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# **ABBREVIATIONS**

190	Administration & Constant
A&G	Administration & General
ARR	Aggregate Revenue Requirement
APTEL	Appellate Tribunal For Electricity
AT&C	Aggregate Technical & Commercial losses
CAGR	Compound Annual Growth Rate
CD	Contract Demand
CoD	Commercial Operation Date
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
CoS	Cost of Supply
CWIP	Capital Work In Progress
DE	Debt Equity
EHT	Extra High Tension
FY	Financial Year
GOM	Government of Meghalaya
GFA	Gross Fixed Assets
HT	High Tension
KV	Kilo Volt
KVA	Kilo Volt Amps
KVAh	Kilo Volt Ampere hour
KW	Kilo Watt
kWh	kilo Watt hour
LT	Low Tension
MVA	Million Volt Amps
MU	Million Unit
MW	Mega Watt
MYT	Multi Year Tariff
MeECL	Meghalaya Energy Corporation Limited
MePGCL	Meghalaya Power Generation Corporation Limited
MePDCL	Meghalaya Power Distribution Corporation Limited
MePTCL	Meghalaya Power Transmission Corporation Limited
MSERC	Meghalaya State Electricity Regulatory Commission
NER	North Eastern Region
O&M	Operation & Maintenance
PGCIL	Power Grid Corporation of India Limited
ROE	Return on Equity
R&M	Repairs & Maintenance
SOA	Statement of Accounts
SLDC	State Load Despatch Centre
SBAR	State Bank Advance Rate
ToD	Time of the Day

# MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

1<sup>st</sup> Floor (Front Block Left Wing), New Administrative Building Lower Lachumiere, Shillong-793001 East Khasi Hills District, Meghalaya

#### Case No: 04/2021

In the Matter of

Determination of Multi Year Aggregate Revenue Requirement (ARR) for 3<sup>rd</sup> MYT Control Period FY 2021-22 to FY 2023-24 and Retail Supply Tariff for FY 2021-22 for distribution and retail supply of power in the State of Meghalaya.

AND

Meghalaya Power Distribution Company Limited ------ the Petitioner

#### Coram

# Shri. P.W Ingty, IAS (Retd) Chairman

# Shri. Roland Keishing Member

#### ORDER

# Date: 25.03.2021

- The Meghalaya Power Distribution Corporation Limited (herein after referred to as MePDCL) is a deemed licensee in terms of section 14 of the Electricity Act 2003 (herein after referred to as Act), engaged in the business of distribution of electricity in the state of Meghalaya.
- As per Regulation 6 of MYT Regulations 2014, the MePDCL has filed the Petition for determination of Aggregate Revenue Requirement (ARR) for 3<sup>rd</sup> MYT control period FY 2021-22 to 2023-24 and Retail Tariff for FY 2021-22.
- 3. The licensee shall file Regulatory Accounts along with the Petition for ARR and Retail Tariff and also for true-up of previous years. The petitioner has yet to file true-up petition for FY 2018-19 & FY 2019-20. Licensee has filed Statement of Accounts (SoA) for FY 2018-19 certified by Statutory Auditors and provisional accounts for FY 2019-20. Commission has considered the audited statement of accounts for FY 2018-19, provisional accounts for FY 2019-20, and assumptions for FY 2020-21 and for the 3<sup>rd</sup>

MYT Control period FY 2021-22 to FY 2023-24 based on inflation rates notified by Govt. of India for determination of ARR.

- 4. The Tariff Regulations specify that the distribution licensee shall file ARR and Tariff petition in all aspects along with requisite fee as specified in Commission's fee, fines and charges Regulations on or before 30th November of the preceding year. Accordingly MePDCL has filed the petition for ARR for 3<sup>rd</sup> MYT Control Period FY 2021-22 to FY 2023-24 and for Retail Tariff for FY 2021-22 on 04.12.2020. Commission has admitted the petition provisionally on 07.12.2020.
- 5. In exercise of the powers vested under section 62 (1) read with section 62 (3) and section 64 (3) of the Electricity Act 2003 and MSERC MYT Regulations, 2014 (herein after referred to as MYT Regulations) and other enabling provisions in this behalf the Commission issues this order for approval of the ARR for 3<sup>rd</sup> MYT Control period FY 2021-22 to FY 2023-24 and determination of Retail Tariffs for FY 2021-22 in the state of Meghalaya.
- 6. Regulation 19 of the Tariff Regulations, 2014 specifies for giving adequate opportunities to all stake holders and general public for making suggestions/ objections on the Tariff Petition filed by the licensee. Accordingly, the Commission directed MePDCL to publish the ARR and Tariff Petition to be published in an abridged form as public notice in the newspapers having wide circulation in the state, inviting objections / suggestions on the Tariff Petition.
- 7. MePDCL has published the Tariff Petition in the abridged form as public notice in various newspapers and the Tariff petition was also placed on the website of MePDCL. It is notified that submission of suggestions and objections shall be within 30 days from the date of publication.
- 8. The Commission in order, to ensure transparency in the process of Tariff determination and for providing proper opportunity to all stake holders and general public for making suggestions/ objections on the Tariff petition, and for convenience of the consumers and general public across the state, decided to hold a public hearing at the headquarters of the state. Accordingly, the Commission held public hearing as scheduled at Shillong on 18.03.2021.
- 9. The Proposal of MePDCL was also placed before the State Advisory Committee in its meeting held on 22.03.2021 and various aspects of the Petition were discussed by the

committee. The Commission took into consideration the advice of the State Advisory Committee on the ARR and Tariff Petition of MePDCL for the 3<sup>rd</sup> MYT Control period FY 2021-22 to FY 2023-24 & Retail tariff for FY 2021-22

- 10. The Commission took into consideration the facts presented by the MePDCL in its petition and subsequent various filings, the suggestions/objections received from stakeholders, consumer organizations, general public and State Advisory Committee and the response of the MePDCL to those suggestions/objections before issue of the Tariff Order.
- 11. The Commission has reviewed the Directives issued earlier in the Tariff Orders for FY 2013-14 to 2020-21 and noted that some of the Directives are complied with and some are partially attended. The Commission has dropped the Directives complied with, and the remaining Directives are consolidated and fresh Directives are added.
- 12. The Commission after taking into consideration all the facts which came up during the public hearing and meeting of the State Advisory Committee, approved the ARR for 3<sup>rd</sup> MYT control period FY 2021-22 to FY 2023-24 and Retail tariff for FY 2021-22 as per the MYT Regulations.
- 13. For the Sake of Convenience and clarity this Order is issued in 9 chapters as detailed below.

Chapter	1	-	Introduction
Chapter	2	-	Summary of Petition for ARR for FY 2021-22 to 2023-24 & retail tariff
			for FY 2021-22
Chapter	3	-	Public Hearing process
Chapter	4	-	Approach of the Commission
Chapter	5	-	Analysis of ARR for FY 2021-22 to FY 2023-24 and Commission's
			approvals
Chapter	6	-	Tariff principles and Design & Approved Tariffs
Chapter	7	-	Wheeling Charges and cross subsidy surcharges
Chapter	8	-	Directives
Chapter	9	-	Schedule of Approved Tariffs for FY 2021-22

14. MePDCL shall ensure implementation of the Tariff Order from the effective date after issuance of a public notice, in such a font size which is clearly visible in two daily newspapers having wide circulation in the state within a week and compliance of the same shall be submitted to the Commission.

This order shall be effective from 1st April, 2021 and shall remain in force till 31st March, 2022 or till the next Tariff Order of the Commission.

Sd/-Shri. Roland Keishing Member Sd/-Shri. P.W Ingty, IAS (Retd) Chairman

# 1. Introduction

# 1.1. Back Ground

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

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

On 23rd December 2013, the Government of Meghalaya has issued the latest transfer scheme notification thereby notifying the Assets and Liabilities as on 1st April 2010 to be vested in MeECL. Subsequently, the Government of Meghalaya has notified the 4th Amendment to the Notified Transfer Scheme dated 31st March 2010 on 29th April 2015, wherein the opening balances of all the four entities namely, MePGCL, MePTCL, MePDCL and MeECL as on 1st April 2012 have been notified.

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

MePDCL has begun segregated commercial operations as an independent entity and the sole distribution licensee in the State of Meghalaya from 1st April 2013.

# 1.2. Meghalaya Power Distribution Corporation Limited

The Meghalaya Power Distribution Corporation Limited (here in after referred to as MePDCL or the Petitioner) has filed petition on 04.12.2020 for determination of Aggregate Revenue Requirement for the 3<sup>rd</sup> MYT Control period FY 2021-22 to FY 2023-24 and for Retail tariff for FY 2021-22. The Commission has admitted the Petition provisionally on 07.12.2020.

## 1.3. Meghalaya State Electricity Regulatory Commission

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

## 1.4. Admission of the Petition and Public Hearing process

The MePDCL has submitted the current petition for determination of Multi Year Aggregate Revenue Requirement (ARR) for 3<sup>rd</sup> MYT Control Period FY 2021-22 to 2023-24 and retail tariff for FY 2021-22. The Commission undertook the technical validation and asked the licensee to submit Additional information/data on 18.01.2021.

In accordance with Regulation 19 of MYT Regulation 2014, the Commission directed MePDCL to publish the application in an abridged form to ensure public participation in the process of tariff determination. The public notice, inviting objections/ suggestions from its stakeholders on the ARR and tariff petition filed by Licensee, was published in the following newspapers on the dates noted against each.

SI. No	Name of the News Paper	Language	Date of Publication
1	The Shillong Times	English	21.12.2020 & 22.12.2020
3	U Nongsain Hima	Khasi	21.12.2020 & 22.12.2020
4	Salantini Janera	Garo	21.12.2020 & 22.12.2020

MePDCL had also placed the public notice and the Petition on the website (www.meecl.nic.in). The interested parties/stakeholders were asked to file their objections/suggestions on the petition within 30 days of publication of notification.

MePDCL/Commission received some objections/suggestions from Consumers/ consumer organizations. The Commission examined the objections/suggestions received and fixed the date for public hearing on MePDCL petition to be held on 18.03.2021. Commission also informed the objectors to take part in the public hearing process for presenting their views in person before the Commission. The Public hearing was conducted in Shillong as scheduled. The Commission also held meeting with State Advisory Committee on 22.03.2021 Proceedings of the meeting are given in Annexure-I.

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

A short note on the main issues raised by the objectors in the written submission and also in the public hearing along with response of MePDCL and the Commission's views on the response are briefly noted in Chapter-3 of this Order.

# 2. Summary of Petition for ARR for Control Period FY 2021-22 to FY 2023-24 and Retail Tariff for FY 2021-22

# 2.1 Aggregate Revenue Requirement (ARR) for 3<sup>rd</sup> MYT Control Period FY 2021-22 to FY 2023-24

The Meghalaya Power Distribution Company Limited (MePDCL) has submitted the Petition for seeking approval of Aggregate Revenue Requirement for 3<sup>rd</sup> MYT Control Period FY 2021-22 to FY 2023-24 and Determination of Distribution Tariff for FY 2021-22. The MePDCL has projected the Revenue Requirement for the Control period as under:

			(Rs. Crore)
Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Power Purchase Cost	1139.15	1210.59	1267.96
Transmission Charges (PGCIL)	98.93	103.87	109.07
Transmission Charges (MePTCL)	156.43	195.91	209.62
Employee Expenses	226.80	240.43	254.67
Repair & Maintenance Expenses	6.51	6.83	7.17
Administration & General Expenses	32.50	33.26	34.05
Depreciation*	14.42	19.65	19.62
Interest and Finance Charges	205.47	197.59	182.19
Interest on Working Capital	38.39	41.91	44.78
Return on Equity	32.54	31.68	37.77
Bad & Doubtful Debt	3.75	3.75	3.75
Gross Annual Revenue Requirement (ARR)	1954.88	2085.48	2170.64
Less: Other Income**	73.22	74.71	76.25
Less: Sale of Surplus Power	221.60	197.17	187.55
Net ARR	1660.06	1813.60	1906.84

\* Amortization Removed and Part of Depreciation

\*\* Amortization adjusted in Depreciation

# 2.2 Revenue Gap for the First year of the Control Period

# 2.2.1 Revenue at Current tariffs

The revenue at Current Tariff is calculated based on the current tariff and projected sale of energy category wise for the 1<sup>st</sup> year of Control period i.e., FY 2021-22. The detailed calculation of revenue at current tariff is shown in format 14 of the Petition. The total revenue at current tariff works out to Rs. 963.62 Cr. for FY 2021-22.

#### 2.3 Revenue from Sale of Power

As per the Table-36 in the petition, MePDCL is expected to have surplus power after meeting the State Demand of Energy. This surplus power is expected to be available during the rainy season only. Over last 3-5 years, it is observed that there are huge fluctuations in the short term market rate especially during the rainy season. The licensee has taken the average rate of surplus power sale outside state in last 2 year as the rate of sale of surplus power for the control period (as derived in Table 34 of petition) i.e. Rs 2.20 per unit

Particular	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Sale of Surplus Power (MU)	1007.68	896.61	852.88
Revenue from Sale of Surplus Power (Per Unit Rate of 2.20) (Rs.Crore)	221.60	197.17	187.55

#### 2.4 Total ARR for FY 2021-22

The ARR as well as the gap computed in the true up of FY 2017-18 is to be recovered through the tariff of FY 2021-22. The Licensee had filed the petition for review on true up order for FY 2016-17 for which the orders are due from the Commission. Hence the True up Gap of FY 2016-17 resulting from the review is not included here and may be added if the order is released during the period of consideration of this petition.

Thus, the net Revenue Requirement for FY 2021-22 would be as shown below:

Table 2.3: Net ARR for FY 2021-22

SI No	Particulars	Amount (In Rs Cr)
1	ARR of FY 2021-22	1,660.06
2	Additional Claim as per True Up FY 2017-18 Order	112.05
3	Total Revenue Requirement for FY 2021-22	1,772.11

# 2.5 Revenue Gap/ Deficit at Current tariff

From the projected total ARR, Revenue at existing tariff, Revenue from sale of surplus power the Revenue Gap/ deficit is arrived as shown in the Table below:

## Table 2.4: Revenue Gap at existing tariff for FY 2021-22

Particulars	Amount in (Rs Cr)
Total Revenue Requirement in FY 2021-22	1,772.11
Less: Projected Revenue at Existing Tariff Rates	963.62
Revenue Gap for FY 2021-22 at Existing Tariff	808.49

## 2.6 Existing Tariffs and Proposed Tariffs for FY 2021-22

The tariff rates for different category of consumers with the tariff hike proposed are

as stated in the table given below:

# Table 2.5: Existing and Proposed Tariff for FY 2021-22

SI.	Category	Existing Ta	ariff	Propose	ed Tariff
No		Fixed Charges (Rs./Conn/kW)	Energy Charges (Rs/KWh)	Fixed Charges (Rs./Conn/kW)	Energy Charges (Rs/KWh)
	Low Tension	Rs./KW/Month	Rs./kWh	Rs./KW/Month	Rs./kWh
1	Kutir Jyoti				
	Unmetered (Per	170.00	-	215	
	Connection) (Per				
	Month)				
	Metered	-	3.65		4.55
2	Domestic	-	-		
	First 100Units	60	3.7	70	4.45
	Next 100Units	60.00	4.2	70	5.05
	Above 200Units	60.00	5.7	70	6.85
3	Commercial				
	First 100Units	120	6.1	140	7.00
	Above 100Units	120	7.3	140	8.40
4	LT Industrial	120	6	145	7.20
5	Public Lighting(Metered)	120	6.5	145	7.80
6	LED fittings and Lamps	60	3.7	70	4.45
7	Public Water Supply	120	6.7	140	7.70
8	General Purpose	120	6.90	140	7.95
9	Agriculture	110	3	140	3.75
11	Electric Vehicle Charging Station	120	10.09		7.00
11	Crematorium Rs./connection/ Month	7000.00	4.1	8400	4.90
	High Tension	Rs./kVA/month	Rs/KWh	Rs./kVA/month	Rs./kVAh

SI.	Category	Existing T	ariff	Propose	ed Tariff
No		Fixed Charges	Energy	Fixed Charges	Energy Charges
		(Rs./Conn/kW)	Charges (Rs/KWh)	(Rs./Conn/kW)	(Rs/KWh)
12	Domestic	230.00	6.2	265	7.15
13	General	230.00	6.2	275	7.45
	Purpose/Bulk Supply				
14	Electric Vehicle	230	10.97		8.10
	Charging Station				
			Rs./kVAh		
15	Commercial	230.00	6.6	265	7.60
16	Industrial				
a)	Special Tariff		4.9		4.90
b)	Other HT Industries	230.00	6.6	265	7.60
17	Ferro Alloy	200	4.46	265	7.60
18	Public Water Supply	230	6.5	265	7.45
	<b>Extra High Tension</b>	Rs./kVA/month	Rs./kVAh	Rs./kVA/month	Rs./kVAh
19	Industrial				
a)	Special Tariff		4.9		4.90
b)	Other EHT Industries	230	6.2	275	7.45
20	Ferro Alloy	200	4.36	275	7.45

Table 2.6: Proposed Time of Day Tariff for FY 2021-22

Time Slot	HT Industrial	EHT Industrial	
0600 hrs to 1700 hrs (normal)	As Approved		
1700-2300 hrs (peak)	+20% of Normal		
2300-0600 hrs (night off-peak)	-15% of Normal		

# 2.7 MePDCL's request to the Commission

The applicant has requested, the Commission to pass appropriate order on the following:

- a) Approval of Net ARR for FY 2021-22, FY 2022-23 & FY 2023-24 as proposed in this Petition.
- b) Approval of tariff for FY 2021-22 as proposed in this petition.
- c) To pass such orders, as Commission may deem fit and proper and necessary in view of the facts and circumstances of the case.
- d) To condone any inadvertent omissions, errors & shortcomings and permit the applicant to add/change/modify/alter this filing and make further submissions as required.

# 3. Public Hearing Process

## 3.0 Public Hearing Process

Section 64 (2) of electricity act 2003 mandates the distribution licensee to publish the Tariff petition in an abridged format in the leading newspapers inviting the objections/suggestions on the Tariff petition from the stakeholders.

In pursuance of the publication of the Tariff petition in the leading newspapers, M/s Byrnihat Industries Association (BIA) has filed written suggestions/objections on the petition filed by the MePDCL seeking approval of ARR and Determination of Retail Tariff for FY 2021-22. The objections/suggestions by M/s. Byrnihat Industries Association (BIA) and the response of the licensee on the objections/suggestions and the Commission's views have been summarized under various sub-heads as given below.

