revenue Gap/(Surplus) for FY 2014-15 (INR Crore)

Particulars	MSERC Approved vide TO dated 12.04.2014	MePDCL Actuals	Loss/ (Gain)	Gain to be retained by MePDCL	Deposit in Contingency Reserve	Net Loss/ (Gain) to be passed on to consumers
Power Purchase Cost	554.50	578.02	23.52	-	-	23.52
Cost to meet RPO Obligations	3.86	-	(3.86)	-		(3.86)
Transmission Charges (PGCIL)	61.82	64.78	2.96	-	-	2.96
Transmission Charges (MePTCL)	72.79	72.72	(0.07)	-		(0.07)
Employee Expenses	111.00	108.15	(2.85)	1.00	0.85	1.00
Repair & Maintenance Expenses	8.41	6.18	(2.23)	0.78	0.67	0.78
Administration & General Expenses	7.62	10.60	2.98	-	-	2.98
Depreciation	4.37	10.19	5.82	-	-	5.82
Interest on Loan	12.40	26.03	13.63	-	-	13.63
Interest on Working Capital	23.03	24.26	1.23	-	-	1.23
Other Debits (Incl Provisions for Bad Debts)	0.15	(1.05)	(1.20)			(1.20)
Prior Period Charges /(Credits)	-	67.71	67.71	-	-	67.71
Income Tax	-	-	1	-	-	-
Net Revenue Expenditure	859.95	967.59	107.64			
Add: Return on Equity Capital	9.43	111.13	101.70	-	-	101.70
Aggregate Revenue Requirement	869.38	1,078.72	209.34			
Less: Non-Tariff Income	40.00	74.10	(28.33)	9.92	8.50	9.92

Particulars  Less: Cross subsidy surcharge	MSERC Approved vide TO dated 12.04.2014	MePDCL Actuals	Loss/ (Gain)	Gain to be retained by MePDCL	Deposit in Contingency Reserve	Net Loss/ (Gain) to be passed on to consumers
			()			(22.2)
R.E. Subsidy	20.00	110.16	(90.16)			(90.16)
Revenue from sale of power outside state	184.74	52.76	131.98			131.98
Revenue from Sale of Power within state	619.63	498.09	121.54	-	1	121.54
Net Gap / (Surplus)	(0.76)	343.61	344.37	11.69	10.02	389.47

2.15.4 However, an amount of Rs. 16.29 Crore has been approved by the Honorable Commission as provisional true up of FY 2014-15 vide its tariff orders dated 31.03.2016 and therefore, the balance amount to be passed on is computed as under:

Table 24: Gap from True up of FY 2014-15 to be passed on to ARR of FY 2017-18 (INR Crore)

Particulars	Amount
Gap for FY 2014-15 after final True Up	389.47
Gap for FY 2014-15 approved in Provisional True Up	16.29
Balance Gap / (Surplus)	373.18

2.15.5 MePDCL humbly request the Hon'ble Commission to pass through gap of INR 373.18 Crore under the truing up of FY 2014-15 and pass through the same in the ARR of FY 2017-18. MePDCL would like to retain a gain of around Rs. 11.69 Crores around Rs. 10.02 Crore shall be invested by MePDCL in a contingency reserve fund.

#### 3 Provisional True Up of FY 2015-16

#### 3.1 Background

- 3.1.1 As mentioned earlier, MePDCL has finalized the accounts of FY 2015-16, but the same are yet to be audited by the statutory auditors and as such are provisional at the present. In order to avoid delay in determination of revised tariff for FY 2017-18, MePDCL is currently carrying out the provisional truing up of FY 2015-16 vide the present petition. The gap/surplus calculated based on this provisional truing up would be added along with the gap/surplus calculated in the final true up of FY 2014-15, to the ARR of FY 2017-18.
- 3.1.2 However, MePDCL is making all efforts to obtain the audited Statement of Accounts of FY 2015-16 at the earliest and submit the same before the Hon'ble Commission. Till such time, MePDCL requests the Hon'ble Commission to kindly consider the truing up figures based on provision accounts, as provided in the present petition.
- 3.1.3 The summary of provisional truing up of MePDCL for FY 2015-16 is as shown in the table below along with the gap/surplus to be passed on to the consumers as per the MSERC MYT Regulations, 2014:

Table 25: Gap from Provisional True up of FY 2015-16 to be passed on to ARR of FY 2017-18 (INR Crore)

Particulars	MePDCL Actuals	Approved in TO dated 31.03.2015	Loss/ (Gain)	Gain to be retained by MePDCL	Deposit in Contingency Reserve	Net Loss/ (Gain) to be passed on to consumers
Power Purchase Cost	531.82	539.78	(7.96)	-	-	(7.96)
Transmission Charges (PGCIL)	86.17	55.00	31.17	-	-	31.17
Transmission Charges (MePTCL)	78.12	78.12	-	-	-	-
Employee Expenses	124.18	83.00	41.18	-	-	41.18
Repair & Maintenance Expenses	3.67	5.77	(2.10)	0.74	0.63	(0.74)
Administration & General Expenses	8.10	55.00	(46.90)	16.42	14.07	(16.42)
Depreciation	10.30	4.88	5.42	-	-	5.42
Interest on Loan	34.19	12.44	21.75	-	-	21.75
Interest on Working Capital	23.36	17.35	6.01	-	-	6.01
Other Debits (Incl Provisions for Bad Debts)	(5.21)	3.00	(8.21)	2.87	2.46	(2.87)
Prior Period Charges /(Credits)	1.02	-	1.02	-	-	1.02
Income Tax	-	-	-	-	-	-
Return on Equity	112.81	9.43	103.38	-	-	103.38
Total Revenue Requirement	1,008.54	863.77				
Less: Non-Tariff Income	85.07	58.00	(17.21)	6.02	5.16	(6.02)
Less: Cross subsidy surcharge	65.07	9.86	(17.21)	6.02	5.16	(6.02)
Less: R.E. Subsidy	14.53	17.50	2.97	-	-	2.97
Less: Subsidy against Power Purchase	6.33	-	(6.33)	-	-	(6.33)
Less: R.E. Subsidy Against Loss On Account Of Flood, Fire Cyclone etc.	2.35	-	(2.35)	-	-	(2.35)
Less: Revenue Grant for Other Expenditure	0.51	-	(0.51)	-	-	(0.51)
Less: Sale of Surplus Power	106.11	186.50	80.39	-	-	80.39
Less: Revenue from Sale of Power	553.26	618.00	64.74	-	-	64.74
Net Gap / (Surplus)	240.37	(26.09)	266.46	26.05	22.33	314.84

- 3.1.4 The major variation between the actual and approved figures is in the case of Return on equity since the Honorable Commission had considered a normative equity capital of Rs.202 Crore for all the utilities while projecting the Return on Equity whereas the actual figures based on the Statement of Accounts is much higher.
- 3.1.5 It may also be noted that there has been a substantial increase in the employee costs owing to the revision of pay of the employees, as explained in the subsequent sections.
- 3.1.6 MePDCL therefore, based on the above submissions, humbly requests the Hon'ble Commission to pass through gap as computed above under the provisional truing up of FY 2015-16 in the ARR of FY 2017-18. MePDCL would like to retain a gain (from controllable factors) of around Rs. 26.05 Crores and shall invest Rs. 22.33 Crore in a contingency reserve fund as provided for in the Regulations.