## 3.1 Objections / Suggestions of Stakeholders

# **Byrnihat Industries Association (BIA)**

# A. <u>Power Purchase Cost</u>

- 3. The Petitioner/MepDCL has considered Sales and Power Purchase quantum in accordance with the Power Purchase quantum approved by this Hon'ble Commission in the Business Plan Order dated 09.10.2020. The Petitioner has not considered power procured from NHPC Loktak, from which MePDCL will start procuring from FY 2021-22. Further, MePDCL has additionally considered energy from NTPC Bongaigaon and other Solar Sources in its power purchase portfolio for the period FY 2021-24. Thus, MePDCL is claiming additional power purchase cost from what was approved in the Business Plan Order dated 09.10.2020.
- 4. The Power Purchase details for the period FY 2021-24 is contained in Table 17-19 of the instant Petition. The Petitioner has further explained source wise Cost of power purchase considered for estimating overall Power Purchase cost for the period FY

2021-24. The Objector is submitting the objections source wise regarding cost of power purchase as submitted by the MePDCL.

MePGCL

- 5. The MePDCL has claimed its estimates based upon the Hon'ble Commissions' approved AFC for the FY 2020-21 and has escalated the Annual Fixed Charges by 5% year on year for estimating its claim for FY 2021-24 period. At the outset, it is submitted that the Petitioner has not justified the claim for escalating the AFC for FY 2020-21 (as approved by the Petition) by 5% to estimate the AFC for FY 2021-22 and further years. As such, such claims of the Petitioner seeking 5% year-on-year increase should be rejected by this Hon'ble Commission.
- 6. As per the Objector, the allowable AFC for the period FY 2021-24 for MePGCL Generating stations is the following:

	As C	aimed by Peti	tioner	As per Objector's Assessment		
Particulars	FY 2021- 22	FY 2022-	FY 2023-	FY 2021-	FY 2022-	FY 2023-
		23	24	22	23	24
MePGCL Old stations (Umiam	137.60	164.83	240.71	35.35	35.77	37.26
Stage 1,2,3,4 and Sonapani)	137.00	104.85	240.71	55.55	55.77	57.20
Myntdu-Leishka HEP	221.68	216.94	212.83	150.23	144.00	138.01
New Umtru HE	116.57	113.90	111.30	66.24	63.96	61.72
Lakroh HEP	4.20	4.35	4.42	2.20	2.22	2.31
Total	480.05	500.02	569.26	254.02	245.95	239.30

ALLOWABLE AFC FOR MEPGCL OWN GENERATING STATIONS FOR FY 2021-24

(in Rs. Crore)

#### NTPC, NHPC, NEEPCO and OTPC

7. The Petitioner has only sought recovery of cost of power from NTPC Bongaigaon wherein it has considered the actual per unit rate of FY 2019-20 and has escalated the same by 5% year on year to estimate the claim for the period FY 2021-24. The Petitioner has estimated supplementary amount of Rs.5.84 Crore, 6.14 Crore and 6.44 Crore in respect of NTPC Bongaigaon for the FY 2021-22, FY 2022-23 and FY 2023-24 respectively. It is submitted that while projecting the power purchase cost, MePDCL has not justified the escalation and as such, the said claim ought not be allowed by the Hon'ble Commission.

- 8. The Petitioner has also only considered and sought recovery of power purchase from NHPC Loktak for the MYT period FY 2021-24. The Petitioner has considered the tariff approved by the Hon'ble Commission vide Order dated 20.03.2020 for MePDCL and escalated the same by 5% year on year to estimate the claim for the period FY 2021-24. For OTPC based plants also, the Petitioner has considered the actual per unit rate of FY 2019-20 and has escalated the same by 5% year on year to estimate the claim for the petitioner the claim for the period FY 2021-24.
- 9. For the NEEPCO plants, MePDCL has considered the actual rates of past years for estimating the charges for FY 2021-24 period. Further, for Kameng HEP, the levellized tariff of Rs. 4.14 /kW has been considered for the estimating the power purchase costs for the FY 2021-24 period.
- 10. At the outset, it is submitted that the Petitioner has not justified the basis of 5% escalation rate to estimate the tariff for FY 2021-22 and further years. As such, such claims of the Petitioner should be out rightly rejected by the Hon'ble Commission. Thetariff of NTPC, NHPC, NEEPCO and OTPC stations is determined by Hon'ble Central Electricity Regulatory Commission under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019. Regulation 10 of the aforesaid regulations provides as follows:

# *"10. Determination of tariff*

(4) In case of the existing projects, the generating company or the transmission licensee, as the case may be, shall continue to bill the beneficiaries or the long term customers at the capacity charges or the transmission charges respectively as approved by the Commission and applicable as on 31.3.2019 for the period starting from 1.4.2019 till approval of final capacity charges or transmission charges by the Commission in accordance with these regulations: Provided that the billing for energy charges w.e.f. 1.4.2019 shall be as per the operational norms specified in these regulations."

11. In accordance with the said submissions, it is submitted that the generating companies shall continue to charge the beneficiary at the existing tariff as applicable on 31.03.2019 until the final tariff is determined by the Hon'ble CERC. As the Tariff Order for the generating stations mentioned herein for the period FY 2019-24 is yet to attain finality, the generating stations shall continue to charge the beneficiary (MePDCL herein) on the Tariff applicable as of 31.03.2019. In the said regard, the Petitioner claim of any escalation for FY 2021-24 period is not tenable as per the CERC regulations 2019. The Hon'ble Commission is requested to kindly allow the Tariff for these Generating stations on actuals as on FY 2019-20 only and disallow any escalation proposed by the Petitioner.

# Solar Sources, Other Sources and Surcharge

- 12. The Petitioner submits that in order to achieve Solar RPO obligation as per the Meghalaya State Electricity Regulatory Commission (Renewal Energy Purchase Obligation and its Compliance) Regulations, 2018 it has planned to procure 20 MW (2x10) of power in the control period FY 2021-24. Further, the rate considered is at Rs. 3.5 /unit. The Petitioner further submits that as per the shortfall in the power availability, they shall procure power from short term sources. It is submitted that this Hon'ble Commission may allow MePDCL to procure RECs from the power exchange. The solar RECs are currently priced upto Rs. 1/unit and considering the past trends, will only become cheaper. This would be more competitive than procuring solar power @ Rs. 3.5/unit. Further, the cost pertaining to the same shall be considered at the time of True up.ThisHon'ble Commission may also be pleased to direct the Petitioner to comply with the regulations and routinely submit the RPO fulfillment/ status during the control period FY 2021-24.
- 13. The Hon'ble Commission is respectfully submitted to allow the Power Purchase Cost for the FY 2021-24 to the tune of Rs. 2,648.56 Crore for the period FY 2021-24.In view of the above submissions, the allowable Power Purchase Cost for the period FY 2021-24 is shown in the table below:

S. No	Source	Energy Received (Mu)	Total Cost (in Rs. Crore)	Energy Received (Mu)	Total Cost (in Rs. Crore)	Energy Received (Mu)	Total Cost (in Rs. Crore)
1	MePGCL						
	a) Umiam Stage-I HEP	114.61		114.61		114.61	
	b) Umiam Stage-II HEP	45.45		45.45	-	45.45	
	c) Umiam Stage-III HEP		-	45.45	-	45.45	
	d) Umiam Stage-IV HEP	137.33	35.35	-	35.77	-	37.26
		203.90	-	203.90		203.90	-
	e) Sonapani	4.94		4.94		4.94	
	f) Umtru HEP	-					
	g) Myntdu-Leishka HEP	478.71	150.23	478.71	144.00	478.71	138.01
	h) New Umtru HE	231.48	66.24	231.48	63.96	231.48	61.72
	i) Lakroh HEP	10.87	2.20	10.87	2.22	10.87	2.31
	j) Ganol HEP	-	-	66.20	30.42	66.20	30.39
2							
2	NTPC	580.50	278.08	580.50	270.00		270.00
	Bongaigoan	589.50	278.98	589.50	278.98	589.50	278.98
3	NHPC						
	a) Loktak HEP	40.28	14.46	40.28	14.46	40.28	14.46
4	NEEPCO						
	a) Kopili Stage-I	82.23	13.34	82.23	13.34	82.23	13.34
	b) Kopili Stage-II	8.48	1.28	8.48	1.28	8.48	1.28
	c) Khandong HEP	17.53	4.21	17.53	4.21	17.53	4.21
	d) Rangandai HEP	131.25	30.92	131.25	30.92	131.25	30.92
	e) Doyang HEP	23.65	12.26	23.65	12.26	23.65	12.26
	f) AGBPP	187.65	35.65	187.65	35.65	187.65	35.65
	g) AGTPP C-Cycle	119.00	35.54	119.00	35.54	119.00	35.54
	h) Pare	42.92	21.46	42.92	21.46	42.92	21.46
	i) Kameng	45.99	19.04	45.99	19.04	45.99	19.04
E	OTRO						
5	OTPC	426 70	125.22	426 70	125.22	426 70	125.22
	a) Pallatana	436.79	135.22	436.79	135.22	436.79	135.22
6	Solar Sources	39.42	13.80	39.42	13.80	39.42	13.80
7	Total	2,991.98	870.18	2,920.85	892.53	2,920.85	885.85
8	Average Power Purchase Cost (in Rs. kWh)	2.	91	3.0	06	3.03	

#### ALLOWABLE POWER PURCHASE COST FOR MEPDCL FOR THE PERIOD FY 2021-24

#### MePDCL's Reply

#### MePGCL

The MePDCL has claimed its estimates based upon the Hon'ble Commission's approved AFC for the FY 2020-21 and has escalated the AFC by 5% year on year for estimating its claim for FY 2021-24 period. The escalation factor of 5% is considered to absorb the inflation and also the likelihood of increase in AFC to be approved by the Hon'ble Commission in the near future.

MePDCL rejects the assessment of AFC by the Objector and reiterates that the AFC is as depicted in the Petition.

#### NTPC, NHPC, NEEPCO and OTPC

The MePDCL has claimed its estimates for NTPC based on the actual per unit rate of FY 2019-20 and has escalated the AFC by 5% year on year for estimating its claim for FY 2021-24 period. The escalation factor of 5% is considered to absorb the inflation and also the likelihood of increase in AFC to be approved by the Hon'ble Commission in the near future. MePDCL rejects the assessment of the Objector and reiterates that the Power purchase cost from NTPC is as depicted in the Petition.

The escalation factor of 5% is already explained and as such, MePDCL rejects the objection placed by BIA. That the tariff of NTPC, NHPC, NEEPCO and OTPC stations is determined by CERC is correct but as per the prevailing Regulations of CERC.

The Objector has objected to the escalation factor of 5% by stating that there is no provision in the Central Electricity Regulation Commission (Terms and Condition of Tariff) Regulations, 2019 that allows such escalation factor. BIA while quoting the section 10 sub section 4 of this Regulation, it emphasized the portion which relates to the billing of capacity charges, but it ignores the other part of the sub-section which speaks about the billing of energy charges. This section states as follows:-

#### "10.Determination of Tariff

(4) In case of the existing projects, the generating company or the transmission licensee, as the case may be, shall continue to bill the beneficiaries or the long term customers at the capacity charges or the transmission charges respectively as approved by the Commission and applicable as on 31.3.2019 for the period starting from 1.4.2019 till approval of final capacity charges or transmission charges by the Commission in accordance with these regulations:

Provided that the billing for energy charges w.e.f. 1.4.2019 shall be as per the operational norms specified in these regulations."

#### (Emphasis Supplied)

It therefore shows that energy charge cannot remain fixed even if there is no decision on Capacity charge.

It may also be pointed out that the CERC has given a timeline for the Generation station or transmission utility to apply for determination of tariff as per section 9 of the Central Electricity Regulation Commission (Terms and Condition of Tariff) Regulations, 2019 below:

#### "9. Application for determination of tariff

(2) In case of an existing generating station or unit thereof, or transmission system or element thereof, the application shall be made by the generating company or the transmission licensee, as the case may be, by 31.10.2019, based on admitted capital cost including additional capital expenditure already admitted and incurred up to 31.3.2019 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2019-24 along with the true up petition for the period 2014-19 in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014."

In line with the above timeline, NEEPCO, NTPC, NHP and OTPC have applied for approval of tariff by the CERC. It is just a matter of time that Hon'ble Commission will issue order(s) on these application(s).

Further, Section 10 of the Central Electricity Regulation Commission (Terms and Condition of Tariff) Regulations, 2019 provides as below:

*"10. Determination of tariff......* 

(7) The difference between the tariff determined in accordance with clauses (3) and (5) above and clauses (4) and (5) above, shall be recovered from or refunded to, the beneficiaries or the long term customers, as the case may be, with simple interest at the rate equal to the bank rate prevailing as on 1st April of the respective year of the tariff period, in six equal monthly instalments." Therefore as soon as the Tariff Order is issued by Hon'ble Commission, the Beneficiaries will have to pay in six equal installments in case of recovery as this is the most likely scenario.

Therefore to cushion the impact of approval of Capacity Charge by the Hon'ble Commission and the variable nature of Energy charges, an escalation factor of 5% is justified.

#### Solar Sources, Other Sources and Surcharge

The Objector has suggested to procure only RECs from power exchange at the rate of Rs. 1/unit instead of procurement of solar power at @ Rs. 3.5/unit.The cost of solar power proposed by MePDCL includes not only the RECs but also the energy. It is for this reason that the quantum of energy to be procured is also included in the total availability of unit. If only RECs are considered, then this quantum has to be less from the total availability. Further, the licensee plans to procure 20 MW power from the solar parks in the state (2\*10 MW) and 10 MW under PM Kusum Scheme. The licensee has considered capacity utilization factor of 15% to arrive at approximately 40 MUs of procurement for each year of the control period.

MePDCL rejects the power purchase cost of the Objector and submit before the Hon'ble Commission the power purchase cost year wise during the 3<sup>rd</sup> Control period as below:

		FY 20	21-22	FY 20	22-23	FY 20	23-24
SI	Source	Energy received (MU)	Total Cost (Cr)	Energy received (MU)	Total Cost (Cr)	Energy received (MU)	Total Cost (Cr)
1	MePGCL						
	a) Umiam Stage-I	114.61	16.28	114.61	17.10	114.61	17.96
	b) Umiam Stage-II	45.45	9.04	45.45	9.50	45.45	9.98
	c) Umiam Stage-III	137.33	27.14	0.00	14.25	0.00	14.97
	d) Umiam Stage-IV	203.90	27.14	203.90	28.50	203.90	29.94
	e) Sonapani	4.94	0.68	4.94	0.72	4.94	0.74
	f) Umtru HEP	0.00		0.00		0.00	
	g) Myntdu-Leshka HEP	478.71	181.04	478.71	190.08	478.71	199.58
	h) New Umtru HEP	231.48	103.66	231.48	108.84	231.48	114.30
	i) Lakroh HEP	10.87	4.22	10.87	4.42	10.87	4.64
	j) Ganol HEP	0.00		66.20	30.38	66.20	30.38
	m) Auxiliary						
	Consumption						
2	NTPC						
	a) Farakka	0.00	0.00	0.00	0.00	0.00	0.00
	b) Kahalgaon I	0.00	0.00	0.00	0.00	0.00	0.00

		FY 20	21-22	FY 2022-23		FY 20	23-24
SI	Source	Energy received (MU)	Total Cost (Cr)	Energy received (MU)	Total Cost (Cr)	Energy received (MU)	Total Cost (Cr)
	c) Kahalgaon II	0.00	0.00	0.00	0.00	0.00	0.00
	d) Talcher	0.00	0.00	0.00	0.00	0.00	0.00
	e) Bongaigaon	589.50	392.81	589.50	412.46	589.50	433.08
3	NHPC						
	a) Loktak HEP	40.28	15.18	40.28	15.94	40.28	16.74
4	NEEPCO						
	a) Kopili Stage-I	82.23	10.65	82.23	11.18	82.23	11.74
	b) Kopili Stage-II	8.48	1.33	8.48	1.39	8.48	1.47
	c) Khandong HEP	17.53	3.82	17.53	4.01	17.53	4.22
	d) Ranganadi HEP	131.25	34.63	131.25	36.37	131.25	38.19
	e) Doyang HEP	23.65	14.12	23.65	14.82	23.65	15.56
	f) AGBPP	187.65	86.47	187.65	90.84	187.65	95.36
	g) AGTPP C-Cycle	119.00	51.99	119.00	54.59	119.00	57.32
	h) Pare HEP	42.92	23.70	42.92	24.88	42.92	26.12
	i) Kameng HEP	45.99	19.04	45.99	19.04	45.99	19.04
	j) Free Power	65.00		65.00		65.00	
5	ОТРС						
	a) Pallatana	436.79	146.52	436.79	153.85	436.79	161.55
6	Solar Sources	39.42	13.80	39.42	13.80	39.42	13.80
	Total	3056.98	1183.26	2985.85	1256.96	2985.85	1316.68

# **Commission's Views**

Commission considers the reasonable allowance of power purchase cost for the Control period as per the MSERC MYT Regulations 2014.

#### B. TRANSMISSION CHARGES

14. The Petitioner in the instant petition has claimed PGCIL charges and MePTCL charges as shown in the table below:

	As Claimed by Petitioner (in Rs. Crore)				
Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)		
PGCIL Transmission Charges	98.93	103.87	109.07		
MePTCL Transmission Charges	156.43	195.91	209.62		

#### TRANSMISSION CHARGES CLAIMED BY MEPDCL FOR THE PERIOD FY 2021-24

- 15. The Petitioner for projecting the PGCIL charges for the period FY 2021-24 has considered actual transmission charges per unit for the FY 2018-19 and FY 2019-20 and escalated the same @5% to arrive at the estimates for FY 2021-22 to FY 2023-24.
- 16. As stated in the earlier paras, the Petitioner has not justified the Cost / unit escalation of 5% over FY 2019-20 actuals. It is imperative to point out that in the absence of any justification and documentary evidence, the Petitioner's claim is not tenable. Further, the CERC Tariff Regulations 2019 are clear on this regard as illustrated from below mentioned extracts:

*"10. Determination of tariff* 

(4) In case of the existing projects, the generating company or the transmission licensee, as the case may be, shall continue to bill the beneficiaries or the long term customers at the capacity charges or the transmission charges respectively as approved by the Commission and applicable as on 31.3.2019 for the period starting from 1.4.2019 till approval of final capacity charges or transmission charges by the Commission in accordance with these regulations:

Provided that the billing for energy charges w.e.f. 1.4.2019 shall be as per the operational norms specified in these regulations."

- 17. In view of the same, and as in the case of Central Generating stations, the FY 201920 actuals shall continue to be allowed for the control period FY 2021-24 unless any
  CERC Order is published in this regard.
- 18. Further, the Objector has already submitted detailed Suggestions/Objections in the petition filed by MePTCL for the control period FY 2021-24 in the matter of MYT Of Transmission Business For FY 2021-22 To FY 2023-24 & Determination Of Transmission Tariff For FY 2021-22. Accordingly, this Commission may be pleased to allow Annual Transmission Charges as per the Objector's submission as submitted below:

Particulars	As Claimed by Petitioner			As per Objector's Assessment		
	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
PGCIL Transmission Charges	98.93	103.87	109.07	98.93	103.87	109.07
MePTCL Transmission Charges	156.43	195.91	209.62	64.40	67.89	69.81
Total	255.36	299.78	318.69	163.33	171.76	178.88

# ALLOWABLE TRANSMISSION CHARGES FOR MEPDCL FOR THE PERIOD FY 2021-24

# MePDCL Reply

As stated in the earlier paras, the MePDCL has claimed its estimates for PGCIL charges based on the transmission charges of FY 2019-20 and has escalated the AFC by 5% year on year for estimating its claim for FY 2021-24 period. The escalation factor of 5% is considered to absorb the inflation and also the likelihood of increase in AFC to be approved by the Commission in the near future.

The Objector has objected to the escalation factor of 5% by stating that there is no provision in the Central Electricity Regulation Commission (Terms and Condition of Tariff) Regulations, 2019 that allows such escalation factor by quoting the section 10 sub section 4 of this Regulation. It may be pointed out that the CERC has given a timeline for the Generation station or transmission utility to apply for determination of tariff as per section 9 of the Central Electricity Regulation Commission (Terms and Condition of Tariff) Regulations, 2019 below:

"9. Application for determination of tariff......

(2) In case of an existing generating station or unit thereof, or transmission system or element thereof, the application shall be made by the generating company or the transmission licensee, as the case may be, by 31.10.2019, based on admitted capital cost including additional capital expenditure already admitted and incurred up to 31.3.2019 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2019-24 along with the true up petition for the period 2014-19 in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014."

In line with the above timeline, Power grid has applied for approval of tariff by the CERC. It is just a matter of time that Commission will issue order(s) on these application(s).

Further, Section 10 of the Central Electricity Regulation Commission (Terms and Condition of Tariff) Regulations, 2019 provides as below:

"10. Determination of tariff......

(7) The difference between the tariff determined in accordance with clauses (3) and (5) above and clauses (4) and (5) above, shall be recovered from or refunded to, the beneficiaries or the long term customers, as the case may be, with simple interest at the rate equal to the bank rate prevailing as on 1st April of the respective year of the tariff period, in six equal monthly instalments."

Therefore as soon as the Tariff Order is issued by Commission, the Beneficiaries will have to pay in six equal instalments in case of recovery as this is the most likely scenario.

Therefore to cushion the impact of approval of Transmission Charges by the Hon'ble Commission, an escalation factor of 5% is justified.

The transmission charges of MePTCL is claimed as projected by MePTCL. As the petition by MePTCL is in the know of the Commission, the Annual transmission charges may be revised as whatever the Commission deems proper. However, for the instant, suffice to say that the claim of transmission charges of MePTCL and depicted in the petition of MePDCL to remain. MePDCL, therefore, rejects the

transmission charges of MePTCL projected by BIA and reiterate its stance to the claim made in its petition.

#### Commission's View's

Commission considers the Transmission charges admissible as per the MSERC MYT Regulations 2014.

## C. GFA AND CAPEX

17. It is also mentioned that the Commission vide Order dated 09.10.2020 has approved Capex and capitalization to the tune of Rs. 1,604.00 Crore and Rs. 2,400.20 Crore for the Control period. The Petitioner in the instant Petition has claimed an additional Rs. 199.15 Crore towards installation of smart meters in the state of Meghalaya for the FY 2021-22. The Petitioner has claimed Capex and Capitalization for the period FY 2021-24 as per the Table below:

#### CAPITALIZATION AND CAPEX CLAIMED BY MEPDCL FOR THE PERIOD FY 2021-24

(in Rs. Crore)

Particulars	As Claimed by Petitioner					
	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)			
Сарех	573.80	441.64	429.60			
Capitalization	352.57	52.23	1,232.73			
Grant	153.42	52.23	1,230.50			
Loan	199.15	-	2.23			
Equity	-	-	-			

19. Under Regulation 91 of the MYT Regulations 2014, capital cost is provided as below:

# "91 Capital cost

The approved Business Plan of the Distribution Licensee shall be the basis for determining the annual allowable capital cost for each financial year for any capital expenditure project initiated on or after April 1, 2015.

The capital cost includes, the actual capital expenditure till the date of commercial operation of the licensees distribution system or part thereof within the scope of

project be subject to prudence check by the Commission. Scrutiny of the cost estimates by the Commission shall be limited to the reasonableness of the capital cost, financial plan, interest during construction, use of efficient technology, gestation period and such other matters relating to the system prior to the date of commercial operation and as considered by the Commission as approved for determination of tariff. In case of any abnormal delay in execution of the project causing cost and time overrun attributable to the failure of the utility the Commission may not approve the full capitalization of interest and overhead expenses.

For each capital expenditure project, the sum total of annual allowable capital cost from the date of commencement of such project till the date of commissioning shall be the original cost of such project.

The capital cost shall be allowed as specified in these Regulations" (Emphasis Supplied)

20. The highlighted extract of the above quoted regulations clearly states that the Cost estimates is subject to the reasonableness of the capital cost, financial plan, interest during construction, use of efficient technology, gestation period. In this regard, it is of utmost importance to illustrate via documentary evidence as to what efficient technology is incorporated to be planned, gestation period amongst others. However, MepDCL has not Submitted any justification of the cost nor quantified the levels of reduction in AT & C losses if such technology is adopted. In view of the above submissions, under the provisions of the Tariff Regulations 2014, the said expenditure ought not be allowed. The allowable Capitalization in view of the above submissions is shown below:

# ALLOWABLE CAPITALIZATION ALONG WITH FUNDING FOR MEPDCL FOR THE PERIOD FY 2021-24

Particulars	As Claimed by Petitioner			As per Objector's Assessment		
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24
	(Projected)	(Projected)	(Projected)	(Projected)	(Projected)	(Projected)
Grant	153.42	52.23	1,230.50	153.42	52.23	1,230.50
Loan	199.15	-	2.23	-	-	2.23
Equity	-	-	-	-	-	-
Capitalization	352.57	52.23	1,232.73	153.42	52.23	1,232.73

Meghalaya State Electricity Regulatory Commission

The Petitioner has considered Rs. 438.94 Crore as opening Capital Cost for the FY 2018-19 for the computation of opening balances for FY 2021-22 for its Distribution Business. It is relevant to point out that the Hon'ble Commission while conducting the True up proceedings for the FY 2017-18 had approved closing GFA as Rs. 349.34 Crore for the FY 2017-18. The relevant extracts of the said order dated 13.10.2020 is extracted below:

Sl.No	Particulars	Rs.in Cr
1	GFA as on 31.03.2017	349.34
2	Debt component (70% of GFA)	244.54
3	Equity component (30% of GFA)	104.80
4	GFA as on 31.03.2018	349.34
5	Average Assets (1=4)/2	349.34
6	Less: Grants Received on FY 2017-18	
7	As per note 9.5.1 & 11 of the audited Accounts	183.60
8	Net Capital Cost of ROE	165.74
9	30% equity capital	49.72
10	ROE at 14%(49.72*14%)	6.96

# Computation of return on Equity for True up FY 2017-18

22. In light of this Commission's order dated 13.10.2020, the GFA opening balance of Rs. 349.34 Crore may be considered as the opening balance for the FY 2018-19.In accordance with the observations made above, this Commission is requested to allow the Capital Cost and GFA for the period FY 2021-24 is illustrated in the table below:

#### GFA ALLOWABLE FOR THE PERIOD FY 2021-24

(in Rs. Cr)

Particulars	As Claimed by Petitioner			As per Objector's Assessment		
	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Opening GFA	1,440.79	1,793.36	1,845.59	1,315.04	1,468.46	1,520.69
Addition during the Year	352.57	52.23	1,232.73	153.42	52.23	1,232.73
Retirement during the Year	-	-	-	-	-	-
Closing GFA	1,793.36	1,845.59	3,078.32	1,468.46	1,520.69	2,753.42
Average GFA	1,617.08	1,819.48	2,461.96	1,391.75	1,494.58	2,137.06

### **MePDCL Reply**

The cost estimates, gestation period etc is explained in the Business plan vide letter No. MePDCL/SE (RA)/BP/FY 2021-24/2020/31 Dated 9th November, 2020. MePDCL therefore rejects the calculation of Capitalization submitted by the Objector.

The Hon'ble Commission in the true up order dated 13.10.2020 had approved closing GFA as Rs. 349.34 for the FY 2017-18. Against this, MePDCL had filed a review and is under sub-judice. The reason for such review is because the addition during the year of Rs. 92.07 Cr and retirements during the year of Rs 0.15 Cr were not considered. Moreover, as explained in the petition, the Opening GFA is as per actual based on the audited statement. MePDCL therefore rejects the submission of the Objector and claim the GFA as submitted in the petition.

### Commission's View's:

Commission considers the capital cost of the utility considering the impending addition into the Gross Block as per the Regulations.

### D. INTEREST AND FINANCE CHARGES ON LOAN CAPITAL

23. The Petitioner has claimed Rs. 205.47 Crore, Rs. 197.59 Crore and Rs. 182.19 Crore towards Interest and Finance Charges considering the interest rates at 10.01%, 9.93% and 9.89% respectively for the FY 2021-24. The Petitioner has considered opening Loan balance as Rs. 537.58 Crore for the FY 2018-19 for the computation of opening Loan balances for FY 2021-22 for MyntduLeshkaHydro Electric Project. It is relevant to point out that this Hon'ble Commission while conducting the True up proceedings for the FY 2017-18, had approved closing Loan balance as Rs. 103.84 Crore for the FY 2017-18.

The relevant extracts of the said Order (dated 28.09.2020) is illustrated below.

s. no	Particulars	Opening balance	Add. During year	Re payment	Closing Loan	Interest
		(1)	(2)	(3)	(4)	(5)
1	Opening balance					
	a) 8% restructured REC loan	37.95		5.42	32.53	2.82
	b) 9% PFC loan RAPDRP-A	10.19	2.00		12.19	1.00
	c) 9% PFC loan R-APDRP-B	47.92	11.20		59.12	4.82
2	Total	96.06	13.20	5.42	103.84	8.64
3	Average Loan				99.95	
4	Average Rate of Interest (8.64%)					
5	Interest and Finance Charges					8.64

Schedule of loans and interest and Finance charges for FY 2017-18

24. Regulation 32 of the MYT Regulations 2014 in respect of Interest on Loan Capital states as follows:

# *"32 Interest and finance charges on loan capital*

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 lending rate specified therein.

Provided that the outstanding loan capital shall be adjusted to make it consistent with the loan amount determined in accordance with regulation 27.

The interest and finance charges attributable to capital work in progress shall be excluded.

Provided that neither penal interest nor over due interest shall be allowed for computation of tariff.

The Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be, shall make every effort to re□finance the loan as long as it results in net savings on interest and in that event the costs associated with such re□financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be, in the ratio of 50:50.

In case any moratorium period is availed of in any loan by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated, as repayment during those years and interest on loan capital shall be calculated accordingly."

25. As per the additions as proposed to be allowable in preceding sections to the GFA, the normative loan additions have been considered. It is pointed out that since the opening balances for FY 2018-19 are not in line with Hon'ble Commission's approved numbers, the rate of interest derived out of it is also not considerable. As such, the Hon'ble Commission is requested to kindly consider the Weighted Average Interest Rate as approved by the Hon'ble Commission for the True up for FY 2017-18. The computation of weighted average rate of Interest allowable for the period FY 2021-24 is illustrated in the table below:

Particulars	Approved by Hon'ble Commission vide Order dated13.10.2020)
Opening Loan Balance (Rs. Crore)	96.06
Closing Loan balance (Rs. Crore)	103.84
Actual Interest paid during the year (Rs.Crore)	8.64
Weighted average Rate of Interest (%)	8.64%

- 26. Further, the MeECL apportioned expenses pertaining to Interest and Finance Charges is not tenable as per the methodology adopted by the Hon'ble Commission in its order dated 28.09.2020. This Hon'ble Commission had held that interest costs claimed on MECL loans are not considered since the Regulation provides for interest cost only on capital loans borrowed by generation, transmission and distribution utilities. The Petitioner has not submitted any documentary evidence in favour of the Interest expenses under MeECL expenses. In view of the same, the expenses pertaining to MeECL Interest and Finance Charges is not tenable and ought to be disallowed by the Hon'ble Commission.
- 27. Accordingly, the Hon'ble Commission is respectfully submitted to allow Interest charges to the tune of Rs. 6.22Crore as against Rs. 585.25 Crore claimed by the Petitioner for the FY 2021-24 as illustrated in the tables below:

### INTEREST ON LOAN CLAIMED BY THE PETITIONER FOR THE PERIOD FY 2021-24

(Rs.Cr)

	As Claimed by Petitioner								
Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)			
Opening balance	537.58	527.87	521.52	1,992.40	1,912.07	1,859.60			
Addition during the Year	28.62	26.28	1,527.33	2.09	2.16	2.23			
Repayment during the Year	38.33	32.63	56.46	82.41	54.63	247.04			
Closing balance	527.87	521.52	1,992.39	1,912.08	1,859.60	1,614.79			
Average Loan	532.73	524.70	1,256.96	1,952.24	1,885.84	1,737.20			
Interest Rate (%)	11.26%	11.19%	10.36%	10.01%	9.93%	9.89%			
Interest on Loan	59.98	58.71	130.22	195.42	187.26	171.81			
Other finance charges	0	1.76	1.85	1.94	2.04	2.14			
MeECL apportioned expenses	0.81	3.91	8.14	8.18	8.23	8.27			
Total Interest and Finance Charges	60.79	64.38	140.21	205.54	197.53	182.22			

#### ALLOWABLE INTEREST ON LOAN FOR THE PERIOD FY 2021-24

(Rs. Cr)

		ŀ	As per Objecto	r's Assessment		
Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Opening balance	103.84	68.23	35.60	-	-	-
Addition during the Year	2.72	-	1.70	-	-	2.23
Repayment during the Year	38.33	32.63	37.30	-	-	-
Closing balance	68.23	35.60	-	-	-	2.23
Average Loan	86.03	51.91	17.80	-	-	1.12
Interest Rate (%)	8.64%	8.64%	8.64%	8.64%	8.64%	8.64%
Interest on Loan	7.43	4.49	1.54	-	-	0.10
Other finance charges	-	1.76	1.85	1.94	2.04	2.14
MeECL apportioned						
expenses	-	-	-	-	-	-
Total Interest and Finance Charges	7.43	6.25	3.39	1.94	2.04	2.24

## MePDCL's Reply

The opening Balance of Rs. 537.58 Cr and Closing Balance of Rs. 527.87 are as per actual of the audited statement for FY 2018-19.

MePDCL rejects the methodology adopted by the Objector in calculating the Weighted average Rate of Interest as the GFA was already explained in Para 23.

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 new loans projected to be taken based on the approved capital investment plan for the control period. The details of the loan statement for actual FY 2018-19, FY 2019-20, estimated FY 2020-21 and projected FY 2021-22, FY 2022-23 and FY 2023-24 along with the interest accrued component for both MeECL and MePDCL is given in Format 7, Annexure I

MePDCL therefore, rejects the assessment of objector and reiterates that the interest and finance charge on loan capital is as depicted in the petition.

#### Commission's View's

Commission considers Interest and Finance charges on outstanding loans as of the beginning of the Financial Year and addition against the Projected CAPEX for the control period as per the Regulations.

#### E. DEPRECIATION

28. The Petitioner has claimed Rs. 53.69 Crore towards Depreciation for the control period FY 2021-24. The MYT Regulations 2014 w.r.t. Depreciation states as under:

"33 Depreciation

33.1 For the purpose of tariff determination, depreciation shall be computed in the following manner:

a) The asset value for the purpose of depreciation shall be the historical cost of the assets as approved by the Commission where:

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

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

- c) The salvage value of the assets shall be considered at 10% and depreciation shall be allowed upto maximum of 90 % of the capital cost of the asset.
- Depreciation shall be calculated annually as per straight-line method at the rates specified in CERC (Terms and Conditions of Tariff) Regulations, 2009 as may be amended from time to time.
   Provided that land is not a depreciable asset and its cost shall be excluded

from the capital cost while computing the historical cost of the asset.

- e) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro- rata basis.
- f) The remaining depreciable value as on 31st March of the year closing after a period of 12 years from the date of commercial operation shall be spread over the balance useful life of the asset."
- 29. The Petitioner has claimed asset class wise depreciation as per the table 23-28 of the instant Petition. It is respectfully pointed out that the Petitioner has not mentioned the rates considered for each asset class. The submission also is also void of the substance of how many assets have depreciated to the tune of 90%. In the absence of such information in the face of record, this Hon'ble Commission may be pleased to allow the weighted average rate of depreciation as approved for the True up for FY 2017-18 for the FY 2021-24 period as well. Accordingly, this Hon'ble Commission may allow Rs. 20.25 crores as against Rs. 53.69 crores for the period FY 2021-24 as shown in the table below:

	As per objectors Assignment									
Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)				
Opening GFA (less land)	348.92	352.80	352.80	1,314.62	1,468.04	1,520.27				
less: Grants	183.60	183.60	183.60	1,143.72	1,297.14	1,349.37				
Net Opening GFA	165.32	169.20	169.20	170.90	170.90	170.90				
Addition during the Year (less grant)	3.88	-	1.70	-	-	2.23				

## DEPRECIATION ALLOWABLE FOR THE PERIOD FY 2021-24 (Rs.Cr)

Closing GFA	169.20	169.20	170.90	170.90	170.90	173.13
Average GFA	167.26	169.20	170.05	170.90	170.90	172.02
Rate of Depreciation	4.38%	4.38%	4.38%	4.38%	4.38%	4.38%
Depreciation	6.59	6.67	6.70	6.74	6.74	6.78

### **MePDCL Reply**

The rates considered for each asset class is already given in Format 6, Annexure I of the petition. The method of calculating the depreciation is as per section 33 of the MSERC Multi Year Tariff Regulations 2014 which is given below:

"33 Depreciation......

c) The salvage value of the assets shall be considered at 10% and depreciation shall be allowed upto maximum of 90 % of the capital cost of the asset.

d) Depreciation shall be calculated annually as per straight-line method at the rates specified in CERC (Terms and Conditions of Tariff) Regulations, 2009 as may be amended from time to time."