# 4 Mid Term Review of 1<sup>st</sup> MYT Control Period and Revision of ARR for FY 2017-18

#### 4.1 Background

- 4.1.1 The Honorable MSERC, on 15.03.2015 had passed the Orders for Multi Year Aggregate Revenue Requirement (ARR) for the 1<sup>st</sup> MYT Control Period FY 2015-16 to FY 2017-18 and Retail Supply Tariff for the first year of the Control Period i.e. FY 2015-16.
- 4.1.2 Subsequently, the Honorable MSERC had passed the Tariff Orders for FY 2016-17 on 31.03.2016 based on the ARR approved in the MYT Order and True up of the previous years. The ARR for the Control Period as approved by the Honorable Commission in the said Orders is as shown below:

Table 26: Approved ARR for the Control Period (in INR Crore)

SI.No.	Item of expenditure	FY 2015-16	FY 2016-17	FY 2017-18
		(Approved)	(Approved)	(Approved)
1	Cost of Power Purchase	539.78	605.57	657.22
2	Inter-State Transmission Charge	55	58	61
3	MePTCL	78.12	83.29	87.56
4	Employee Costs	83	90	98
5	R&M expenses	5.77	6.29	6.86
6	A&G Expenses	55	59	64
7	Depreciation	4.88	8.36	9.45
8	Interest on Loan Capital	12.44	15.81	19.17
9	Interest on Working Capital	17.35	17.9	18.35
10	Return on equity	9.43	9.43	9.43
11	Income Tax	-	-	-
12	Provision for bad and doubtful debt	3	3	3
13	Total Revenue requirement	863.77	956.65	1034.04
14	Less: Non tariff income	58	58	58
15	Less: Cross Subsidy Surcharge	9.86	9.86	9.86
16	Less: RE Subsidy	17.5	17.5	17.5
	Less : Sale of surplus power	186.5	247.7	289.5
	Net Revenue requirement for control period	591.9	623.5	659.2

4.1.3 Now, MePDCL files the present petition for the mid-term Review of the Control Period along with revision of ARR and determination of Retail Supply Tariff rates for FY 2017-18 along with the true up of FY 2014-15 and provisional true up of FY 2015-16 as mentioned in the previous sections.

#### 4.2 Components of Tariff and Projection Methodology

4.2.1 In accordance with the MSERC Multi Year Tariff Regulations 2014, the ARR of Distribution Company shall comprise of following components:

- (1) Power Purchase Cost Including Transmission Charges
- (2) Operation and Maintenance Expenses
- (3) Interest on Loan Capital
- (4) Interest on Working Capital
- (5) Depreciation as may be allowed by the Commission
- (6) Return on Equity as may be allowed by the Commission
- (7) Taxes on Income.
- (8) Provision of bad and doubtful debts
- 4.2.2 The trend of each of the above components of tariff have been individually analyzed in accordance with the MSERC Multi Year Tariff Regulations 2014 and have been projected for FY 2017-18 using suitable assumptions as explained in the subsequent sections.

# 4.3 Energy Balance for the Control Period

4.3.1 Based on the actual figures of power availability, losses and power sale in FY 2015-16, the energy balance for the entire Control Period is drawn as shown in the following table:

Table 27: Energy Balance for the 1st MYT Control Period

SI.			2015-16	2016-17	2017-18
No.	Particulars	Calculation	(Actuals)	(Estimated)	(Projected)
1	Power purchased from the Eastern Region (ER)	А	0.00	0.00	0.00
2	Inter-state transmission loss for ER	В	2.30%	2.30%	2.30%
3	Net power purchased from the ER	C=A*(1-B)	0.00	0.00	0.00
4	Power purchased from the North - Eastern Region (NER)	D	923.52	826.07	1374.79
5	Inter-state transmission loss for NER	E	3.48%	3.48%	3.48%
6	Net power available at state bus from external sources on long term	F=(C+D)*(1- E)	891.38	797.32	1,326.94
7	Power purchased from generating stations within the state	G	977.96	998.29	1016.89
8	Power purchased from other sources	Н	435.44	366.32	230.00
	Total Availability at MePDCL Periphery	I=F+G+H	2304.78	2161.93	2573.83
9	Power to be sold to consumers within the state (including ASEB)	J	1,058.32	1,122.74	1,202.52
10	Transmission & Distribution Losses (%)	К	35.95%	32.95%	29.95%
11	Net power requirement at state bus for sale of power within the state	L=J/(1-K)	1,652.33	1,674.49	1,716.66
12	Surplus Power (for sale outside state)	M = I - L	652.45	487.45	857.17

4.3.2 MePDCL humbly prays to the Honorable Commission to kindly approve the Energy Balance as shown above.

#### 4.4 Power Purchase Cost

- 4.4.1 MePDCL sources its power mainly through long term PPA with the following
  - a. MePGCL
  - b. NTPC
  - c. NHPC
  - d. NEEPCO
  - e. OTPC
- 4.4.2 Apart from these, in order to meet short term peak demands, it also procures some amount of power from the various energy exchanges.
- 4.4.3 The quantum and price of power purchase for FY 2017-18 have been projected based on the actual and expected figures of FY 2015-16 and FY 2016-17 respectively with the following considerations from each generating station:

**MePGCL:** The Annual Fixed Charges (AFC) of each plant has been considered as the power purchase cost from MePGCL. The cost of procurement of power from MePGCL is projected considering nominal yearly increase of 5% on the approved cost of FY 2015-16. For Leshka, the costs have been assumed based on the latest tariff petition filed before the Hon'ble Commission. The Commission is requested to consider the same or the approved values of tariff of Leshka based on the tariff petition filed by MePGCL for the purpose of mid term review.

**NTPC:** The 1<sup>st</sup> Unit of NTPC Bongaigaon Thermal Power Station has been commissioned on 01.04.2016 and the cost of power purchase from this station has been projected as per its actual share allocation to Meghalaya at the rates on which NTPC is currently billing MePDCL. Further, second unit of NTPC Bongaigaon is expected to be commissioned by June' 2017 and the same has been considered in power purchase projections for FY 2017-18. It is submitted that the power purchase cost of MePDCL has increased substantially with the commissioning of NTPC Bongaigaon and as such the same should be considered in the review of the ARR for the control period.

**NHPC:** The PPA of MePDCL with NHPC Loktak has expired on 01.04.2016 which has been taken into due consideration and no power purchase has been projected in FY 2017-18 from the station.

**NEEPCO:** Owing to non-payment of dues, NEEPCO has imposed power regulation for a considerable portion of FY 2016-17. However, MePDCL expects to clear all the dues of NEEPCO and will again be able to draw power at full allocation in FY 2017-18.

**OTPC:** The power purchase cost from OTPC Palatana Generating Station has been projected based on the actual figures of FY 2015-16.

**Other Sources:** Since the sources of power procurement of MePDCL are predominantly Hydel based, the availability of power depends on rainfall. It has been observed that in the past, MePDCL had to depend on short term sources of power during the dry seasons and

- accordingly projections have been made for power purchase from short term sources in FY 2017-18.
- 4.4.4 The actual power purchase cost in FY 2015-16 as per the pre-audited Statement of Accounts is as shown below:

Table 28: Power Purchase Cost (Actuals) in FY 2015-16

		DIE 20. 1 OW	Variable	Total	Total	10		Unit
S.N	Source	Energy received (MU)	Cost (Ps. / Unit)	Variable Cost (Rs. Cr.)	Fixed Cost (Rs. Cr.)	Others	Total Cost (5+6+7)	Cost (Rs. / kWh)
1	2	3	4	5	6	7	8	9
1	MePGCL							
	a) Umiam Stage-I HEP	112.87	66.01	7.45	7.61		15.06	1.33
	b) Umiam Stage-II HEP	57.88	92.09	5.33	4.23		9.56	1.65
	c) Umiam Stage-III HEP	116.66	91.03	10.62	12.68		23.30	2.00
	d) Umiam Stage-IV HEP	183.79	60.99	11.21	12.68		23.89	1.30
	e) Sonapani	6.24	91.35	0.57	0.46		1.03	1.65
	f) Umtru HEP	1.38	57.97	0.08	2.37		2.45	17.75
	g) Myntdu-Leishka HEP	443.02	141.51	62.69	67.77		130.46	2.94
2	NTPC							
	a) Faraka STPS					-0.17	-0.17	
	b) Kahalgaon STPS - I					-0.18	-0.18	
	c) Kahalgaon STPS -II					-1.10	-1.10	
	d) Talcher STPS - I					-0.08	-0.08	
3	NHPC							
	a) Loktak HEP	1.69	171.60	0.29	4.36	5.91	10.56	62.49
4	NEEPCO							
	a) Kopili HEP	76.61	39.94	3.06	3.81	6.83	13.70	1.79
	b) Kopili - II HEP	7.23	94.05	0.68	0.72	-0.45	0.95	1.31
	c) Khandong HEP	18.51	66.99	1.24	2.26	0.16	3.66	1.98
	d) Ranganadi HEP	151.59	118.81	18.01	22.51	5.09	45.61	3.01
	e) Doyang HEP	17.66	208.38	3.68	4.66	2.59	10.93	6.19
	f) AGBPP	199.01	231.14	46.00	30.67	3.89	80.56	4.05
	g) AGTPPCC	90.57	234.96	21.28	10.59	2.82	34.69	3.83
	h) Free Power	56.12	0.00				0.00	0.00
	Surcharge					79.89	79.89	
5	ОТРС							
	a) Pallatana	360.65	129.27	46.62	54.17	10.83	111.62	3.09
6	Other sources							
	a) Deviation (UI)							
	i) Inter Region	8.82	80.50	0.71		1.05	1.76	2.00
	ii) Intra Region	7.16	-205.31	-1.47			-1.47	-2.05
	b) Market (IEX)							
	i) MPPL	23.04	244.36	5.63			5.63	2.44
	c) Swapping							

S.N	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs. Cr.)	Total Fixed Cost (Rs. Cr.)	Others	Total Cost (5+6+7)	Unit Cost (Rs. / kWh)
	i) MPPL	272.74	27.21	7.42		0.04	7.46	0.27
	ii) NVVN	1.48	47.30	0.07		0.04	0.11	0.74
	iii) PTC India Limited	78.97	26.09	2.06		0.27	2.33	0.30
	iv) MPL	34.74					0.00	0.00
	v) ACL	8.49					0.00	0.00

# 4.4.5 The estimated power purchase cost for FY 2016-17 is as shown below:

Table 29: Power Purchase Cost (estimated) for FY 2016-17

		Energy	Variable	Total	Total		Total	Unit
S.N	Source	received	Cost	Variable	Fixed	Others	Cost	Cost
		(MU)	(Ps. /	Cost	Cost		(5+6+7)	(Rs. /
	•		Unit)	(Rs. Cr.)	(Rs. Cr.)			kWh)
1	2	3	4	5	6	7	8	9
1	MePGCL	00.45			40.40			
	a) Umiam Stage-I HEP	99.45	165.00	16.41	16.42		32.83	3.30
	b) Umiam Stage-II HEP	42.66	214.00	9.13	9.12		18.25	4.28
	c) Umiam Stage-III HEP	125.38	218.00	27.33	27.37		54.70	4.36
	d) Umiam Stage-IV HEP	186.32	147.00	27.39	27.37		54.76	2.94
	e) Sonapani	5.89	116.00	0.68	0.68		1.36	2.31
	f) Umtru HEP	20.25	252.00	5.10	5.11		10.21	5.04
	g) Myntdu-Leishka HEP	432.25	229.00	98.99	109.82		208.81	4.83
2	NTPC							
	a) Faraka STPS					-0.02	-0.02	
	b) Kahalgaon STPS - I					0.31	0.31	
	c) Kahalgaon STPS -II					-0.04	-0.04	
	d) Talcher STPS - I					0.22	0.22	
	e) BgTPP	207.50	336.04	69.73	44.48	0.34	114.55	5.52
3	NHPC							
	a) Loktak HEP					1.96	1.96	
4	NEEPCO							
	a) Kopili HEP	25.23	43.60	1.10	6.46	0.08	7.64	
	b) Kopili - II HEP	1.50	92.12	0.14	0.76		0.90	5.99
	c) Khandong HEP	2.51	65.40	0.16	2.60	0.02	2.78	11.09
	d) Ranganadi HEP	17.73	97.01	1.72	19.56	0.18	21.46	12.10
	e) Doyang HEP	2.46	333.33	0.82	6.50	0.03	7.35	29.88
	f) AGBPP	73.27	178.57	13.08	32.90	0.63	46.61	6.36
	g) AGTPP	40.21	184.93	7.44	15.34	0.03	22.81	5.67
	h) Free Power	86.09						
5	ОТРС							
	a) Pallatana	455.66	137.17	62.50	63.40	2.23	128.13	2.81

S.N	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs. Cr.)	Total Fixed Cost (Rs. Cr.)	Others	Total Cost (5+6+7)	Unit Cost (Rs. / kWh)
6	Other sources							
	a) Deviation	46.32	182.64	8.46			8.46	1.83
	b) Market (IEX)	20.00	94.00	1.88			1.88	0.94
	c) Swapping	300.00	3.60	1.08				