MePDCL therefore rejects the methodology adopted by the Objector and sticks by our petition.

### **Commission's Views**

Commission considers the Depreciation on the Gross Block of the Assets and projected Capitalization during the Control period as per the Regulations.

### F. RETURN ON EQUITY

- 30. The Petitioner has claimed Rs. 101.99 Crore towards Return on Equity for the period FY 2021-24 considering rate of Return on Equity @14%.However, the Petitioner does not propose to finance any capitalization using equity means as evident from the Petition shown below:
- 31. The MYT Regulations, 2014 provides for RoE as below:

### "27 Debt-Equity Ratio

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.

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.

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

### 31 *Return on Equity*

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."
- 32. As per the submissions made in the preceding sections, the funding of the capitalization is fully from grants and debt components and none from equity. As such, as per the Regulation 27 of the Tariff Regulations 2014, no additional Return on Equity shall be allowable for the period FY 2021-24. It is also submitted that the Petitioner for FY 2019-20 and FY 2020-21 has not submitted the actual equity and debt for the amount to be capitalized. In the said regard, the Return on Equity for FY 2018-19 shall be allowable for the period FY 2021-24. The Hon'ble Commission may be pleased to allow the Return on Equity as approximately Rs. 77.11 Crore as against Rs. 101.99 Crore claimed by the Petitioner for FY 2021-24 period as shown below:

	As per Objector's Assessment							
Parti cular s	FY 2018- 19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021- 22 (Projected)	FY 2022- 23 (Projected)	FY 2023- 24 (Projected)		
Opening GFA	349.34							
Additions	3.88							
Closing GFA	353.22							
Average GFA	353.22							
Less: Average grants	183.6							
Net GFA	169.62							
Rate of Return on Equity (14%)	14%							

### RETURN ON EQUITY ALLOWABLE FOR THE PERIOD FY 2021-24

Return on Equity	25.70	25.70	25.70	25.70	25.70	25.70
Grand Total						77.11

### **MePDCL's Reply**

The Licencee has followed the consistent approach of Hon'ble Commission for calculation on Return of Equity which differs from our earlier methodology. MePDCL reiterates that that the issue of Return on Equity (methodology of MEECL & its subsidiaries versus methodology of MSERC: APTEL Case no 46 of 2016) is still under subjudice. The licensee has also challenged the methodology in the review petition of true up FY 2016-17 whose order is still awaited from the Hon'ble Commission. *In case of a favourable order to the Licensee with respect to the methodology adopted for return on equity, the Licensee will reclaim/adjust the additional claim of return on equity in the subsequent tariff petitions. At present, the petitioner, in this instant petition, have claimed return based on the methodology adopted by the Commission in its past orders to avoid ambiguities in figures/calculation. The details have been clearly given in the Table 21 & 22 of the petition.* 

As stated in earlier Paras, MePDCL therefore rejects the methodology adopted by the Objector for calculation of Return on Equity.

### **Commission View's**

Commission considers Return on Equity after adjusting the Grants and contributions from the capital cost for the control period as per the Regulations.

## G. O&M EXPENSES

33. While claiming O & M expenses for the present control period, the Petitioner has made following assumptions with respect to the said claim – (i) RoP impact to the tune 27% over FY 2019-20 expenses for estimating the claim for the control period; (ii) Basic pay increment of 3%, DA increment of 2.75% and other components as % of basis pay in proportion as in FY 2019-20 expenses; and (iii) MeECL expenses over and above MePDCL expenses in its overall claim. The Petitioner has claimed Operation and Maintenance for the control period FY 2021-24 as per the various heads as illustrated below:

	As Claimed by Petitioner									
Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)				
Employee Cost	142.67	159.82	206.66	219.41	232.74	246.67				
Employee MeECL	5.07	5.45	7.10	7.39	7.69	8.00				
R&M Cost	4.00	5.86	6.15	6.46	6.78	7.12				
R&M MeECL	0.1	0.04	0.05	0.05	0.05	0.05				
A&G Cost	9.82	11.24	29.18	29.77	30.39	31.04				
A&G MeECL	0.98	2.48	2.6	2.73	2.87	3.01				
Total O&M	162.64	184.89	251.74	265.81	280.52	295.8				

## ALLOWABLE POWER PURCHASE COST FOR MEPDCL FOR THE PERIOD FY 2021-24

### 34. The MYT Regulations RE 2014 with respect to O&M Expenses provides as under:

"94. Operation and Maintenance Expenses

Operation and Maintenance Expenses or O&M Expenses shall mean the total of all expenditure under the following heads:

- Employee Cost
- Repairs and Maintenance
- Administration and General Expenses.

The distribution Licensee shall submit to the Commission a statement for O&M expenses indicating under each head of account the actuals of last year, estimates for the current year and projections for the ensuing years. The O & M expenses for the first year of the control period shall be approved by the Commission taking into account the actual expenses for the past and norms/prudence check.

The Commission shall ensure that the O&M expense are in accordance with the norms fixed by the Commission, and any excess or shortage over the norm shall have to be justified by the licensee.

In the absence of any norms for O&M expenses, the Commission shall determine operation and maintenance expenses based on prudence check of the estimates submitted by the licensee and consumer price index/wholesale price index/inflation. Increase in O& M expenses due to natural calamities or insurgency or other factors not within the control of the distribution licensee may be considered by the Commission for determination of tariff."

- 35. In the past, this Commission in the absence of any norms, by order dated 13.10.2020, has approved the O&M Expenses for the True up of FY 2017-18 on the basis of actuals. The Petitioner has escalated the O&M expenses for FY 2019-20 by 27% to arrive at FY 2020-21 figures. The Petitioner submission for the 27% escalation does not qualify under any of the above Regulatory provisions. Moreover, the computation of the RoP impact has been done at MeECL level and not on standalone basis for MePDCL, MePGCL and MePTCL. The employee expenses escalation considered by the Petitioner for estimating the claim for the Control period FY 2021-24 is on the salary component level. It is pointed out that in absence of any norms, the other State Commissions' use CPI inflation indices to determine O&M expenses as a whole. The said indices account for the variations that may creep in while escalating the expenses on component level. In view of the same, the Objector submits that the actual O&M expenses for FY 2018-19 be escalated by CPI index of the same year to estimate employee, R&M and A&G expenses for the period FY 2019-20 and beyond. This Commission may allow the Objector to submit further on the CPI indices adopted by other State Commissions during the time of hearing.
- 36. The Petitioner has also escalated the MeECL expenses considering the factors as above. It may be submitted that the expenses pertaining to the Holding company do not directly qualify for claim under the Tariff Regulations 2014. Such claims in view thereof are not tenable. In view of the above submissions, the allowable O&M Expenses for the period FY 2021-24 is as shown in the table below:

	As per Objector's Assessment								
Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)			
Employee Cost	142.67	148.78	155.05	161.60	168.42	175.52			
Employee MeECL	5.07	5.07	5.07	-	-	-			

O&M EXPENSES ALLOWABLE FOR THE PERIOD FY 2021-24

R&M	4.00	4.17	4.35	4.53	4.72	4.92
R&M MeECL	0.10	0.10	0.10	-	-	-
A&G	9.82	10.24	10.67	11.12	11.59	12.08
A&G MeECL	0.98	0.98	0.98	-	-	-
Total O&M	162.64	169.34	176.22	177.25	184.73	192.53

### MePDCL'S Reply

The increase in O&M of MePDCL is because of the impact of ROP. It may be mentioned here during the beginning of implementation of ROP, Employee expenses cannot be limited within the 5% norms. Section 6(6) of The MEGHALAYA POWER SECTOR REFORMS TRANSFER SCHEME 2010 notified on 13.03.2010 states

*"(6)* The transfer and further deputation of personnel shall be subject to the following conditions, namely, -

(a) That the terms and conditions of the services applicable to personnel on the effective date of transfer shall not in anyway be less favourable than those applicable to them immediately before the said effective date of transfer. Accordingly the salary, allowances and other pecuniary benefits including terminal benefits applicable on the effective date of transfer shall be protected and shall not be adversely changed;

(b) All such personnel shall have continuity of service in all respects;

(c) All benefits of service accrued before the said effective date of transfer shall be fully recognized and taken into account for all purposes including the payment of terminal benefits;"

Before corporatization, Meghalaya State Electricity Board (MeSEB) had a policy for revising pay scale of employees every 5 years. Further, at the time of corporatization in the year 2010, the Management and Employees Association have mutually decided that the earlier policy of revision of pay will continue in future.

ROP itself is right of the employees and it is influenced by other factors. ROP is given based on the normal practice of revising the pay every five years as was done earlier.

The last Pay revision was notified on 15<sup>th</sup> May 2017 which was made effective from 1<sup>st</sup> January 2015. The present ROP was notified on 19<sup>th</sup> November 2019 and made effective from 1<sup>st</sup> January 2020. Therefore, the jump of expenditure is only for 2020-21 and is a one-time increase which always happens during the effective date of implementation.

It may be noted that the Hon'ble Commission has disallowed the terminal benefit in the true up order dated 13.10.2020. In this order, the Hon'ble Commission has approved Employee Expenses at Rs.96.12 (92.04+4.08) Crore for True up of FY 2017-18. While approving this cost, the Commission has stated

"The Terminal benefit liabilities of Holding Company of Rs.36.46 Crore shall be born out of the Trust fund constituted for the purpose in the reforms and restructuring process and hence not considered in ARR."

MePDCL has filed a review on this true up order and is under sub-judice. However, MePDCL would like to submit that MeECL has not received the contribution from the State Government for the Corpus Fund, amounting to Rs 840 Crore as on 31.03.2010, which would have been used to clear up the pension liabilities as agreed in Transfer Notification Scheme and to enable to maintain the trust fund. In the absence of assistance from the State Government, there has been no subsequent yearly/monthly transfer to the trust fund which would have catered to the terminal benefit liabilities of MeECL. The terminal benefit liabilities will therefore be borne from its revenue from tariff based on the actual payment basis. As of today, the trust fund remains non-functional but remains only as the Drawing & Disbursing authority. It is therefore, submitted before the Commission not to disallow the terminal benefit which is in accordance with the Section 6(6) of The MEGHALAYA POWER SECTOR REFORMS TRANSFER SCHEME 2010.

The increase in O&M of MeECL is because of the impact of ROP. In view of this and above submissions, MePDCL rejects the calculations of O&M expenses by the Objector and reiterates that the claim of O&M expenses be as given in the petition.

### Commission's Views

Commission considers Employee expenses as part of the O&M expenses which shall be met from the Tariffs, and accordingly the claim of the MePDCL shall be Regulated at actuals.

### H. INTEREST ON WORKING CAPITAL

37. The Petitioner has claimed Rs. 17.78 Crore towards Interest on Working Capital for the period FY 2021-24.The MYT Regulations 2014 with respect to Interest on Working Capital states as under:

"34. Interest on Working Capital

34.1 Generation:

- (iii) In case of hydro power generating stations, working capital shall cover:
  - Operation and maintenance expenses for one (1) month;
  - Maintenance spares at the rate of 15% of O & M expenses escalated at 6% from the date of commercial operation; and
  - Receivables equivalent to two (2) month of fixed cost:

Provided that in case of own generating stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations.

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

38. In view of the aforesaid submissions, each expense item of the ARR, the consequential Interest on Working Capital allowable for the period FY 2021- 24 is shown below:

	As Claimed by Petitioner			As per Objector's Assessment			
Particulars	FY 2021-	FY 2022-	FY 2023-	FY 2021-	FY 2022-	FY 2023-	
	22	23	24	22	23	24	
	(Projected)	(Projected)	(Projected)	(Projected)	(Projected)	(Projected)	
O&M for 1 Month	22.15	23.38	24.66	14.77	15.39	16.04	
Maintenance Spare	17.14	19.29	26.10	15.27	19.01	19.56	
Receivable for 2 Month	276.68	302.27	317.81	140.95	149.87	153.55	
Total	315.97	344.93	368.56	171	184.27	189.16	
Interest Rate (%)	12.15%	12.15%	12.15%	12.15%	12.15%	12.15%	
Interest on Working Capital	38.39	41.91	44.78	20.78	22.39	22.98	
Grand Total	125.08				66.72		

#### INTEREST ON WORKING CAPITAL ALLOWABLE FOR THE PERIOD FY 2021-24

#### MePDCL'S Reply

MePDCL hereby reaffirms its claim on O&M, GFA, Short lending rate with proper justification and hence prays to Commission to kindly allow the proposed ROWC as stated in the petition

#### **Commission's View**

Commission considers the interest on working capital as per the Regulations

### I. SALE OF SURPLUS POWER

- 39. The Petitioner has estimated Rs. 606.32 Crore towards Sale of Surplus Power for the Control period FY 2021-24 considering at an average rate of Rs. 2.20 / kWh. The Petitioner has considered the surplus power quantum in accordance with the Hon'ble Commissions' Order dated 09.10.2020.
- 40. At the outset, it is submitted that the Petitioner in the instant Petition has estimated Power purchase from additional sources viz. NTPC Bongaigaon (589.50 Mus for each year of the control period) and Solar Power (39.42 Mus for each year of the control period). The Petitioner has not accounted the energy from these sources while computing the surplus energy. In the said regard, the Objector herein has worked out the energy from these sources towards surplus computation for the control period.
- 41. Further, the Petitioner has considered the rate of Rs. 2.20 / kWh towards sale of surplus power. While the Average power purchase cost as per the Petitioner's

submission is Rs. 3.81/ kWh for the FY 2021-22 (ref Table 17 of the Petition), the Petitioner has considered the sale of same power at Rs. 2.20/ kWh. This is in stark contrast to the ethical trade practices as the Petitioner would be incurring an average loss of Rs. 1.61 /kWh. This Hon'ble Commission may reject the Petitioner's submissions and allow sale of surplus power in accordance with the Average power purchase cost as computed by the Objector herein in the preceding sections so as to trade at no profit no loss. The computation of the Cost towards sale of surplus power for the Control period is demonstrated below for the kind consideration of the Hon'ble Commission:

### ALLOWABLE COST FOR SURPLUS POWER FOR MEPDCL FOR THE PERIOD FY 2021-24

Particulars	FY 2021-22	FY 2022-23	FY 2023-24
Energy purchased from the Eastern Region (ER)	-	-	-
Inter-state transmission loss for ER	1.80%	1.80%	1.80%
Net power purchased from the ER	-	-	-
Power purchased from the North –Eastern Region (NER)	1,725.27	1,725.27	1,725.27
Inter-state transmission loss for NER	3%	3%	3%
Net power available at state bus from external sources on long term	1,673.51	1,673.51	1,673.51
Power purchased from generating stations within the state	1,227.29	1,156.16	1,156.16
Power purchased from other sources	39.42	39.42	39.42
Total Energy available	2,940.22	2,869.09	2,869.09
Intra State Transmission loss at 4%	117.61	114.76	114.76
Total availability at MePDCL Periphery	2,822.61	2,754.33	2,754.33
Power to be sold to consumers within the state (including ASEB)	1,422.69	1,456.95	1,491.96
Distribution Losses (%)	12%	12%	12%
Net power requirement at MePDCL periphery for sale of power within the state	1,616.69	1,655.63	1,695.41
Surplus Power (for sale outside state)	1,205.92	1,098.70	1,058.92
Average power purchase cost (Rs./ kWh)	2.91	3.06	3.03
Surplus Power purchase cost (in Rs. Crore)	350.73	335.73	321.15

### MePDCL's Reply

MePDCL vide its letter No. MePDCL/SE (RA)/BP/FY 2021-24/54 Dt 12-02-21 has submitted a revised Sale of surplus Power after considering the Free power of 65 MU from NEEPCO. The Surplus power to be sold outside is projected as below:

SI No	Particulars	Calculation	2021-	2022-	2023-
			22	23	24
1	Energy purchase from Eastern Region (ER)	A	0	0	0
2	Inter-State Transmission Loss in ER	В	1.80%	1.80%	1.80%
3	Net Power purchased from ER	C=A(1-B%)	0	0	0
4	Power purchase from North Eastern Region (NER)	D	1829.69	1829.69	1829.69
5	Inter-State Transmission Loss in NER	E	3%	3%	3%
6	Net Power available at state bus from external sourcess on long term	F=(C+D)*(1- E%)	1774.8	1774.8	1774.8
7	Power purchase from generating stations within the state	G	1227.29	1156.16	1156.16
8	Power purchase from other sources	Н	0	0	0
9	Total energy available	I=F+G+H	3002.09	2930.96	2930.96
10	Intra state transmission loss at 4%	J=I*4%	120.08	117.24	117.24
11	Total avaiability at MePDCL periphery	K=I-J	2882.01	2813.72	2813.72
12	Power to be sold to consumers within the state (including ASEB)	L	1470.79	1547.38	1627.37
13	Distribution Loss (%)	М	12%	12%	12%
14	Net Power requirement at MePDCL periphery for sale of power within the state	N=L/(1-M%)	1671.35	1758.39	1849.28
15	Surplus of power ( for sale outside state)	O=K-N	1210.66	1055.33	964.44

Energy Balance for the Control Period FY 2021-22 to FY 2023-24 (MU)

The Objector has claimed that the rate of sale of surplus of power to be Rs 3.81/kWh for the FY 2021-22 same as that of the average power purchase cost instead of Rs 2.20/ kWh proposed by MePDCL. The claim of Objector that the rate of sale should be the same as the rate of purchase is not correct because time and period of sale of surplus power are different from time and period of purchase of shortage power. Also, the quantum of sale is different from the quantum of purchase. MePDCL reiterates that the rate of sale of surplus of power is Rs 2.20/ kWh as explained in the petition. The revenue from the sale of surplus power is indicated below:

Expected Revenue from Sale of Surpl	us power for the Control Period FY 2021-22 to FY 2023-24

SI No	Particulars	2021-22	2022-23	2023-24
1	Surplus of power (MUs)	1210.66	1055.33	964.44
2	Rate for Sale of Surplus Power/ KWh	2.20	2.20	2.20
3	Revenue in Cr	266.35	232.17	212.18

### Commission's Views

Commission noted the Suggestion and the Response of MePDCL.