# 4.4.6 Power purchase cost which was approved by the Commission in FY 2017-18 was as shown below:

Table 30: Power Purchase Cost approved for FY 2017-18

Station	Energy (MU)	Energy Charge Rate (Rs./Unit)	Variable Cost (Rs. Cr)	Fixed Cost (Rs. Cr)	Total Cost (Rs. Cr)	Average
NTPC						
Farakka	28	3.14	8.80	3.03	11.83	4.22
Kahalgaon I	15	2.95	4.43	1.85	6.28	4.19
Kahalgaon II	75	2.75	20.59	9.50	30.09	4.01
Talcher	18	1.59	2.86	1.76	4.61	2.56
Bongaigoan	200	2.65	53	12.5	65.5	3.28
ОТРС						
OTPC Pallatana	346	1.31	45.39	42.66	88.05	2.54
NEEPCO						
Kopili Stage-I	85	0.45	3.83	4.83	8.66	1.02
Kopili Stage-II	8	0.94	0.75	0.66	1.41	1.77
Khandong HEP	17	1.11	1.89	3.56	5.45	3.20
Rangandai HEP	131	1.22	15.98	24.42	40.40	3.08
Doyang HEP	23	2.08	4.78	5.49	10.27	4.47
AGBPP	187	2.03	37.93	29.49	67.42	3.61
AGTPP	69	2.60	17.95	9.23	27.18	3.94
AGTPP C-Cycle	36	2.12	7.63	7	14.63	4.06
Free Power	58		0.00		0.00	0.00
NHPC						
NHPC Loktak	50	1.41	7.05	8.28	15.33	3.07
MePGCL						
Sonapani	5	0.68	0.37	0.475	0.85	1.69
Lakroh						
Umiam Stage I HEP	116	0.58	6.65	8.44	15.09	1.30
Umiam Stage-II HEP	46	0.82	3.70	4.69	8.39	1.82
Umiam Stage III HEP	139	0.81	11.09	14.06	25.15	1.81
Umiam Stage IV HEP	207	0.54	11.09	14.06	25.15	1.21
Umtru HEP	39	0.54	2.07	2.63	4.70	1.20

Station	Energy (MU)	Energy Charge Rate (Rs./Unit)	Variable Cost (Rs. Cr)	Fixed Cost (Rs. Cr)	Total Cost (Rs. Cr)	Average
Myntdu Leshka HEP	480	1.41	67.77	67.77	135.54	2.82
Umtru New	150	2.58			38.70	2.58
R.P.O					6.55	
Total	2528		335.61	276.355	657.22	2.60

4.4.7 Based on the above submissions, the power purchase cost projected for FY 2017-18 is as follows:

Table 31: Power Purchase Cost (projected) for FY 2017-18

S.N	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs. Cr.)	Total Fixed Cost (Rs. Cr.)	Others	Total Cost (5+6+7)	Unit Cost (Rs. / kWh)
1	2	3	4	5	6	7	8	9
1	MePGCL							
	a) Umiam Stage-I HEP	99.45	173.25	17.23	17.24		34.47	3.47
	b) Umiam Stage-II HEP	42.66	224.70	9.59	9.58		19.16	4.49
	c) Umiam Stage-III HEP	125.38	228.90	28.70	28.74		57.44	4.58
	d) Umiam Stage-IV HEP	186.32	154.35	28.76	28.74		57.50	3.09
	e) Sonapani	5.89	121.80	0.72	0.71		1.43	2.43
	f) Umtru HEP	20.25	258.00				5.22	2.58
	g) Myntdu-Leishka HEP	478.94	521.55	249.79	249.79		499.58	10.43
2	NTPC							
	a) Faraka STPS							
	b) Kahalgaon STPS - I							
	c) Kahalgaon STPS -II							
	d) Talcher STPS - I							
	e) BgTPP	363.13	352.84	128.13	81.73		209.86	5.78
3	NHPC							
	a) Loktak HEP						0.00	
4	NEEPCO							
	a) Kopili HEP	85.00	45.00	3.83	4.83		8.66	1.02
	b) Kopili - II HEP	8.00	94.00	0.75	0.66		1.41	1.77
	c) Khandong HEP	17.00	111.00	1.89	3.56		5.45	3.20
	d) Ranganadi HEP	131.00	122.00	15.98	24.42		40.40	3.08
	e) Doyang HEP	23.00	208.00	4.78	5.49		10.27	4.47
	f) AGBPP	187.00	203.00	37.96	29.49		67.45	3.61
	g) AGTPP	69.00	260.00	17.94	9.23		27.17	3.94
	h) AGTPP C-Cycle	36.00	212.00	7.63	7.00		14.63	4.06
	i) Free Power	58.00						
5	ОТРС							

S.N	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs. Cr.)	Total Fixed Cost (Rs. Cr.)	Others	Total Cost (5+6+7)	Unit Cost (Rs. / kWh)
	a) Pallatana	455.66	144.02	65.63	66.57		132.20	2.90
6	Other sources							
	a) Deviation	20.00	444.15	8.88			8.88	4.44
	b) Market (IEX)	10.00	197.40	1.97			1.97	1.97
	c) Swapping	200.00	5.67	1.13				
	Total	2621.68		631.29	567.78		1203.16	4.59

4.4.8 MePDCL humbly prays before the Honorable Commission to kindly approve the power purchase cost as projected above for FY 2017-18.

#### 4.5 Transmission Charges

- 4.5.1 MePDCL is required to pay the inter-state transmission charges to PGCIL and the intra-state transmission charges to MePTCL. The charges of the former are determined by CERC and that of the latter is determined by MSERC.
- 4.5.2 The inter-state transmission charges payable to PGCIL has been projected based on the CERC approved tariff rates and the capacity allocations from various power stations.
- 4.5.3 The intra-state transmission charges payable to MePTCL is based on the projected Annual Transmission Charges of MePTCL.
- 4.5.4 The intra and inter-state transmission charges projected for FY 2017-18 on the basis of the actuals of FY 2015-16, estimates of FY 2016-17 and the above submissions is as shown in the following table:

Table 32: Transmission Charges (projected) for FY 2017-18 (in INR Crore)

		FY 2016-17 (Estimated)	
MePTCL Charges	170.34	191.35	225.72
PGCIL Charges	88.61	92.81	97.45

4.5.5 MePDCL humbly prays before the Honorable Commission to kindly approve the transmission charges as shown above.

#### 4.6 Employee Expenses

- 4.6.1 It is submitted that before corporatization Meghalaya State Electricity Board (MeSEB) used to revise pay scale of employees every 5 years. Further at the time corporatization in the year 2010 the Management and Employees Association have mutually decided that the earlier trend of revision of pay will continue in future i.e. Management will revise pay scale of all the employees every 5 years. The last pay revision was made effective in the year 2010.
- 4.6.2 Therefore, from January 2015 onwards Revision of Pay will be made effective. The employee cost for the FY 2015-16 is projected by considering the revised pay of Employees. The

following assumptions were taken to arrive at the revised pay of Employees:

- Basic Pay: On a yearly basis the permanent employees of MePDCL are given an increment of 3%. However, owing to pay revision, the basic pay existing as on 1<sup>st</sup> January 2016 is estimated to increase by a factor of 1.73. The existing level of DA as on 1<sup>st</sup> January' 2016 was 56% and as such the net effect of pay revision is expected to be 17%
- Dearness Allowance (DA): The DA is taken around 12% of basic pay for FY 2017-18.
- The other allowance is estimated to remain at the same level as FY 2015-16.
- Terminal benefit provision for FY 2017-18 has been considered at an increment of 3%. However the same will be claimed as per the actuals at the time of true-up.
- The yearly recruitment of technical and non-technical staff is also considered for projection of cost.
- 4.6.3 Based on the above submissions, the employee expenses projected for FY 2017-18 works out to be as shown below:

Table 33: Employee Expenses (projected) for FY 2017-18 (in INR Crore)

		FY 2016-17 (Estimated)	
Employee Expenses	124.18	136.78	165.26

4.6.4 MePDCL humbly prays before the Honorable Commission to kindly consider the assumptions as stated above for the computation of Employee Expenses as stated above and approve the amount as shown in the table above.

# 4.7 Repair and Maintenance (R&M) Expense

- 4.7.1 Meghalaya, being a hilly terrain, demands comparatively more investment for maintaining the transmission network. Under these circumstances there is a genuine need for incurring repair & maintenance expenses to keep the current assets under satisfactory running condition. Further with new addition of assets, there is increased requirement of repair and maintenance expense. The R&M Expense for the control period was projected by considering inflation rate of 5% (CPI) as projected by RBI for the next 2 years.
- 4.7.2 Based on the above submissions, the R&M Expense projections for FY 2017-18 is as shown below:

Table 34: Repair & Maintenance (R&M) Expense (projected) for FY 2017-18 (in INR Crore)

	FY 2015-16	FY 2016-17	FY 2017-18
	(Actuals)	(Estimated)	(Projected)
Repair & Maintenance (R&M) Expenses	3.67	3.86	4.05

4.7.3 MePDCL therefore, humbly prays before the Honorable Commission to kindly approve the R&M expenses as shown above.

#### 4.8 Administrative & General (A&G) Expense

4.8.1 The A&G Expense for the control period was projected by considering inflation rate of 5% (CPI) as projected by RBI for the next 2 years as shown below:

Table 35: Administrative & General (A&G) Expense (projected) for FY 2017-18 (in INR Crore)

		FY 2016-17 (Estimated)	
Administrative & General (A&G) Expenses	8.10	8.50	8.93

4.8.2 MePDCL therefore, humbly prays before the Honorable Commission to kindly approve the A&G expenses as shown above.

# 4.9 Depreciation

- 4.9.1 For the purpose of computation of depreciation, the Gross Fixed Asset (GFA) base as per the pre-audited Statement of Accounts of FY 2015-16 has been taken as the base. The additions in GFA in FY 2016-17 and FY 2017-18 have been considered as per the capital investment plan (Annexure G).
- 4.9.2 The rate of depreciation for various categories of assets has been considered strictly as per the stipulated Regulations (Annexure F).
- 4.9.3 Based on the above, the actual depreciation in FY 2015-16 (inclusive of apportioned amount of MeECL), estimated depreciation in FY 2016-17 and projections for FY 2017-18 are shown in the following tables:

Table 36: Depreciation (Actuals) in FY 2015-16 (in INR Crore)

	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Rate of Dep.	Depreciation
1	Land	2.19	0.04	0.00	2.23	0.00%	0.00
2	Buildings	7.26	0.65	0.00	7.91	3.34%	0.25
3	Hydraulic works	0.01	0.00	0.00	0.01	5.28%	0.00
4	Other Civil works	3.44	0.40	0.00	3.84	3.34%	0.11
5	Plant & Machinery	37.69	0.99	0.05	38.64	5.81%	1.60
6	Lines & Cables	282.64	7.91	0.00	290.55	5.28%	12.83
7	Vehicles	2.96	0.13	0.00	3.09	9.50%	0.06
8	Furniture	1.60	0.01	0.00	1.61	6.33%	0.05
9	Office equipment	2.53	0.03	0.00	2.56	6.33%	0.11
	Less: Amortization of Assets					•	4.73
	Created out of Grants						4.73
	TOTAL:	340.32	10.17	0.05	350.44	•	10.29

Table 37: Depreciation (Estimated) in FY 2016-17 (in INR Crore)

	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Rate of Dep	Depreciation
1	Land	2.19	0.22		2.41	0.00%	0.00
2	Buildings	7.26	0.73		7.98	3.34%	0.23
3	Hydraulic works	0.01	0.00		0.01	5.28%	0.00
4	Other Civil works	3.44	0.34		3.78	3.34%	0.11
5	Plant & Machinery	37.69	3.77		41.46	5.81%	2.07
6	Lines & Cables	282.64	28.30		310.94	5.28%	14.10
7	Vehicles	2.96	0.30		3.26	9.50%	0.27
8	Furniture	1.60	0.16		1.76	6.33%	0.10
9	Office equipment	2.53	0.25		2.79	6.33%	0.15
	Less: Amortization of Assets						4.73

Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Rate of Dep	Depreciation
Created out of Grants						
TOTAL:	340.32	34.07	0.00	374.39		12.29

Table 38: Depreciation (Projected) for FY 2017-18 (in INR Crore)

	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Rate of Dep	Depreciation
1	Land	2.41	0.24		2.65	0.00%	0.00
2	Buildings	7.98	0.81		8.79	3.34%	0.25
3	Hydraulic works	0.01	0.00		0.02	5.28%	0.00
4	Other Civil works	3.78	0.38		4.16	3.34%	0.12
5	Plant & Machinery	41.46	4.19		45.65	5.81%	2.28
6	Lines & Cables	310.94	31.39		342.33	5.28%	15.52
7	Vehicles	3.26	0.33		3.59	9.50%	0.29
8	Furniture	1.76	0.18		1.94	6.33%	0.11
9	Office equipment	2.79	0.28		3.07	6.33%	0.17
	Less: Amortization of Assets						4.73
	Created out of Grants						4.73
	TOTAL:	374.39	37.80	0.00	412.19		14.00

4.9.4 MePDCL humbly prays before the Honorable Commission to kindly approve the depreciation as computed above.

#### 4.10 Interest and Finance Charges

- 4.10.1 As per Regulation 32 of the MYT Regulations, 2014, Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreements, bond or debenture and the prevailing lending rate of bank and financial institution. It is submitted that the Interest on Loan for the control period has been computed by considering Interest obligation for existing loans as well as for future projects with a loan component.
- 4.10.2 The major loans that would remain outstanding in FY 2017-18 are PFC loans for R-APDRP Part A&B and State Govt. Loans for various projects.
- 4.10.3 The summarized statement of Interest and Finance charges to be considered for the Control Period is shown in the table below:

Table 39: Interest and Finance Charges for the Control Period 2015-18 (in INR Crore)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
Particulars	(Provisional)	(Estimated)	(Projected)
Opening Balance	127.34	180.69	111.88
Addition During the Year	0.01	49.95	66.43
Repayment during the year	15.96	15.17	0.00
Closing Balance	111.81	215.46	178.31
Average Interest Rate	10.61%	9.81%	9.02%
Interest Payable	12.69	19.43	13.08
Add: Finance Charge			

Interest and Finance Charges	12.60	10.42	12.00	1
Interest and Finance Charges	12.69	19.43	13.08	

4.10.4 MePDCL humbly prays before the Honorable Commission to kindly approve the Interest and Finance Charges as computed above.