### J. ARR FOR FY 2021-22 TO FY 2023-24 & TARIFF FOR FY 2021-22

42. In accordance with the Objections submitted in the previous sections, the Objector has computed the Annual Fixed Charges for the Petitioner, MePDCLfor the period FY 2021-24 as shown below:

	As Cla	aimed by Petit	ioner	As per O	bjector's Asse	essment
Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Power Purchase Costs	1,139.15	1,210.59	1,267.96	870.18	892.53	885.85
PGCIL Transmission Charges	98.93	103.87	109.07	98.93	103.87	109.07
MePTCL Transmission Charges	156.43	195.91	209.62	64.40	67.89	69.81
Interest on Loan capital	205.47	197.59	182.19	1.94	2.04	2.24
Depreciation	14.42	19.65	19.62	6.74	6.74	6.78
O&M Expenses	265.81	280.52	295.89	177.25	184.73	192.53
Interest on working capital	38.39	41.91	44.78	20.78	22.39	22.98
Return on Equity	32.54	31.68	37.77	25.70	25.70	25.70
Bad and Doubtful Debts	3.75	3.75	3.75	3.75	3.75	3.75
Gross ARR	1,954.89	2,085.47	2,170.65	1,269.67	1,309.63	1,318.71
Less: Other Income	73.22	74.71	76.25	73.22	74.71	76.25
Less: Sale of surplus power	221.60	197.17	187.55	350.73	335.73	321.15
Net ARR	1,660.07	1,813.59	1,906.85	845.72	899.19	921.30

### ANNUAL REVENUE REQUIREMENT (ARR) ALLOWABLE FOR THE PERIOD FY 2021-24

43. This Hon'ble Commission while conducting the True up for FY 2017-18, by order dated 13.10.2020 has approved Rs. 112.05 Crore as Revenue Gap. The Petitioner in the instant petition has claimed this Revenue Surplus along with the ARR for FY 2021-22. Further, the Petitioner has projected Revenue of Rs.963.62 Crore for the FY 2021-22 at existing Tariff rates. In line with the submissions made above, this Hon'ble Commission may consider that the Petitioner has revenue surplus of Rs. 5.85 crores as illustrated below, thereby obliviating any need for further tariff hike in the state:

Particulars	As Claimed by Petitioner	As per Objector's Assessment
ARR for the FY 2021-22	1,660.07	845.72
Gap/ (Surplus) pertaining to the True up of FY 2017-18	112.05	112.05
Total revenue requirement for the FY 2021-22	1,772.12	957.77
Revenue at Existing Tariff	963.62	963.62
Particulars	As Claimed by Petitioner	As per Objector's Assessment
Revenue Gap/ (Surplus)	808.50	(5.85)

#### ALLOWABLE POWER PURCHASE COST FOR MEPDCL FOR THE PERIOD FY 2021-24

## MePDCL'S Reply

In accordance with the explanation submitted in the previous sections, MePDCL rejects the calculation of ARR by the Objector and submits before the Hon'ble Commission the ARR required by MePDCL as below:-

Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Power Purchase Cost	1183.26	1256.96	1316.68
Transmission Charges (PGCIL)	98.93	103.87	109.07
Transmission Charges (MePTCL)	156.43	195.91	209.62
Employee Expenses	226.80	240.43	254.67
Repair & Maintenance Expenses	6.51	6.83	7.17
Administration & General Expenses	32.50	33.26	34.05
Depreciation*	14.42	19.65	19.62
Interest and Finance Charges	205.47	197.59	182.19
Interest on Working Capital	38.39	41.91	44.78
Return on Equity	32.54	31.68	37.77
Bad & Doubtful Debt	3.75	3.75	3.75
Gross Annual Revenue Requirement(ARR)	1999.00	2131.84	2219.37
Less: Other Income**	73.22	74.71	76.25
Less: Sale of Surplus Power	266.35	232.17	212.18
Net ARR	1659.43	1824.96	1930.94

### ARR Requirement for Control Period 2021-24 (INR Cr)

In accordance with the explanation submitted in the Para 42 above, MePDCL therefore, submits before the Commission the Net ARR for FY 2021-22 after considering the pass on of Rs. 112. 05 Cr vide true up order for FY 2017-18 as below

#### Net ARR for FY 2021-22

SI No	Particulars	Amount (In Rs Cr)
1	Revised ARR of FY 2021-22	1,659.43
2	Additional Claim as per True Up FY 2017-18 Order	112.05

#### Total Revenue Requirement for FY 2021-22

1,771.48

#### **Commission's Views**

Commission considers the ARR after taking into consideration the statement of accounts for FY 2018-19 certified by the statutory auditors, un audited SOA for FY 2019-20, the additional information/data filed on 29<sup>th</sup> January 2021 and subsequent filings, the minutes of the public hearing and the minutes of the state advisory committee, the ARR for 3<sup>rd</sup> MYT control period FY 2021-22, FY 2022-23 and FY 2023-24 as per the MSERC MYT Regulations 2014.

#### K. TARIFF FOR FERRO ALLOY CONSUMERS

44. The Petitioner in its tariff petition has sought an increase in tariff for Ferro Alloys consumers as was determined by this Hon'ble Commission in its order dated 10.09.2018. The Petitioner is seeking an increase in tariff based on allegedly low load factor achieved by the ferro alloys consumers and attempting to bill the Ferro Alloys consumers at par with HT Industrial consumers. In its petition, MePDCL has proposed a tariff hike which translates to unsustainably high tariff for both HT and EHT Industrial, but especially for Ferro Alloys consumers in the following manner:

Tariff Categories	Existing Tariff	Tariff Hike proposed
Commercial (LT, HT), Water		
Supply		
(LT, HT), General Purpose (LT).	Higher than > + 20% of Average Tariff	15%
Industrial (HT), Domestic (HT)		
Kutir Jyoti, Agriculture	< (-) 20% of Average Tariff	25%
All Other Categories	Within ± 20% of Average Tariff	20%

TARIFF HIKE PROPOSED BY MEPDCL FOR THE FY 2021-22

45. However, though the proposed tariff hike for HT Industrial is 15%, is factually incorrect and misleading, as for Ferro Alloy consumers, the actual tariff hike proposed is around ~35% in Fixed Charges and ~70% in Energy Charge Rates, as shown in the table below:

Particulars	Existing tariff		Proposed Tariff		Hike in FC	Hike in ECR
	FC (Rs./KVA)	ECR (Rs.kVah)	FC (Rs./KVA)	ECR (Rs.kVah)	%	%
Ferro Alloy HT	200	4.46	265	7.60	33%	70%
Ferro Alloy EHT	200	4.36	275	7.45	38%	71%

### TARIFF HIKE PROPOSED FOR FERRO ALLOY CONSUMERS BY MEPDCL FOR THE FY 2021-22

46. At the outset, it is important to quote this Hon'ble Commission's order dated10.09.2018 wherein it was held as follows:

"15 (a) That a new tariff category, to be known as the HTSS (FerroAlloy) category may be included in the Tariff category prevailing at present, as specified in the Distribution Tariff Order dated 31st March 2018. This tariff will be applicable both in the EHT and HT levels. Table 6.2 indicating the Category wise Tariff approved for 2018-19 will stand amended as follows:"

- 47. It is submitted that for the FY 2019-20, the Ferro alloy consumers contributed to 379.14 Million units consumption of the total sales of 1,259.48 Million units (as per Audited Accounts Note 24.1) which contributes to staggering 30.10% of the total consumption within the state. It is also mentioned that the average Load factor for the Ferro alloy consumers is 71.17% within the state of Meghalaya. Thus, it is important to safeguard the interests of such category of consumers.
- 48. As mentioned above, MePDCL has a Revenue Surplus of Rs. 5.85 Crore. Therefore, any Tariff Hike across any of the consumer category is not required. Further,MePDCL has proposed the Tariff for Ferro Alloys consumers equivalent to the normal tariff for other industrial consumers, which is gross negligence of the previous orders of MSERC, thereby eliminating the significance of having a separate tariff category for Ferro Alloys Consumers approved by this Hon'ble Commission. Such tariff proposal defeats the very purpose for which the Hon'ble Commission had directed the Petitioner for creation of separate category for Ferro Alloy consumers. This Hon'ble Commission had created a separate category for Ferro alloy consumers was because of the peculiar characteristics of such industries. Therefore,

the present proposal of the Petitioner is contrary to the directions of this Hon'ble Commission.

- 49. This Hon'ble Commission may kindly consider that Ferro alloy industries are power intensive in nature, thereby majority of the production cost is on account of the cost of electricity consumed. Thus, any hike in Electricity Tariff would directly reflect into the increased production cost and would make the situation economically unviable for such industries. Such unsustainable Tariffs as proposed by the Petitioner would hit hard on ferro alloys consumers and will result into permanent closures of such industries. It would be critical to state that since 2009 to 2017, out of 26, around 22 ferro alloy establishments have closed down in the State of Meghalaya, on account of higher electricity tariff. Only after introduction of separate tariff structure for Ferro Alloys consumers by this Hon'ble Commission, more than two consumers have shifted from Open Access to State Discom, which is not only beneficial to MePDCL but also the state consumers in the form of cross subsidy. The comparatively competitive tariff being charged from 2018 onwards have also revived sick units like the two units RNB Carbide. Now again if Ferro Alloys tariff is increased, this would result in permanent closure of all units of Ferro Alloys being currently operational. Closures of industries, would not only result in wide spread unemployment but also it will be loss of economy to the State of Meghalaya and nation as a whole.
- 50. It is pertinent to mention that here the units in Meghalaya are engaged only in manufacturing of Ferro Silicon which is a very critical raw material for making any kind of steel and all PSU's like SAIL, RINL, Tata Steel, etc., are dependent on the raw material produced in Meghalaya, Arunachal in India and Bhutan. The closure of Ferro Alloys industries in Meghalaya would create crisis of Ferro silicon in the entire country. This would lead failure of the key missions launched by the Hon'ble Prime Minister of India like 'Atmanirbhar Bharat' and 'Make in India'.
- 51. It should also be noted that on one hand MePDCL has entered into an MOU with BIA, for consumption of power at rate of Rs. 4.90/kWh (including fixed charges), in order to promote industrial development in the State of Meghalaya and on the

other hand, they are proposing 70% increase in the tariff for Ferro Alloy Consumers, which would result in closure of industrial units in the State of Meghalaya. The current approved tariff for Ferro Alloy Consumers including demand charge, is near to the special tariff agreed for BIA consumers, which should be continued by this Hon'ble Commission for survival of Industries in Meghalaya.

- 52. It may also be brought to the notice of Hon'ble Commission that in Order to safeguard the interests of all sections of the Industries, efforts have been made by other State Commissions as well to categorize Ferro alloy as separate consumer category. For example, the Hon'ble Andhra Pradesh Electricity Regulatory Commission has continued a separate category for Ferro alloy consumers and has kept demand charges as NIL for such consumers.
- 53. It is submitted that the prevalent tariff for MePDCL, inclusive of demand charges, is already 72% higher s compared to tariff applicable in Arunachal Pradesh. Further, Tariff for Industrial Consumers (including Ferro Alloys) approved for FY 2018-19 and FY 2019-20 by Arunachal Pradesh Commission and proposed in MYT for FY 2020-21 to FY 2023-24 by Arunachal Pradesh Discom, is depicted in the table below. It should also be noted that the Demand charge approved by Arunachal Commission is Nil and the variable charge is also lower than the current variable charge approved by MSERC for Ferro alloys consumers in Meghalaya. Further, it can be seen that the State Discom of Arunachal Pradesh has also not proposed any tariff hike for Industrial Consumers (including Ferro Alloys), in the MYT for FY 2020-21 to FY 2023-24.

FY 2018-19 Particulars		018-19	FY 20:	19-20	MYT-FY 2020-21 to FY 2023-24 (Proposed by Discom)	
	FC (Rs./kW / month)	EC (Rs./kWh)	FC (Rs./kW/ month)	EC (Rs./ kWh)	FC (Rs./kW/m onth)	EC (Rs./kWh)
11 kV	0	3.85	0	3.85	0	3.85
33 kV	0	3.5	0	3.5	0	3.5
132 kV and above	0	3.35	0	3.35	0	3.35

- 53. Therefore, as compared to Industrial Tariff for Ferro Alloys in Arunachal Pradesh with Meghalaya, a Ferro consumer in Meghalaya has to pay Rs. 4.36/kVah (current tariff) and demand charge of Rs. 200/kVA, against Rs. 3.35/kWh (Rs. 2.85/kVah, at 85% Power Factor) and demand Charge Nil payable by a Ferro Consumer located in Arunachal Pradesh. Therefore, instead of tariff hike, the tariff for ferro alloys consumers should be reduced to make their produce competitive with other States.
- 54. Further, this Hon'ble Commission may consider thatthe load factor for many Ferro Alloys establishments remained more than 71% (excluding for RNB Carbide which met with a Fire incident and their one unit gutted) in FY 2019- 20, which therefore also enables the State Discoms in planning their load profile and optimizing power purchase cost. It is thus submitted before this Hon'ble Commission that for ensuring survival of Ferro Alloys consumers, the electricity tariffs should be kept unchanged atleast for a period of 3 years, in line with the agreement between BIA and MEPDCL wherein tariff have been kept constant for 3 years. This long- term sustainable security will boost the confidence of industrialists in the State of Meghalaya and would assure them to run their business viably in the State of Meghalaya, resulting in support to the Economy of the State. The interests of the Ferro Alloy consumers will be seriously jeopardized if the proposed tariff hike, i.e., 70% hike in energy charges and 30% hike in demand charges, is approved by this Hon'ble Commission.

## MePDCL's Reply

MePDCL has proposed the following tariff hikes for the ensuing year to help it achieve its target of tariff for all within  $\pm 20\%$  of the average cost of supply in the near future and also reduce the levels of cross subsidy gradually.

Tariff Categories	Existing Tariff	Tariff Hikes Proposed
Commercial (LT, HT), Water Supply (LT, HT), General Purpose (LT). Industrial (HT), Domestic (HT)	Higher than > + 20% of Average Tariff	15%
Kutir Jyoti, Agriculture	< (-) 20% of Average Tariff	25%
All Other Categories	Within ± 20% of Average Tariff	20%

## Tariff Hike Proposed for Consumer Categories for FY 2021-22

The above methodology excludes the Tariff approved under Special Tariff Order dated 19<sup>th</sup> October 2020 in Case No. 10 and also for Ferro alloys consumers.

The tariff hike for Ferro alloys consumers proposed is different from the above methodology in para 44, because while recommending the Tariff for Ferro alloys consumers, the Commission in its tariff order dated 10.09.2018, has prescribed as below:

"(f) The HTSS (Ferro alloy) consumers will make all efforts to ensure a load factor of at least 85%. Failure to do so may make it necessary for the Commission to specify a higher tariff for such defaulters."

The lower tariff approved by MSERC for Ferro alloy consumers in the abovementioned order is based on basic assumption that the ferro alloys are power intensive (continuous running) and will maintain load factor of atleast 85%. A load factor greater than 85% ensures that the surplus power to be sold in exchange will now be sold to ferro alloy industries at a greater tariff (compared to average exchange rate). Moreover, the industries have themselves acknowledged the fact that they are power intensive industries and have a load factor of 85% approx. (in Objections to MePDCL tariff petition FY 2018-19 dated 22 Jan 2018 and the licensee received the same via email from MSERC on 23 Jan 2018).

As the Load factor of Ferro alloys consumers is found to be well below the 85% mark, MePDCL in line with the above observation, has proposed to make the rates of Ferro alloys consumers same as those of industrial consumers, and therefore, increase of rates from the existing ones for Ferro alloys consumers is not as per principle laid down above. It may also be noted that the Commission has approved separate tariff for Ferro alloys consumers on the basis that they will increase the consumption from the then existing ones. However, after more than two years, the consumption pattern remains more or less same there by defeating the very meaning of providing such tariff.

The claim by Objector that MePDCL has a Revenue Surplus of Rs 5.85 Cr and therefore requires no Tariff hike, is premature and wrong as explained in earlier

paras. MePDCL reiterates that the tariff proposed for Ferro alloys consumers is same as that of the proposed tariff for IHT and IEHT as the case may be, as explained in Para 45 and therefore not contrary to the directions of this Commission.

Closure of industries is not directly related to the MePDCL. Many factors contribute to such closure if any, such as the Policy(ies) by the Government, performance of the industry etc,which are beyond the realm of MePDCL.

This is beyond the realm of MePDCL.

MePDCL rejects the claim of linking the Special tariff with the proposed tariff of Ferro alloys consumers as the tariff of Ferro alloys consumers are proposed as explained in Para 45 above.

MePDCL reiterates that the tariff of Ferro alloys consumers are proposed as explained in Para 45 above. Therefore MePDCL rejects a comparison with that of Andhra Pradesh Electricity Regulatory Commission.

MePDCL rejects the claim made by the Objector in comparing with those of Arunachal Pradesh as the set up and the system of providing support to the consumers are totally different. Arunachal Pradesh is still functioning under Government Department which is different to that in Meghalaya where MeECL and its subsidiaries including MePDCL is functioning as Corporations. In Arunachal Pradesh, any revenue shortfall is directly borne by the Govt. of Arunachal Pradesh.

The objector tries to shift the goalpost in requesting the Hon'ble Commission to consider fixing the Load factor to 71% instead of 85%. As already explained in the Para 45 above, MePDCL rejects the revision of Load factor to 71%. MePDCL also rejects the request of Objector to keep the rate unchanged for at least a period of 3 years. Keeping the rate unchanged and load factor at 71% will severely impact the tariff of other categories. It is illogicalfor the LT consumers specially, the subsidized categories to be given a tariff hike and the ones which are supposed to provide subsidy are not given a tariff hike. Keeping the rate unchanged for at least a period of 3 years will devalue and lessen the importance of filing the petition for yearly tariff and true up. Further, it is also in contravention of Tariff Policy 2016 where it

has clearly prescribed that the rates should be within  $\pm$  20% of the average cost of supply. Section 8.3 of the Tariff Policy 2016 provides:

*"8.3 Tariff design: Linkage of tariffs to cost of service* 

Accordingly, the following principles would be adopted:

- 1. Consumers below poverty line who consume below a specified level, as prescribed in the National Electricity Policy may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply.
- 2. For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the Appropriate Commission would notify a roadmap such that tariffs are brought within ±20% of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy."