#### 4.11 Interest on Working Capital

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

#### "34.3 Distribution Business

- (i) The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Distribution Business for the financial year, computed as follows:
  - Operation and maintenance expenses for one month; plus
  - Maintenance spares at one (1) per cent of the historical cost escalated at 6% from the date of commercial operation; plus
  - Receivables equivalent to two (2) months of the expected revenue from charges for use of Distribution at the prevailing tariffs; minus

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

4.11.2 Based on the above, the Interest on Working Capital can be computed as follows:

Table 40: Interest on Working Capital for the Control Period 2015-18 (in INR Crore)

	FY 2015-16	FY 2016-17	FY 2017-18
	(Actuals)	(Estimated)	(Projected)
O&M Expense for one month	11.33	11.33	12.43
Maintenance Spares @ 1% of GFA	3.45	3.57	3.93
Receivables for two months	143.25	188.08	261.31
Total Working Capital	158.03	202.98	277.67
Interest Rate	14.45%	14.45%	14.45%
Interest on Working Capital	23.31	29.49	40.47

4.11.3 MePDCL humbly prays before the Honorable Commission to kindly approve the Interest on Working Capital as computed above.

#### 4.12 Return on Equity

4.12.1 The relevant regulations for determination of debt-equity ratio are extracted from the MSERC MYT Regulations, 2014 and reproduced for reference as below:

# "27 Debt-Equity Ratio

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

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

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

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

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

- 27.2 In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2015, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2015 shall be considered.
- 27.3 Any expenditure incurred or projected to be incurred on or after 1.4.2015as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in this regulations."
- 4.12.2 The Regulation 31 & 92 of the MYT Regulations, 2014, provides for computation of Return on Equity (RoE). The extract is reproduced below:

#### "31 Return on Equity

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

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

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

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

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

• • • •

#### 92 Return on Equity

- 92.1 The Distribution Licensee shall be allowed a return on equity for Distribution Business, as specified in these Regulations."
- 4.12.3 For computation of RoE till 1<sup>st</sup> April, 2015, the Meghalaya State Electricity Regulatory Commission (Terms and Conditions for determination of Tariff) Regulations, 2011 (hereinafter referred as Tariff Regulations, 2011) have been followed. The relevant provision of Tariff Regulations, 2011 is reproduced below:

# "101. Return on Equity

(1) Return on equity shall be computed on the equity base determined in accordance with Regulation 100, at a fixed rate of 14 percent, per annum.

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 difference in actual exchange rate and the provisional exchange rate considered while determining the ARR shall be taken into consideration at the time of 'Truing up'.

(2) The equity amount appearing in the audited Balance Sheet or as per Transfer Scheme Notification will be taken into account for the purpose of calculating the return on equity for the first year of operation, subject to such modifications as may be found necessary upon audit of the accounts if such a Balance Sheet was not audited.

....."

4.12.4 Based on the above submissions the Return on Equity has been computed for each year of the Control Period as per the average equity appearing in the Balance Sheet of MePDCL for FY 2015-16 and projections as per the investment plan as shown in the table below:

Table 41: Return on Equity for the Control Period 2015-18 (in INR Crore)

	FY 2015-16	FY 2016-17	FY 2017-18
	(Actuals)	(Estimated)	(Projected)
Opening Equity	801.2	810.42	826.43
Addition	9.22	16.01	0.00
Closing Equity	810.42	826.43	826.43
Average Equity	805.81	818.43	826.43
RoE (%)	14%	14%	14%
Return on Equity	112.81	114.58	115.70

4.12.5 MePDCL humbly prays before the Honorable Commission to kindly approve the RoE for the remaining part of the Control Period as per the above computations.

#### 4.13 Non-Tariff Income

- 4.13.1 As per Regulation 96.2 of the MYT Regulations, 2014 the other Income of a Distribution Licensee is to be deducted from the total expenses to arrive at the net ARR. The components of the other income (Non-Tariff Income) as per Regulation 96.2 are:
  - Income from delayed payment surcharge
  - Income from meter rent
  - Income from various customer charges
  - Income from investments
  - Miscellaneous receipts from consumers
  - Trading income

- Prior period income
- Interest on staff loans and advances
- Recovery of theft and pilferage of energy
- Any other income
- 4.13.2 It is assumed that the Non-Tariff Income will remain at the same level as FY 2015-16. The details of Non-Tariff Income are mentioned in table below:

Table 42: Non-Tariff Income for the Control Period 2015-18 (in INR Crore)

		FY 2015-16	FY 2016-17	FY 2017-18
S.N.	Particulars	(Actual)	(Estimated)	(Projected)
1	Meter / Service rent	2.45	2.45	2.45
2	Late payment surcharge	10.89	10.89	10.89
3	Theft / pilferage of energy charges	0	0	0
4	Misc. receipts	56.14	56.14	56.14
5	Misc. charges	11.09	11.09	11.09
6	Wheeling charges	0	0	0
7	Interest on staff loans & advance	0	0	0
8	Income from trading	0	0	0
9	Income from welfare activities	0	0	0
10	Rebates	0.02	0.02	0.02
11	Investments & bank balances	3.94	3.94	3.94
12	Revenue Grant	0.54	0.54	0.54
13	Total Non-Tariff Income	85.07	85.07	85.07

4.13.3 MePDCL humbly prays before the Honorable Commission to kindly approve the Non-Tariff Income for the remaining part of the Control Period as per the above computations.

#### 4.14 RE Subsidy

- 4.14.1 The State Government has provided RE Subsidy of Rs. 14.53 Crore in FY 2015-16 and MePDCL has kept a provision of Rs. 21.07 Crore and Rs. 23.18 Crore in FY 2016-17 and FY 2017-18 respectively.
- 4.14.2 MePDCL submits before the Hon'ble to kindly approve the same to be deducted from the ARR to arrive at the Net ARR.