Section 103 of the MSERC Multi Year Tariff Regulations 2014 envisages:

- "103 Cross-Subsidy
- 103.1 "Cross-subsidy for a consumer category" in the first phase (as defined below) means the difference between the average tariff from that category and the combined average cost of supply per unit. In the second phase (as defined below) means the difference between the average tariff from that category and the combined per unit cost of supply for that category.
- 103.2 The Commission shall determine the tariff to progressively reflect the cost of supply of electricity and also reduce cross subsidies within a reasonable period. To this purpose, in the first phase the Commission shall determine tariff so that it progressively reflects combined average unit cost of supply in accordance with National Tariff Policy. In the second phase, the Commission shall consider moving towards the category-wise unit cost of supply as a basis for determination of tariff."

It may be noted here that as of now the first phase as prescribed in section 103 above has not been achieved. Therefore, it is clearly required that this phase is to be met first.

It may be stated that power sector plays a major role in boosting the State's economy. However, MePDCL cannot be blamed for any failure on economy as it has to ensure commercial viability and function within the frameworks of the I.E. ACT 2003, National Electricity Policy, Tariff Policy 2016 etc and other directions / compliances from Central Government and State Government.

Section 65 of IE Act 2003 states:

"Section 65. (Provision of subsidy by State Government):

If the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the State Commission under section 62, the State Government shall, notwithstanding any direction which may be given under section 108, pay, in advance and in such manner as may be specified, the amount to compensate the person affected by the grant of subsidy in the manner the State Commission may direct, as a condition for the licence or any other person concerned to implement the subsidy provided for by the State Government:

Provided that no such direction of the State Government shall be operative if the payment is not made in accordance with the provisions contained in this section and the tariff fixed by State Commission shall be applicable from the date of issue of orders by the Commission in this regard."

### The Tariff Policy 2016 envisages

"Making the distribution segment of the industry efficient and solvent is the key to success of power sector reforms and provision of services of specified standards."

Further, the Tariff Policy 2016 envisages

"8.2 Framework for revenue requirements and costs

8.2.1 The following aspects would need to be considered in determining tariffs:

(3) Section 65 of the Act provides that no direction of the State Government regarding grant of subsidy to consumers in the tariff determined by the State Commission shall be operative if the payment on account of subsidy as decided by the State Commission is not made to the utilities and the tariff fixed by the State Commission shall be applicable from the date of issue of orders by the Commission in this regard. The State Commissions should ensure compliance of this provision of law to ensure financial viability of the utilities. To ensure implementation of the provision of the law, the State Commission should determine the tariff initially, without considering the subsidy commitment by the State Government and subsidised tariff shall be arrived at thereafter considering the subsidy by the State Government for the respective categories of consumers."

Section 25 and Section 104 of The MSERC Multi Year Tariff Regulations 2014 envisages:

- 25 Subsidy Mechanism.
- "25.1 With effect from the first day of April 2015, if the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the Commission, the State Government shall, notwithstanding any direction which may be given under Section 108 of the Act, pay in advance the amount to compensate the Distribution Licensee/person affected by the grant of subsidy, as a condition for the Licensee or any other person concerned to implement the subsidy provided for by the State Government, in the manner specified in these Regulations:

Provided that no such direction of the State Government shall be operative if the payment is not made in accordance with the provisions contained in these Regulations and the tariff fixed by the Commission shall be applicable from the date of issue of orders by the Commission in this regard."

*"104 Provision of Subsidy* 

104.1 If the State Government decides to grant any subsidy to any consumer or class of consumers in the tariff determined by the Commission under Section 62 of the Act, the State Government shall, notwithstanding any direction which may be given under Section 108 of the Act, pay in advance and in such manner as may be specified by the Commission, to the party affected by grant of subsidy, such amount as to fully compensate the loss in revenue due to grant of such subsidy. Provided that no such direction of the State Government shall be operative, if the subsidy payment is not made in accordance with the provisions contained in this regulation and the tariff fixed by the Commission shall be applicable from the date of issue of orders by the Commission in this regard."

From the above it is understood that if the State Government feels that certain categories and/ or consumers need to be given lower tariff, it will have to provide subsidy in advance. Therefore, boosting of economy by providing preferential treatment beyond permissible limits is not the solution.

## **Commission's Views**

Commission noted the suggestion and Response of the Licensee.

## L. LOAD FACTOR REBATE

55. The Objector also seeks to make a humble suggestion for the larger benefit of the industries and the power sector in the State. It is submitted that as part of Tariff Rationalization procedure, many State Distribution Licensees have adopted Load factor rebate mechanism. This would have an impact on economic recovery, which is vital for Socio economic development of the state. 56. The existing average load factor for all the Ferro Alloys establishments in the State has been around 70% from 1.04.2019 till date (including the COVID-19 period, force majeure / un-avoidable circumstances), which therefore enabled the MePDCL in planning their load profile and optimizing power purchase cost. The calculation of average load factor is hereby attached as Annexure B.

56. Many other Distribution Licensees have already put up such mechanism to incentivize additional energy consumption at improved marginal cost. The Hon'ble JSERC while passing the Order on True-up for FY 2018-19, Annual Performance Review for FY 2019-20 and ARR & Tariff for FY 2020-21 for Damodar Valley Corporation (DVC) by order dated 30.09.2020 has allowed Load factor rebate as shown in the extracts below:

"The Load factor rebate shall be allowed to all the consumers whose load factor exceeds 65%. For any "X" % increase in the load factor over and above 65%, the rebate shall be allowed at the rate of "X" % on the total energy charges corresponding to energy consumption of the consumer subject to a maximum ceiling rebate of 15%."

57. Similarly, in the state of Andhra Pradesh, following Load factor incentive- based provision for Industrial consumers has been approved by the Hon'ble APERC's order dated 10.02.2020 in the matter of Tariff for Retail Sale of Electricity during FY2020-21:

## 4.3.1.1 LOAD FACTOR INCENTIVE

### This incentive is applicable only to Category III (A) Industry (General)-HT as below

S.No	Load Factor	Connection in Energy Charges (Paise/unit)
1	More than 50% and upto 60%	10
2	More than 60% and upto 70%	20
3	More than 70% and upto 80%	30
4	More than 80% and upto 85%	40
5	More than 85%	50

Load Factor Incentive (TELESCOPIC)

58. Such Tariff Rationalization measures by the Distribution Licensees would greatly assist them to lower down their Average power purchase cost and would also render lower Tariffs to the consumers of the state. This Commission is requested to kindly take the note of this structure and approve such mechanism in Meghalaya, to encourage more consumption for power intensive consumers.

- 59. As per the current submissions of the Petitioner, the excess power has been projected to be sold by MePDCL at Rs. 2.20/unit. Instead, if a load factor rebate is allowed to industrial consumers like in Jharkhand and Andhra Pradesh, it will help MePDCL in flattening their demand curve with increase in industrial consumption during off-peak hours. Balanced demand curve would also reduce the burden of Stranded Capacity charges on Discom. This would haveatwo-fold advantage viz. the manufacturing paradigm of the state would get encouragement on account of lower Tariff and the Distribution Licensees would be able to realize additional revenue, with increased demand of industrial consumers, where collection efficiency is 100%.
- 60. In a MOU entered between BIA and MEPDCL in 2020 for supply of power from NTPC Bongaigaon as approved by this Commission on 19.10.2020, the minimum load factor has been kept at 68%, failing which additional per unit penalty will be imposed on the consumers. Accordingly, for other industrial consumers, Load factor rebate can be allowed above 73%, which is 5% higher than the Load factor agreed by MEPDCL for BIA consumers. It is therefore requested that following Load Factor rebate should be approved by this Hon'ble Commission for FY 2021-22:

Load Factor	Concession in Electricity Charges (paise/kWh)
More than 73% and upto 80%	30
More than 80% and upto 85%	40
More than 85% and upto 90%	50
More than 90%	55

# MePDCL's Reply

The Objector proposed that there should be Load Factor Rebate in order to incentivize additional energy consumption. MePDCL, though considers it a good proposal, cannot entertain it at this stage. Section 103 of the MSERC Multi Year Tariff Regulations 2014 envisages:

"103 Cross-Subsidy

- 103.1 "Cross-subsidy for a consumer category" in the first phase (as defined below) means the difference between the average tariff from that category and the combined average cost of supply per unit. In the second phase (as defined below) means the difference between the average tariff from that category and the combined per unit cost of supply for that category.
- 103.2 The Commission shall determine the tariff to progressively reflect the cost of supply of electricity and also reduce cross subsidies within a reasonable period. To this purpose, in the first phase the Commission shall determine tariff so that it progressively reflects combined average unit cost of supply in accordance with National Tariff Policy. In the second phase, the Commission shall consider moving towards the category-wise unit cost of supply as a basis for determination of tariff."

The tariff proposed by MePDCL for FY 2021-22 has not reached the first phase of the level of cross-subsidy as mentioned in section 103 of the MSERC Multi Year Tariff Regulations 2014. It is because of this that Load factor rebate at this stage is not considered.

## **Commission's views**

Commission noted the suggestion and Response of the Licensee.

## M. TIME OF DAY TARIFF

61. The Petitioner has proposed no change in the ToD Tariff structure for the HT Industrial and EHT Industrial category of consumers as shown below:

Time Slot	HT Industrial	EHT Industrial
0600 hrs to 1700 hrs (normal)	As Approved	As Approved
1700-2300 hrs (peak)	+20% of Normal	+20% of Normal
2300-0600 hrs (night off-peak)	-15% of Normal	-15% of Normal

TIME OF DAY (TOD) TARIFF STRUCTURE PROPOSED BY MEPDCL FOR THE FY 2021-22

62. However, the Objector is praying that this Hon'ble Commission may kindly increase the duration of night off-peak period. The Petitioner submits that since the night off

peak duration usually lasts much longer than the evening peak duration, it is requested to this Hon'ble Commission to kindly increase the duration of the off-peak hours from 2300-0600 to 2200-0600 hours, considering that Meghalaya is a hill state, without any metro, general day life is till 2100 hours only, thereby next working shifts can start from 2200 hours.

- 63. It is also submitted that the Petitioner in its Tariff Petition for FY 2021-22 has proposed to sell excess power in off-peak hours at Rs. 2.20/kWh, which is way below the tariffs offered to industrial consumers in such off-peak hours. We therefore request the Hon'ble Commission to increase the TOD rebate to 20% for off-peak hours, which would boost the energy consumption for industrial consumers and the increased consumption would result in better revenue for discoms, against current revenue realization rate ofRs. 2.20/kWh only by selling excess power on exchange.
- 64. It is pertinent to note that for FY 2018-19, rebate in off peak-period was approved at 20%, which was reduced to 15% in the subsequent Tariff Orders. The Respondent sincerely submits that the off-peak rebate should be continued at 20%. Further, it is also submitted that industries usually run in 8 hour shifts for night hours, as such, aligning the ToD slab for off-peak period with the 8-hour shift would help industries in reducing the cost of their production and competitively selling their product in the open market in other States.

Accordingly, the Objector prays that this Hon'ble Commission may approve the ToD Tariff as per the table below:

Time Slot	HT Industrial	EHT Industrial
0600 hrs to 1700 hrs (normal)	As Approved	As Approved
1700-2200 hrs (peak)	+20% of Normal	+20% of Normal
2200-0600 hrs (night off-peak)	-20% of Normal	-20% of Normal

## MePDCL's Reply

The Objector has requested to revise the period of Off-Peak Hours during the night from 2300 - 0600 to 2200 - 0600 hours, thereby reducing the Peak hours by 1 hour that is from 1700 - 2300 to 1700 - 2200 hours. MePDCL rejects this claim as this

peak &off peak hours is based on all India basis. Meghalaya is connected to the Grid of the Country, and as such it cannot have its separate time block for Peak and Off Peak hours.

The Objector has proposed to increase the TOD rebate to 20% for off-peak hours from 15% by linking that the excess power proposed to be sold at Rs 2.20/kWh could be consumed by the industries. This linkage is not acceptable as the selling of power is not with respect to the specific time period but as and when the situation arise. That is the selling of excess power is based on circumstances and therefore not predetermined. Moreover, the selling of excess power generally happens during the monsoon period and not throughout the year.

The TOD is proposed on yearly basis which includes the lean period and the monsoon period. Increasing the rebate to 20% will severely not only hamper the availability of power but also increase the cost of power during lean season. Therefore, MePDCL sticks to the TOD proposed in the petition.

### **Commission's Views**

Commission will take decision at appropriate time.

## N. CROSS SUBSIDY SURCHARGES AND WHEELING CHARGES

65. In the present petition, the Petitioner has not provided any basis for the computation of Cross Subsidy Surcharge for FY 2021-22 and has merely claimed an increase of 20% on CSS based on tariff hike proposed for FY 2021- 22:

Particulars	Existing (INR/kWh)	Proposed (INR/kWh)
Cross Subsidy Surcharge for HT consumers	1.85	2.22
Cross Subsidy Surcharge for EHT consumers	1.60	1.92

66. The Objector reiterates its submissions that as per the aforesaid submissionsMePDCL has revenue surplus for FY 2021-22 which works out to be Rs. 5.85 Crore as against the incorrect revenue gapclaimed by MePDCLfor Rs. 808.50 Crore. Therefore, there is no requirement for tariff hike for MePDCL. Accordingly, since no tariff hike is

allowable to MePDCL, the hike proposed for Cross-subsidy surcharge ought to be rejected.Further, this Hon'ble Commission may kindly take cognizance that the existing levels of Cross Subsidy Surcharge is too high for the consumers of Meghalaya to afford.Therefore, any further increase in CSS would be ruinous to the industry resulting in closure of units, thus resulting in mass unemployment in the state.

67. This Hon'ble Commission may also note that the Hon'ble JSERC in its order dated 30.09.2020 has approved zero CSS for the consumers:

"The Commission observes that the CSS calculated for FY 2020-21 based on

the formula discussed above is "zero" for DVC. Hence the Commission approves no cross-subsidy surcharge for DVC consumers for FY 2020-21."

68. Even in Haryana, the Cross subsidy for Haryana consumers is also under Rs.1 level as illustrated below:

# <u>Cross Subsidy Surcharge and Additional Surcharge for Distribution Open Access</u> <u>Consumers applicable for FY 2019-20</u>

SI.No	particlars	Cross Subsidy Surcharge (Rs./Kwh)	
1	HT Industry	0.78	
2	Bulk Supply (Other than DS)	0.57	
3	Railways (Traction) DMRC	0.43	
4	LT Industry	0.46	
5	NDS (HT)	0.90	

# Cross subsidy Surcharge w.e.f 1<sup>st</sup> May,2019

Additional Surcharge on the energy drawn by open access consumers through open access is @ 0.44/kwh with effect from May 1, 2019 shall continue till the Commission determine additional surcharge

69. Thus, as illustrated above, the existing Cross Subsidy Surcharge for the state of Meghalaya is very high compared to the other CSS applicable in other states. The

CSS in Meghalaya is touching Rs. 2/ kWh. This disparity in the rates would dishearten/ disincentive the consumers who wish to seek supply under Open Access mechanism, thereby defying the philosophy of the Electricity Act 2003. In effect, such high CSS will disable open access which is contrary to the provisions of the Electricity Act, 2003 and established law.

70. Further, as per the provisions of the Tariff Policy, 2016, the CSS for any section of the consumers should not be higher than 20% of the average billing rate approved for that consumers. The National Electricity Policy provides that under Clause 5.8.3 that the amount of surcharge and additional surcharge levied from consumers who are permitted open access should not become so onerous that it eliminates competition. This Hon'ble Commission may also take note of Section 42 (2) which mandates that the CSS is to be progressively reduced by this Hon'ble Commission. Therefore, any increase in CSS is contrary to the provisions of the Act and the statutory policies issued thereunder. 71. It would also be imperative to highlight that in the current petition, the Petitioner has not provided the voltage wise Average Cost of Supply, failing which the Cross Subsidy surcharge should be reexamined and reduced by this Hon'ble Commission. Though the Objector has been repeatedly requesting that in line with the judgments of the Appellate Tribunal for Electricity, directions be issued to MePDCL for determining voltage wise ACoS, no directions have been taken regarding the same. In view of the above, BIA submits before the Hon'ble Commission to reduce the current levels of CSS below Rs. 1.00 per unit, on the basis of various justifications quoted.

# MePDCL's Reply

As already explained earlier, MePDCL rejects the claim by BIA that there is excess revenue of Rs 5.85 Crores. MePDCL sticks to the method that cross subsidy charges be calculated after arriving the ARR and subsequent fixing of tariff for different categories.

The Objector has quoted the Order selectively, without clearly mentioning what are the points of discussion on the formula. From the quoted sentence it can be inferred that formula approved by JSERC may be different from the one here and / or there are other points that contribute to such calculations. Firstly, as per Annexure 3 enclosed by the Objector, there is no mention of such extract. Secondly, it appears from the Annexure that the rates for Cross Subsidy Surcharge are not zero. Thirdly, it appears that there is also additional surcharge. The Objector should provide the copy of the Order in its entirety so that it can be perused. MePDCL therefore rejects such selective quote by the Objector.

The Objector has given example of Haryana consumers to substantiate that the cross subsidy surcharge that the rates are low. Firstly, no Order is enclosed for perusal. Secondly, it appears that over and above the Cross subsidy surcharge, the consumers have to also pay additional surcharge. Thirdly, Cross subsidy surcharge rates cannot be compared as the rates are derived from the prescribed norms. MePDCL rejects the comparison made by the Objector.

The claim by Objector that the rates for Cross subsidy surcharge will dishearten/ disincentive the consumers and thereby defying the philosophy of the Electricity Act 2003 is wrong and erroneous. The rates for Cross subsidy surcharge are derived based on the methodology prescribed by the Tariff Policy 2016 and therefore within the philosophy of the Electricity Act 2003. MePDCL reiterates that the Cross Subsidy Surcharge rates are proposed as per laid down norms of Tariff Policy, 2016.

The Objector has not clearly mentioned where the proposal is wrong or whether the method adopted for calculation is wrong. MePDCL reiterates that the Cross Subsidy Surcharge rates are proposed as per laid down norms of Tariff Policy, 2016.

MePDCL in response to the earlier directive of Hon'ble Commission has submitted the Report on Voltage Wise Cost of Supply vide MeECL/SE (RA)/71C/Pt-II/2017-18/72 Dated 9th January 2018. MePDCL has performed an extensive energy audit study in Byrnihat area through a third-party agency. Based on the detailed study and estimations, the Utility has submitted the report on voltage wise cost of supply for different voltage levels with the Hon'ble Commission. The methodology used by MePDCL in carrying out this study is as per methodology of BERC in its order for SBPDCL dated 16 March 2015 (Chapter 8 of the order) as well as APTEL order dated 10.05.2012. There has been no further directive from the Hon'ble Commission on the issue of Voltage wise cost of Supply. Cross Subsidy Surcharge is the difference between the average tariff from that category and combined average voltage wise cost of supply, with no role of voltage wise cost of supply and would like to reaffirm our claim on cross subsidy charges as claimed in the tariff petition which is in line with MSERC Regulations as well as the methodology adopted by Commission in its past orders.

#### **Commission's Views**

Commission noted the suggestion and the Response of the Licensee.

# O. TIMELY PAYMENT REBATE

71. It is submitted that the state of Meghalaya has no provision for Rebate on Timely payment. While many other Distribution Licensees have initiated the concept of Rebate on timely payment (and rebate on online payment) to incentivize the consumers and improve their collection efficiency which will improve the working capital / cash flow of the Licensee. This would also reduce the additional interest on working capital incurred by Licensee. In this regard, it is submitted that the regulatory commissions of Jharkhand, Maharashtra and Uttar Pradesh also allow for rebate for timely payment and additional rebate for online payment. Accordingly, this Hon'ble Commission may also introduce such rebate to encourage payment discipline which will benefit both MePDCL and the consumers of the state.

# MePDCL's Reply

Due to its financial problem, MePDCL always has difficulty in servicing the power purchase costs in time. However, MePDCL is being punished by the Hon'ble Commission by deducting 1% rebate from the actual cost of power purchase. Considering the power purchase cost of Rs 100.00, the Hon'ble commission allows MePDCL to recover from the consumers only Rs. 99.00. If rebate is given to the consumer at 1% as applicable to power purchase cost and if consumers pay within time, then revenue collected will be Rs. 98.01. Clearly there is a shortfall of Rs 100.00 – 98.01 = Rs. 1.99. With the present scenario, MePDCL will find it difficult to get loan

to service this shortfall. MePDCL therefore submits before the Hon'ble Commission not to provide such rebate system.

#### **Commission's Views**

Commission noted the suggestion and the Response of the Licensee.

#### P. POWER FACTOR REBATE

72. It is submitted that MEPDCL may be directed to offer rebate for maintaining high power factor, which ensures better load flow for the Discoms as well. Though MePDCL is already enjoying kVAH billing, however, the consumers are not getting any incentive for maintaining high power factor. Since maintaining Grid power factor is critical to stability of National grid, many Distribution Licensees across India are already giving Power factor rebate in order to improve grid stability without incurring any extra costs for reactive power compensation-based equipment and reducing the maintenance cost for power equipment's, even if there is a kVAh billing. The Objector requests that this Hon'ble Commission may kindly direct MePDCL to provide power factor rebate to consumers. In this regard, reference may be made to Hon'ble BERC's order dated 20.03.2020 wherein they have implemented power factor rebate as follows:

# **Power Factor Rebate**

(i) For each increase of 0.01 in power	0.5 (half) percent on demand and energy
factor above 0.90 upto 0.95	charge (Actual Recorded)
(ii) For each increase of 0.01 in power	1.0 (one) percent on demand and energy
factor above 0.95	charge (Actual Recorded)

# MePDCL's Reply

Kwh based billing is associated with PF incentive /penalty mechanism. Considering that the kVAh based billing has an inbuilt incentive /penalty mechanism and separate mechanism for the same is no more required; therefore, claim of Power factor rebate does not arise anymore.

# **Commission's Views**

Commission noted the suggestion and Response of the Licensee.

The List of Participants in the Public hearing on petition filed by MePDCL for ARR and Retail Tariff held on 18.03.2021 is attached as Annexure II.

# 4. Approach of the Commission

# 4.1 Tariff Determination

Under Section 61 of Electricity Act 2003, the Commission has to specify terms and conditions for determination of tariff and in doing so it shall be guided by the following:

- The principles and methodology specified by CERC for determination of Generation, Transmission and Distribution tariff.
- Business of generation, transmission and distribution are to be conducted on commercial principles.
- The factors which encourage development, competition efficiency, good performance and optimum investments.
- Safeguarding consumers interest and at the same time recovery of the cost of electricity in a reasonable manner.
- Principles regarding efficiency in the performance.
- Multiyear tariff principles based on efficiency target.
- Tariff should reflect cost of supply progressively.
- Promotion of generation from renewable energy.
- National Electricity Policy and Tariff policy.

National Electricity Policy prescribes that there is a need for ensuring recovery of charges from consumers to make the power sector sustainable. A minimum level of support may be required to make the electricity affordable for consumers of the very poor section. Consumers below poverty line may receive a special support in terms of tariff which is cross subsidized. It also says that existing cross subsidies should also be corrected to tide inefficiencies and losses. The Act requires all consumers to be metered within two years' time and TOD meters for high end consumers with a minimum load of 1 MVA shall also be encouraged.

Regarding transmission and distribution losses, the policy prescribed that State Government would prepare a 5 year plan with annual milestone to bring down T & D losses expeditiously. Continuation of present level of losses would not only pose a threat to the power sector but also jeopardise the growth of the economy as a whole. Similarly electricity policy envisages encouragement of energy conservation and demand side management. Periodic energy audits are mandated for power intensive industries and encouragement of solar water heating system.

Keeping in view the intent of Electricity act, National Electricity Policy and National Tariff Policy, the Commission has framed MSERC (Multi Year Tariff) Regulations, 2014 for generation, transmission and distribution business.

# 4.2 Application for Determination of Tariff

The distribution licensee shall file application for determination of tariff in accordance with the procedure laid down by the Commission. Accordingly the Licensee has filed petition on 04.12.2020 and the Commission has admitted the petition provisionally on 07.12.2020.

#### 4.3 Estimation of Energy Sales

Regulation prescribes that the licensee shall adopt a suitable methodology like CAGR in estimation of the category wise sales for the base year and ensuing year. The Commission accepted the approach used by the licensee wherever appropriate with corrections as per present trend. The estimation of sales as approved for Business plan for the 3<sup>rd</sup> MYT Control period FY 2021-22 to FY 2023-24 is considered in this Tariff order.

#### 4.4 Distribution losses

The licensee shall furnish information on distribution losses for previous year and current year and the basis on which such losses have been worked out. The Commission has already framed a trajectory for reduction of losses for next year. The Trajectory of Distribution losses are considered for FY 2020-21 (current year) and for the control period FY 2021-22 to FY 2023-24 as projected in the Business plan as detailed below.

Distribution Loss	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
	12.00%	12.00%	12.00%	12.00%

# 4.5 Estimation of Energy requirement

Based on the estimated energy sales and the proposed distribution losses the Commission may determine the quantum of energy required to meet the estimated sales and accord its approval. The Commission may approve the power purchase requirement with a modification as it deems fit for the ensuing years of the control period FY 2021-22 to FY 2023-24 in the tariff order for FY 2021-22. The Commission in accordance with Regulations has allowed power purchase from the sources available/allotted to Meghalaya State. MePGCL energy drawl as approved for ARR from Lakroh & Ganol projects have been considered for procurement pending the approval of final tariff for Lakroh and Ganol Hydro Projects.

#### 4.6 Power Purchase cost

Commission considers the Power Purchase Cost projected in the MYT Petition to be on higher side. The Licensee has filed Power Purchase data for FY 2021-22 in order to assess correct estimates for FY 2021-22 to FY 2023-24. Commission estimated the requirement for the control period FY 2021-22 to FY 2023-24.

The licensee shall procure power from approved sources. Additional energy required after taking into account the availability of the energy from such approved sources shall be reasonably estimated and procurement arrangement made for long and medium term purchase by following standard contractual procedures. All such purchases shall only be made with the prior approval of the Commission and in accordance with Commission's Regulation on power purchase. In case of short term power purchase is necessary on unprecedented development; the licensee shall do so in accordance with Commission's Regulation for power purchase. The cost of power purchase from central generating stations shall be based on tariff determined by CERC. The Power Purchase cost from state owned existing generating stations shall be based on prices as determined by the MSERC. The Commission has in accordance with the Regulations allowed CERC rates for central generating stations. Commission has prescribed RPO requirement from renewable sources of energy in accordance with the Commission's Regulations.

It is noted that the licensee has projected to procure 39.42 MU from solar generating sources to meet non-solar RPO. The energy is being drawn from small hydro projects of MePGCL and NEEPCO having installed capacity up to 25 MW amounted to 109.86 MU during FY 2021-22 as approved for business plan. Thus the obligation of purchase of renewable energy is accounted a shortfall of 169.59 MU by the licensee.

# 4.7 Transmission and wheeling charges

Transmission, wheeling charges has been considered as expenses and included in the power purchase cost. The Commission has allowed transmission charges for intrastate operation as per Commission's order for MePTCL for FY2021-22 and for others at the rate approved by the Commission.

# 4.8 Quantum of Renewable Purchase Obligation (RPO)

Every obligated entity shall purchase a minimum percentage of its total electricity consumption (in kWh) from renewable energy sources under the renewable purchase obligation during each financial year as specified by the Commission herein.

Commission has notified RPO obligation on 22<sup>nd</sup> October 2018 according to which the minimum percentage was specified as follow; subject to provision indicated in the relevant Regulations of the Commission.

YEAR	Minimum quantum of purchase (%)from renewable energy sources (kWh)			
	SOLAR	NON-SOLAR	TOTAL	
2018-19	0.75	3.25	4.00	
2019-20	1.00	4.00	5.00	
2020-21	1.25	4.75	6.00	

Licensee has projected purchase of solar energy at 39.42 MU during the MYT control period.

Commission considers that the licensee has been drawing power from small Hydro Electric Projects of MePGCL and NEEPCO with an installed capacity of up to 25MW to the extent of 109.86 MU during FY 2021-22 which is sufficient to meet the RPO requirement as detailed below

Approved Sales for FY 2021-22 is 1470.79 MU and requirement to procure from Renewable energy sources amounted to 88.25 MU.

# Details of Renewable Energy Purchase during FY 2021-22

Umiam Stage II (20 MW)	45.51 MU
Sonapani (1.5 MW)	5.50 MU
Lakroh (1.5 MW)	11.01 MU
KOPILI-EXT (25 MW)	8.48 MU
Solar	39.42 MU
Total Purchase	109.86 MU

#### 4.9 Annual Revenue Requirement

The Annual expenses of distribution licensee shall comprise of the following:

- (i) Power purchase cost including PGCIL and Intra State Transmission charges
- (ii) Return on Equity
- (iii) Interest on Loan capital
- (iv) O&M expenses including R&M expenses & Adm & General Expenses
- (v) Interest on working capital
- (vi) Income Tax
- (vii) Depreciation as may be Computed
- (viii) Provision for bad and doubtful debts.

The net annual revenue requirement shall be made after deducting the following

- (1) Non-Tariff Income and Other Income
- (2) Sale of Surplus Power
- (3) Subsidy from State Government if any

#### 4.10 Amount of Non-Tariff Income

The Non-Tariff income shall include the following components:-

- (i) Income through surcharge from open access consumers.
- (ii) Wheeling charges recovered from open access consumers.
- (iii) Any grant received other than tariff subsidy.
- (iv) Bank Interest from Deposits
- (v) Delay Payment Surcharge
- (vi) Meter Rent
- (vii) Interest income from staff loans

#### 4.11 Capital cost

The capital cost includes the actual capital expenditure till the date of commercial operation subject to prudence check by the Commission. Scrutiny of the cost shall be limited to reasonableness of the capital cost, financial plan, interest during construction as considered by the Commission. Any abnormal delay causing cost and time overrun attributable to the failure of utility, the Commission may not approve the full capitalization of interest and overhead expenses. In the absence of Audited Accounts for FY 2019-20, Commission has provisionally accepted the licensee's proposal and the same shall be validated after audited accounts are made available.

# 4.12 Debt Equity Ratio

For the purpose of determination of tariff, the debt equity ratio of 70:30 will be applied for all new investments. Where equity employed is more than 30% the amount of equity for the purpose of the tariff shall be limited to 30% and where equity is less than 30% the actual equity shall be considered.

# 4.13 Return on Equity

Return on equity shall be computed on the equity base determined as per Regulation 27 at a fixed rate of 14% per annum. The equity amount appearing in the audited balance sheet or as per transfer scheme will be taken into account for the purpose of calculating ROE. In the absence of audited accounts the Commission is unable to accept return on equity as projected for FY 2021-22 and the Commission has allowed return on equity as per Regulations 2014.

# 4.14 Interest on loan capital

Interest on loan capital shall be computed on the outstanding loan at the prevailing lending rate. However, it should not exceed the loan ceilings as defined in the Regulation 32 read with Regulation 27. The interest attributable to capital work in progress shall not be allowed.

# 4.15 Operation and Maintenance expenditure

Operation and maintenance expenses shall include the following:

- Employees cost
- Repairs and maintenance
- Administration and General Expenses

The distribution licensee shall submit to the Commission actual expenses of last year O&M expenses under each head with the estimates for the current year and projection for the ensuing years of the control period. In the absence of any norms the Commission shall determine O & M expenses based on prudence check. The Commission has allowed expenses based on the information provided after considering escalation. Segregation of expenses of holding company among its subsidiaries however lies with the management which should be done as per standard practice.

Commission has considered the O&M Expenses reported through Statement of

Accounts for FY 2018-19 certified by the Statutory Auditors, provisional statement of accounts for FY 2019-20, Revision of pay w.e.f. 1.1.2020, inflation rates notified by the Govt. of India provisionally for computation of ARR for the control period FY 2021-22 to FY 2023-24.

# 4.16 Interest on working capital

The working capital for supply of electricity shall consist of:

- Operation and maintenance expenses for one month
- Budget for maintenance of spares at 1% annually escalated at 6% on historical cost of GFA.
- Receivables equivalent to two months of expected revenue at the prevailing tariffs Interest on working capital shall be equal to SBAR as on 1st April of financial year in which petition is filed.

# 4.17 Depreciation

The depreciation shall be computed on the cost of fixed assets as approved by the Commission on the opening asset values recorded in the Balance Sheet or as per transfer scheme notification. For new assets the depreciation shall be allowed on the date of commercial operation. Consumer contribution or grant/subsidy shall be excluded from the asset value for purpose of depreciation. Depreciation shall be calculated as per CERC norms. Depreciation shall be chargeable from the 1st year of commercial operation. The grants and consumer's contribution, however, shall be deducted from the Depreciation to be allowed for Determination of Tariff.

# 4.18 Bad and Doubtful Debt

The Commission may after the distribution licensee gets the receivable audited allow a provision for bad debts not exceeding an amount equal to 1% receivable in the revenue requirement.

# 4.19 Forecast of Revenue

The revenue of the distribution licensee shall be calculated from the sale of power to each category of consumer, non-tariff income and income from other sources. The non-tariff income shall consist of delay payment surcharge, meter rent, income from investment, etc. Commission has allowed non-tariff income based on the previous year actual.

# 4.20 Revenue gap

For the tariff year, the difference between the net annual revenue requirement and expected revenue at the current tariff shall be the revenue gap. This gap shall be bridged by improvement in internal efficiency, utilization of reserves and tariff charges as approved by the Commission.

# 4.21 Tariff Design

Tariffs should be designed in two parts comprising fixed charges and energy charges. Tariffs shall be applicable to consumer categories and as per slab as determined by the Commission. The Commission may rationalize the tariff structure so that it is beneficial to consumers and the licensee. A differential tariff for peak and off peak may be designed to promote demand side management. The licensee has requested the Commission to approve Time of Day (TOD) tariff proposed in addition to the base tariff applicable for HT and EHT Industrial consumers. The Commission has considered TOD Tariff for FY 2021-22 for HT and EHT Industrial consumers as sought for by the petitioner.

# 4.22 Validation of ARR

Regulation prescribes that current year expenses should be based on 1st half year actual and 2nd half year, estimates escalated on the basis of Inflation so as to validate the details of expenses and revenue in the ARR for ensuing years.

The Commission while determining the tariff for FY 2021-22 has followed Regulations keeping in view of the ground realities of the State. The Commission has tried to ensure a balance between the interests of the consumers and the viability of Business of the licensee.

# 4.23 Truing up

The Licensee has yet to file petition for True up of the business from FY 2018-19 to FY 2020-21 for determination of ARR for the 3<sup>rd</sup> MYT control period FY 2021-22-FY 2023-24.

- a) As per the Regulation11 (2) of MSERC Regulations 2014, the Licensee shall file petition for true up of previous year performance together with audited Accounts along with tariff petition for ensuing year.
- b) The Licensee has not filed the truing up petition for the previous years of FY

2018-19 and FY 2019-20 along with tariff petition for ensuing year FY 2021-22. However, the licensee has produced audited annual accounts further FY 2018-19 and provisional annual accounts for FY 2019-20.

- c) Commission in the Circumstances does not agree with the projections made in the petition for ARR and tariff for the ensuing year FY 2021-22 in the absence of actual performance duly audited for FY 2019-20. Commission would consider the ARR allowing inflation rates for the ensuing year FY 2021-22 over the last audited actual performance for FY 2017-18.
- d) Commission had to finalize the ARR and tariff for ensuing year on the basis of accepted norms in the absence of audited reports so as to ensure the release of tariff order on time.

# 4.24 True up Gap / Surplus for previous years

Commission had approved the True up of business for the FY 2017-18. The Revenue Gap/Surplus in the Trued down business for FY 2017-18 has been appropriated in the ARR for FY 2021-22.

# 4.25 Special Tariff for HT and EHT categories BIA

The Commission has approved the proposal for a special tariff via order dated 19-10-2020 for members of BIA consumers as per the MoU signed between the MePDCL and BIA. MePDCL will be supplying power to them at special tariff of Rs 4.90 per KVAh and with a commitment from these consumers to maintain a load factor of 68%.

Thus, in line with the order, the licensee is creating a subcategory under Industrial HT and EHT for this special tariff group. In line with the terms of the MoU, the tariff for the above category is Rs 4.9 per KVAh.

# 4.26 Separate Tariff category for Electric Vehicle Charging Stations

The Licensee has proposed separate commercial Tariff under LT & HT category for electric vehicle charging stations as per the standards and guidelines notified by the ministry of power, Government of India in its letter dated 14.12.2018. The Licensee shall submit a status report as soon as the consumers registered their charging stations with the distribution company as per the IE rules and safety norms.

# 4.27 Time of the Day Tariff

Commission has considered the TOD for the peak and off -peak hours for FY 2021-22 and Tariff rates are determined.

# 4.28 Cross Subsidy Surcharge

Commission has computed cross subsidy surcharge for FY 2021-22 in respect of HT and EHT category consumers as per the National Tariff Policy and Principles.