#### 4.15 Revenue from Sale of Surplus Power

- 4.15.1 In FY 2015-16, MePDCL had 652.45 MU of surplus power and had earned a revenue of Rs. 106.11 Crore from its sale.
- 4.15.2 It is submitted that as per the Energy Balance section above, MePDCL is expected to have some quantum of surplus power every year.
- 4.15.3 As this surplus power is expected to be available only during the rainy season, MePDCL has to depend upon the Short Term market for sale of this surplus power. Over last 3-5 years, it is observed that there are huge fluctuations in the short term market rate especially during the rainy season. Therefore, it is extremely difficult to project a realistic per unit rate of power.
- 4.15.4 However, after analyzing the past trend and current market trend, estimates have been

made on the rate of revenue realization from the sale of such surplus power. The calculation of Revenue from sale of Surplus Power is shown in the table below:

Table 43: Revenue from Sale of Surplus Power for the Control Period 2015-18 (in INR Crore)

Particulars	2016-17 (Estimated)	2017-18 (Projected)
Surplus Power (MU)	487.45	857.17
Average IEX Rate (Rs./kWh)	2.47	2.47
Revenue from Sale of Surplus Power (Rs. Crore)	120.40	211.72

4.15.5 MePDCL submits before the Hon'ble Commission to kindly approve the above as revenue from sale of surplus power to be deducted from the Gross ARR.

#### 4.16 Annual Revenue Requirement (ARR) for each year of the Control Period

4.16.1 Based on the above submissions, the ARR for each year of the Control Period would be as shown in the following table:

Table 44: Annual Revenue Requirement (ARR) for the Control Period 2015-18 (in INR Crore)

Doubledon	2015-16	2016-17	2017-18
Particulars	(Actuals)	(Estimated)	(Projected)
Power Purchase Cost	613.92	745.92	1,203.16
Transmission Charges (PGCIL)	88.61	92.81	97.45
Transmission Charges (MePTCL)	170.34	191.35	225.72
Employee Expenses	124.18	136.78	165.26
Repair & Maintenance Expenses	3.67	3.86	4.05
Administration & General Expenses	8.10	8.50	8.93
Depreciation	10.30	12.29	14.00
Interest on Loan	12.69	19.43	13.08
Interest on Working Capital	23.31	29.49	40.47
Other Debits (Incl Provisions for Bad Debts)	(5.21)	-	-
Prior Period Charges /(Credits)	1.02	-	-
Income Tax	-	-	-
Return on Equity	112.81	114.58	115.70
Gross Annual Revenue Requirement (ARR)	1,163.74	1,355.02	1,887.83
Less: Non-Tariff Income	85.07	85.07	85.07
Less: R.E. Subsidy	14.53	21.07	23.18
Less: Subsidy against Power Purchase	6.33	-	-
Less: R.E. Subsidy Against Loss On Account	2.35		
Of Flood, Fire Cyclone Etc	2.33	-	-
Less: Revenue Grant for Other Expenditure	0.51	-	-
Less: Sale of Surplus Power	106.11	120.40	211.72
Net ARR	948.84	1,128.49	1,567.86

4.16.2 MePDCL humbly prays before the Honorable Commission to kindly approve the revised ARR for the Control Period as computed above.

# 5 Determination of Retail Supply Tariff for FY 2017-18

# 5.1 Total Gap to be recovered through Tariff in FY 2017-18

- 5.1.1 It may be noted that the revised ARR as well as the gap computed in the true up of FY 2014-15 and provisional true up of FY 2015-16 is to be cumulatively recovered through the tariff of FY 2017-18. The gap of FY 2016-17 is proposed to be pass through in the subsequent tariff petition along with the truing up of FY 2016-17.
- 5.1.2 Thus, the net Revenue Requirement for FY 2017-18 would be as shown below:

r		1
SI. No.	Particulars	Amount
1	Revised ARR of FY 2017-18	1,567.86
2	Add: Gap from True up of FY 2014-15 of MePDCL	373.18
3	Add: Gap from provisional True up of FY 2015-16 of MePDCL	314.84
4	Add: Gap from True up of FY 2014-15 of MePTCL	60.50
5	Add: Gap from provisional True up of FY 2015-16 of MePTCL	89.00
6	Add: Gap from True up of FY 2014-15 of MePGCL	29.51
7	Add: Gap from provisional True up of FY 2015-16 of MePGCL	114.5
8	Total Revenue Requirement for FY 2017-18	2,549.39

Table 45: Total Revenue in FY 2017-18 (in INR Crore)

5.1.3 Thus, the retail supply tariff for FY 2017-18 would be determined based on the net Revenue Requirement as computed above.

#### **Projection of Sales**

5.1.4 The Regulation 81 of the MYT Regulations, 2014, provides the provisions for estimation of Energy Sales. The relevant provisions are mentioned below:

#### "81 Estimation of Sales

- 81.1 The accurate projection of category-wise sales is very essential for the assessment of energy input requirement so as to determine the quantum of generation and quantum of energy to be purchased for the correct assessment of revenue requirement for generation and power purchase in the control period.
- 81.2 The licensee may adopt a suitable methodology like CAGR to arrive at the category wise sales for the current year and estimates for ensuing years based on the past trends.

.. ..... ......."

- 5.1.5 Based on the provisions as mentioned above, MePDCL has analyzed the trends of the category-wise consumer data for the past years and estimated the category wise energy sale based on CAGR of past 4 years i.e. FY 2012-13 to FY 2015-16.
- 5.1.6 The projected category wise sales is as shown below:

Table 46: Projection of Sale of Power based on 4-year CAGR (in Million Units)

	2012-13	2013-14	2014-15	2015-16	4 Voor CACD	2016-17	2017-18
	(Actuals)	(Actuals)	(Actuals)	(Actuals)	4 Year CAGR	(Projected)	(Projected)
DLT	300.18	336.85	355.83	376.93	7.08%	403.60	430.57

	2012-13	2013-14	2014-15	2015-16	A Voor CACD	2016-17	2017-18
	(Actuals)	(Actuals)	(Actuals)	(Actuals)	4 Year CAGR	(Projected)	(Projected)
CLT	55.98	70.98	62.59	65.02	3.99%	67.61	72.45
GP	43.87	19.69	25.07	22.80	-18.89%	18.49	7.51
ILT	5.97	5.75	5.26	5.38	-5.85%	5.07	4.47
WSLT	7.97	8.47	8.53	7.26	-4.80%	6.91	7.08
KJ	13.44	19.31	21.47	23.06	23.91%	28.57	34.43
PL	2.36	1.31	1.27	1.02	-3.64%	0.99	0.97
AP	0.33	0.16	0.10	0.09	-31.50%	0.06	-0.03
CRM	0.20	0.21	0.19	0.16	-2.49%	0.16	0.17
CHT	19.81	18.67	23.05	26.86	7.73%	28.94	28.86
DHT	20.36	21.97	22.53	22.83	3.08%	23.53	24.53
IHT	273.71	286.29	221.02	171.20	-12.30%	150.14	141.71
WSHT	27.70	29.03	32.41	29.93	0.67%	30.13	31.74
BS	66.56	72.92	62.03	65.00	-1.93%	63.75	61.62
EHT	203.03	160.70	179.60	211.60	-1.37%	208.70	178.97
ASEB	19.08	20.22	20.00	29.17	11.16%	32.42	30.93
Total	1,060.55	1,072.53	1,040.93	1,058.32	-0.83%	1,122.74	1,202.52

# 5.2 Revenue at existing tariff

5.2.1 The last tariff order issued by the Honorable Commission was on 31.03.2016. Considering the approved average tariff rates for each consumer category as per the said order, the expected revenue from sale of power in FY 2017-18 will be as follows:

Table 47: Projection of Revenue from Sale of Power at existing tariff in FY 2017-18

	Projected Sale in 2017-18	Average Tariff Rate	Revenue
	(MU)	(Rs./kWh)	(Rs. Crore)
DLT	430.57	5.02	216.15
CLT	72.45	7.4	53.61
GP	7.51	6.62	4.97
ILT	4.47	7.28	3.26
WSLT	7.08	6.82	4.83
KJ	34.43	3.28	11.29
PL	0.97	6.44	0.62
AP	0.06	4.15	0.02
CRM	0.17	4.14	0.07
CHT	28.86	7.51	21.68
DHT	24.53	7.26	17.81
IHT	141.71	7.19	101.89
WSHT	31.74	6.9	21.90
BS	61.62	7.33	45.17
EHT	178.97	6.68	119.55
ASEB	30.93	5.94	18.37
Total	1,202.52		641.20

# 5.3 Revenue Gap for FY 2017-18

5.3.1 Based on the above submissions, the revenue gap for FY 2017-18 has been arrived at as

follows:

Table 48: Revenue Gap in FY 2017-18 (in INR Crore)

Particulars	Amount
Total Revenue Requirement in FY 2017-18	2,549.39
Less: Projected Revenue at Existing Tariff Rates	641.20
Projected Revenue Gap for FY 2017-18	1,908.19

# 5.4 Determination of Retail Supply Tariff Rates for FY 2017-18

- 5.4.1 From the previous section, it is evident that in order to meet the projected revenue gap of Rs. 1908.19 Crore, the existing tariff rates need to be enhanced by 297.60% or in other words, a tariff hike of roughly three times is required.
- 5.4.2 Since this would be a huge tariff shock to the consumers, MePDCL proposes that there may be a tariff hike of only 25% and the remaining amount may be treated as regulatory asset to be liquidated over the future years.
- 5.4.3 The projected revenue gap with a 25% tariff hike is estimated as shown below:

Table 49: Revenue Gap in FY 2017-18 with 25% tariff hike (in INR Crore)

Particulars	Amount
Total Revenue Requirement in FY 2017-18	2,549.39
Less: Projected Revenue with 25% Tariff Hike	801.50
Projected Revenue Gap for FY 2017-18 (to be treated as Regulatory Asset)	1,747.89

5.4.4 MePDCL humbly prays before the Honorable Commission to kindly approve the proposal for tariff revision as submitted above which would balance the interests of both the consumers as well as the licensee.

#### 5.5 Proposed Retail Supply Tariff Schedule for FY 2017-18

5.5.1 Based on the above submissions, MePDCL proposes the following tariff rates as per the two part tariff principle for various consumer categories:

Table 50: Tariff Rates proposed for various consumer categories in FY 2017-18

	Category	Existing <sup>*</sup>	Tariff	Proposed Tariff	
SI. No.		Fixed Charges (Rs./kW/month)	Energy Charges (Rs/kWh)	Fixed Charges (Rs./kW/month)	Energy Charges (Rs/kWh)
1	Kutir Jyoti (KJ)				
Α	Unmetered (per connection)	110		140	
В	Metered		2.65		3.30
2	Domestic (DLT)	50		65	
Α	First 100 Units		3.15		3.95
В	Next 100 Units		3.75		4.70
С	Above 200 Units		5.00		6.25
3	Commercial (CLT)	100		125	
Α	First 100 units		5.35		6.70
В	Above 100 units		6.75		8.45
4	Industrial (ILT)	100	5.45	125	6.80

		Existing	Tariff	Proposed	Tariff
SI. No.	Category	(Rs./kW/month)		Fixed Charges (Rs./kW/month)	Energy Charges (Rs/kWh)
6	Public Lighting (PL)	100	6.15	125	7.70
7	Fixed charges for Public	Rs./Lamp/Point/			
	Lighting (Unmetered)	Month			
	Types of Lamps				
Α	Incandescent lamp				
ı	40 W	120		150	
ii	60 W	180		225	
iii	100 W	290		365	
b	Fluorescent Lamp				
I	Up to 40 W	180		225	
С	Mercury Vapour Lamp				
I	80 W	265		330	
ii	125 W	370		465	
iii	250 W	785		980	
iv	500 W	1450		1815	
d	Sodium Vapour lamp				
I	Upto 150 W	570		715	
ii	250 W	880		1100	
iii	400 W	1460		1825	
E	CFL Fittings				
I	Up to 45 W	170		215	
li	Above 45 Up to 85 W	280		350	
F	LED Fittings	540		675	
G	Metal Halide	660		825	
8	Public Water supply/sewage treatment plant (WSLT)	100	6.15	125	7.70
9	General Purpose (GP)	100	6.15	125	7.70
10	Agriculture (AP)	60	2.50	75	3.15
11	Crematorium (Rs./Connection/Month)	6200	3.75	7750	4.70
	High Tension	Rs/kVA/month	Rs/kWh	Rs/kVA/month	Rs/kWh
12	Domestic (DHT)	190	6.05	240	7.55
13	General Purpose/ Bulk Supply (BS)	190	5.65	240	7.05
		Rs/kVA/month	Rs/Kvah	Rs/kVA/month	Rs/kVAh
14	Commercial (CHT)	190	6.05	240	7.55
15	Industrial (IHT)	190	5.89	240	7.35
16	Public Water Supply (WSHT)	190	5.65	240	7.05
	Extra High Tension	Rs/kVA/month	Rs/kVAh	Rs/kVA/month	Rs/kVAh
17	Industrial EHT	190	5.65	240	7.05

# 5.6 Wheeling Charges and Cross Subsidy surcharge for FY 2016-17

- 5.6.1 Based on the similar principles as above, MePDCL proposes a 25% increase in wheeling charges and Cross Subsidy Surcharge over the prevailing rates as per Tariff Order dated 31.03.2016 to be recovered from Open Access Consumers.
- 5.6.2 The revised rates being proposed are as follows:

Table 51: Proposed Open Access Charges for FY 2017-18

Sr. No.	Particulars	Existing (Rs./kWh)	Proposed (Rs./kWh)
1	Distribution Wheeling Charges	1.36	1.70
2	Cross Subsidy Surcharge for HT consumers	1.75	2.20
3	Cross Subsidy Surcharge for EHT consumers	1.90	2.40

# 5.7 Prayer before the Honorable Commission

5.7.1 MePDCL humbly prays before the Honorable Commission to kindly approve the proposed tariff rates for implementation from 01.04.2017 based on the facts and circumstances submitted above and also allow a Regulatory Asset for the unrecovered amount of Rs. 1747.89 Crore..