# 4.29 Wheeling Charges

Commission has observed that the Licensee has not furnished the data of revenue received from the HT & EHT consumers for the open access services provided during the period from FY 2018-19 to FY 2020-21. However Commission has considered the wheeling charges to be collected from the open access consumers for the FY 2021-22 as per MSERC (Terms and Conditions of Open Access) Regulations, 2012.

# 4.30 ARR for FY 2021-22 to FY 2023-24

Commission considers that the ARR and tariff order is passed in the absence of audited results for FY 2019-20. The estimates are considered based on the Statement of Accounts for FY 2018-19 certified by the statutory auditors, provisional statement of accounts for FY 2019-20 and assumed estimates of the ARR for FY 2020-21 and for the control period without reference to the numbers approved in the business plan for the control period FY 2021-22 to FY 2023-24.

# 5. Analysis of ARR for 3<sup>rd</sup> MYT Control period FY 2021-22 to FY2023-24 and Retail Tariff for FY 2021-22

# 5.1 Tariff Regulations

Under Section 61 of Electricity Act 2003, the Commission has to specify terms and conditions for determination of tariff and in doing so it shall be guided by the following:

- The principles and methodology specified by CERC for determination of Generation, Transmission and Distribution tariff.
- Business of generation, transmission and distribution are to be conducted on commercial principles.
- The factors which encourage development, competition efficiency, good performance and optimum investments.
- Safeguarding consumers interest and at the same time recovery of the cost of electricity in a reasonable manner.
- Principles regarding efficiency in the performance.
- Multiyear tariff principles based on efficiency target.
- Tariff should reflect cost of supply progressively.
- Promotion of generation from renewable energy.
- National Electricity Policy and Tariff policy

# 5.2 Determination of Tariff

Section 62 (3) of EA 2003 specifies that - the appropriate commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.

Section 65 of EA 2003 – Provision of subsidy by state Government- *If the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the State Commission under section 62, the State Government shall, notwithstanding any direction which may be given under section*  108, pay, in advance and in such manner as may be specified, the amount to compensate the person affected by the grant of subsidy in the manner the state Commission may direct, as a condition for the licensee or any other person concerned to implement the subsidy provided for by the State Government.

PROVIDED that no such direction of the State Government shall be operative if the payment is not made in accordance with the provisions contained in this section and the tariff fixed by the State Commission shall be applicable from the date of issue of orders by the Commission in this regard.

# 5.3 Regulatory Accounts

The Licensee shall maintain and file Regulatory accounts along with Tariff Petition and True up petition based on the Regulatory accounts as mandated in Regulation 4.2 (c) of MYT Regulations 2014.

# 5.4 Energy Sales

As per Regulations, proper estimation of category-wise energy sales for FY 2021-22 is essential to arrive at the quantum of power to be purchased and the likely revenue from sale of energy.

This Section examines details of consumer category-wise energy sales projected by MePDCL in its Petition for FY 2021-22 for approval of ARR.

# 5.5 Category wise Number of Consumers

# **Petitioner's Submission**

The Petitioner has not submitted Category-wise Number of Consumers for the Control Period FY 2021-22 to FY 2023-24.

On a query from the Commission vide Lr. No MSERC/MePDCL/Letter 2020/085 Dated 18<sup>th</sup> January 2021, MePDCL has submitted the year wise projections of number of consumers as shown in the Table below:

SI. No	Category	Number of Consumers projected for FY 2021-22	Number of Consumers projected for FY 2022-23	Number of Consumers projected for FY 2023-24
	LT Category	648065	663177	676614
1	Domestic	343944	352336	360933
2	Commercial	31692	33254	34894
3	Industrial	695	695	695
4	Agriculture	228	326	465
5	Public Lighting	60	62	64
6	Water Supply	476	497	519
7	General purpose	2492	2529	2566
8	Kutir Jyoti	268477	273477	276477
9	Crematorium	1	1	1
	HT Category	659	679	701
1	Domestic	95	99	104
2	Water Supply	27	27	27
3	Bulk Supply	236	252	269
4	Commercial	167	167	167
5	Industrial	124	122	120
6	Ferro Alloys	2	2	2
	Special tariff	8	10	12
	EHT Category	9	10	11
1	Industrial	2	2	2
2	Ferro Alloys	4	4	4
3	Special tariff	3	4	5
	Total	648733	663866	677326

Table 5.1 : Number of Consumers projected for the Control Period from FY 2021-22 to FY2023-24

# **Commission's Analysis:**

The Petitioner has submitted data pertaining to Category wise number of Consumers for the Control Period FY 2021-22 to FY 2023-24 vide letter no. MePDCL/SE(RA)/BP/FY2021-24/2020-21/52 dated 29<sup>th</sup> January 2021.

The Commission has approved Category wise number of consumers for the Control period for FY 2021-22 to FY 2023-24 as projected by the petitioner shown in the Table below:

	& F1 2023-24				
SI. No	Category	Number of Consumers approved for the FY 2021-22	Number of Consumers approved for the FY 2022-23	Number of Consumers approved for the FY 2023-24	
	LT Category	648065	663177	676614	
1	Domestic	343944	352336	360933	
2	Commercial	31692	33254	34894	
3	Industrial	695	695	695	
4	Agriculture	228	326	465	
5	Public Lighting	60	62	64	
6	Water Supply	476	497	519	
7	General purpose	2492	2529	2566	
8	Kutir Jyoti	268477	273477	276477	
9	Crematorium	1	1	1	
	HT Category	659	679	701	
1	Domestic	95	99	104	
2	Water Supply	27	27	27	
3	Bulk Supply	236	252	269	
4	Commercial	167	167	167	
5	Industrial	124	122	120	
6	Ferro Alloys	2	2	2	
	Special tariff	8	10	12	
	EHT Category	9	10	11	
1	Industrial	2	2	2	
2	Ferro Alloys	4	4	4	
3	Special tariff	3	4	5	
	Total	648733	663866	677326	

Table 5.2 : Number of consumers approved for the Control Period FY 2021-22, FY 2022-22& FY 2023-24

# 5.6 Connected Load

# **Petitioner's Submission**

The Commission in its Business Plan Order has approved the connected load and sale within the state for the next control period. However, with the introduction of special tariff, which came after the submission of Business Plan, the licensee is modifying the total sale and connected load for FY 2021-22 to make tariff and revenue projections more realistic.

As on date, a total of 10 No. of the industrial (including 2 Open Access) consumers have applied to avail special tariff. 6 of the existing HT industries are included in this list adding to 25.6 MVA and 2 OA consumers adding to 17.2 MVA are part of this list. Thus, the connected load for Special Tariff Industries under HT is 42.80 MVA.

- a) The Commission had approved connected load of 167 MVA for HT industries. So, the connected load for industries other than special tariff is 141.40 MVA (167MVA- 25.60 MVA) for 6 existing industries who are opting for special tariff.
- b) In EHT 2 industries are availing special tariff adding to 14.3 MVA connected load.
   On a query from the Commission vide Lr. No MSERC/MePDCL/Letter 2020/085
   Dated 18<sup>th</sup> January 2021, MePDCL has submitted the year wise projections of number of consumers as shown in the Table below:

Table 5.3 : Connected Load projected for the Control Period for FY 2021-22 to FY 2023-24(MVA)

SI. No	Category	Connected Load projected by the petitioner for FY 2021-22	Connected Load projected by the petitioner FY 2022-23	Connected Load projected by the petitioner for FY 2023-24
	LT Category	678.58	717.09	757.99
1	Domestic	475.00	507.00	540.00
2	Commercial	79.00	83.00	87.00
3	Industrial	11.00	11.00	11.00
4	Agriculture	0.00	0.00	0.00
5	Public Lighting	0.00	0.00	0.00
6	Water Supply	7.00	7.00	8.00
7	General purpose	18.00	19.00	21.00
8	KutirJyoti	88.43	89.93	90.83
9	Crematorium	0.15	0.16	0.16
	HT Category	301.20	304.20	316.00
1	Domestic	19.00	20.00	20.00
2	Water Supply	9.00	10.00	10.00
3	Bulk Supply	46.00	46.00	46.00
4	Commercial	32.00	33.00	34.00
5	Industrial	141.40	131.00	206.00
6	Ferroy Alloy	11.00	11.00	
7	Special tariff	42.80	53.20	
	EHT Category	91.70	101.70	78.87
1	Industrial	10.70	10.70	10.70
2	Ferro Alloys	56.00	56.00	68.17
	Special tariff	25.00	35.00	
	Total	1071.48	1122.99	1152.86

# **Commission's Analysis**

The Commission has approved Connected load for the Control Period i.e., FY 2021-22 to FY 2023-24 in its Business Plan Order dated 09.10.2020. Subsequently the

petitioner has introduced special tariff for Industrial HT and Industrial EHT category submitted category wise connected load for the FY 2021-22 to FY 2023-24 vide letter no. MePDCL/SE(RA)/BP/FY2021-24/2020-21/52 dated 29<sup>th</sup> January 2021. The petitioner has introduced special tariff for Industrial HT and Industrial EHT category with connected load for FY 2021-22. Commission after analyzing the information submitted by the petitioner has approved the connected load control period i.e., for FY 2021-22, FY 2022-23 & FY 2023-24 as filed vide Annexure-II in their letter dated 29<sup>th</sup> January 2021 as shown in the Table below:

Table 5.4 : Connected Load approved for the Control period FY 2021-22 to FY 2023-24(MVA)

SI. No	Category	Connected Load approved by the petitioner for FY 2021-22	Connected Load approved by the petitioner FY 2022-23	Connected Load approved by the petitioner for FY 2023-24
	LT Category	678.58	717.09	757.99
1	Domestic	475.00	507.00	540.00
2	Commercial	79.00	83.00	87.00
3	Industrial	11.00	11.00	11.00
4	Agriculture	0.28	0.00	0.00
5	Public Lighting	0.39	0.00	0.00
6	Water Supply	7.00	7.00	8.00
7	General purpose	18.00	19.00	21.00
8	KutirJyoti	88.43	89.93	90.83
9	Crematorium	0.15	0.16	0.16
	HT Category	301.20	304.20	305.20
1	Domestic	19.00	20.00	20.00
2	Water Supply	9.00	10.00	10.00
3	Bulk Supply	46.00	46.00	46.00
4	Commercial	32.00	33.00	34.00
5	Industrial	141.40	131.00	120.00
6	Ferro Alloy	11.00	11.00	11.00
7	Special tariff	42.80	53.20	64.20
	EHT Category	91.70	101.70	111.70
1	Industrial	10.70	10.70	10.70
2	Ferro Alloys	56.00	56.00	56.00
-	Special tariff	25.00	35.00	45.00
	Total	1072.15	1122.99	1174.89

# 5.7 Energy Sales

# **Petitioner's Submission**

Sales in MUs for Special tariff HT and EHT have been arrived based on their current load factor of 22%. Any increase in consumption and subsequent revenue recovery shall be adjusted in the true up.

Sales in MUs for HT Industries other than special tariff [Sl. No. 3) b in the HT Category in the above table] have been arrived at in ratio of its revised connected load with respect to its earlier connected load i.e corresponding MUs revised from 170.53 MUs when connected load changes from 167 MVA to 141.40 MVA.

Apart from Special Tariff HT, EHT and others Industries HT and EHT, other categories connected load and sale of power is the same as approved in the Business Plan Order dated 09.10.2020.

Table 5.5 : Energy Sales projected for the Control period FY 2021-22 to FY 2023-24

(MU)

SI. No	Category	Energy Sales projected by the petitioner for FY 2021-22	Energy Sales projected by the petitioner FY 2022-23	Energy Sales projected by the petitioner for FY 2023-24
	LT Category	597.39	606.14	614.56
1	Domestic	400.61	404.70	408.82
2	Commercial	75.39	77.28	79.21
3	Industrial	6.08	6.21	6.34
4	Agriculture	0.58	0.78	1.07
5	Public Lighting	0.12	0.12	0.12
6	Water Supply	11.77	12.76	13.83
7	General purpose	17.52	17.52	17.52
8	KutirJyoti	85.11	86.55	87.42
9	Crematorium	0.21	0.22	0.23
	HT Category	435.99	475.44	519.29
1	Domestic	24.81	25.15	25.50
2	Water Supply	32.84	33.35	33.87
3	Bulk Supply	96.96	103.64	110.78
4	Commercial	27.72	27.87	28.02
5	Industrial	144.39	150.58	157.00
6	Ferroy Alloy	35.03	36.28	37.58
7	Special tariff	74.24	98.57	126.54
	EHT Category	437.41	465.80	493.52
1	Industrial	52.98	53.41	54.41
2	Ferro Alloys	341.07	347.54	350.41
	Special tariff	43.36	64.85	88.70
	Total	1470.79	1547.38	1627.37

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# **Commission's Analysis**

Proper estimation of category-wise energy sales for control period FY 2021-22 to FY 2023-24 is essential to arrive at the quantum of power to be purchased and the likely revenue from sale of energy. This Section examines details of consumer category-wise energy sales projected by MePDCL in its Petition for 3<sup>rd</sup> MYT control period FY 2021-22 to FY 2023-24 for approval of ARR.

On a query from the Commission, the Petitioner has submitted data pertaining to Category wise Energy Sales for the Control Period FY 2021-22 to FY 2023-24 in their letter no. MePDCL/SE(RA)/BP/FY2021-24/2020-21/52 dated 29<sup>th</sup> January 2021.

Commission had approved a special Tariff for HT & EHT Industrial Consumers applicable to the BIA members effective from 01<sup>st</sup> November 2020. The Sales in respect of special tariff consumers as filed in the additional information dated 29<sup>th</sup> January 2021 is considered for computation of ARR and determination of retail tariff for 3<sup>rd</sup> MYT control period.

The Commission after analyzing the information submitted by the petitioner has approved the Energy Sales for FY 2021-22 to FY 2023-24 as estimated by the Petitioner as shown in the Table below:

SI. No	Category	Energy Sales approved for FY 2021-22	Energy Sales approved for FY 2022-23	Energy Sales approved for FY 2023-24
	LT Category	597.39	606.14	614.56
1	Domestic	400.61	404.70	408.82
2	Commercial	75.39	77.28	79.21
3	Industrial	6.08	6.21	6.34
4	Agriculture	0.58	0.78	1.07
5	Public Lighting	0.12	0.12	0.12
6	Water Supply	11.77	12.76	13.83
7	General purpose	17.52	17.52	17.52
8	KutirJyoti	85.11	86.55	87.42
9	Crematorium	0.21	0.22	0.23
	HT Category	435.99	475.44	519.29
1	Domestic	24.81	25.15	25.50
2	Water Supply	32.84	33.35	33.87
3	Bulk Supply	96.96	103.64	110.78
4	Commercial	27.72	27.87	28.02
5	Industrial	144.39	150.58	157.00
6	Ferroy Alloy	35.03	36.28	37.58
7	Special tariff	74.24	98.57	126.54
	EHT Category	437.41	465.80	493.52
1	Industrial	52.98	53.41	54.41
2	Ferro Alloys	341.07	347.54	350.41
	Special tariff	43.36	64.85	88.70
	Total	1470.79	1547.38	1627.37

#### Table 5.6 : Energy Sales approved for the Control period FY 2021-22 to FY 2023-24

Table 5.7 : Approved Energy Sales for the Control period FY 2021-22 to FY 2023-24

(MU)

(MU)

Particulars	FY 2021-22	FY 2022-23	FY 2023-24
Projected by MePDCL	1470.79	1547.38	1627.37
Approved by MSERC	1470.79	1547.38	1627.37

#### 5.8 Distribution Loss

# Petitioner's Submission

The Petitioner has not filed Distribution Losses for the Control Period i.e FY 2021-22 to FY 2023-24 in the petition.

# **Commission's Analysis**

The Petitioner has not filed the distribution losses for the Control period i.e., FY 2021-22 to FY 2023-24. Hence, the Commission has considered the Distribution

Losses as approved in the Business Plan Order for the Control period i.e., FY 2021-22 to FY 2023-24.

Table 5.8 : Distribution Loss approved for the Control period FY 2021-22 to FY 2023-24
Table 5.8 : Distribution Loss approved for the Control period FY 2021-22 to FY 2023-24

Particulars	FY 2021-22	FY 2022-23	FY 2023-24		
Distribution Loss	12%	12%	12%		

#### 5.9 Aggregate Technical and Commercial Loss (AT&C Loss)

#### Petitioner's Submission

The Petitioner has not filed Aggregate Technical and Commercial Loss (AT&C Loss) for the Control period i.e., FY 2021-22 to FY 2023-24.

#### **Commission Analysis**

Since, the petitioner has not projected AT&C loss for the Control Period FY 2021-22 to FY 2023-24, Commission considered AT&C loss for the Control Period FY 2020-21 to FY 2023-24 as approved in the Business Plan Order for FY 2021-22 to FY 2023-24.

#### Table 5.9 : AT&C Loss Trajectory approved for Control period FY 2021-22 to FY 2023-24

Particulars	FY 2021-22	FY 2022-23	FY 2023-24
AT&C Loss	15.08%	14.64%	14.20%

#### 5.10 **Power Procurement**

# **Petitioner's Submission**

The Power availability in the state of Meghalaya is primarily through two long term sources:

- a) From the state owned generating stations of MePGCL and
- b) From the firm allocated share of central Power sector generating companies like NEEPCO, NHPC, NTPC etc.,

Apart from these, in order to meet short term peak demands, it also procures some amount of power from the various traders and energy exchanges.

MePDCL has submitted that the price of power purchase for FY 2020-21 and control period FY 2021-22 to FY 2023-24 have been calculated based on the actual and provisional figures of FY 2019-20 and FY 2020-21 respectively and quantum of power approved in the business plan with the following considerations from each generating station:

# i) MePGCL:

Power Purchase costs has been estimated using the following considerations:

- a) FY 2020-21 estimations: It is based on the approved tariff rates of MePGCL generating plants for FY 2020-21as per the MePGCL order dated 25.03.2020
- b) FY 2021-22: The projected Annual Fixed Charges (AFC) and tariff rates of each plant in the MYT petition of MePGCL for 3rd control period have been considered for projections.
- c) FY 2022-23 and FY 2023-24: The tariff rates for FY 2020-21 has been escalated by 5% year on year.

ii) NTPC

- a) MePDCL has surrendered power from NTPC sources (excluding NTPC Bongaigaon) given the higher tariff of NTPC plants compared to other sources.
- b) NTPC Bongaigaon: For NTPC Bongaigaon , the licensee had not projected any power procurement in the Business Plan. Since, the licensee is availing loans under the Central Government Aatma Nirbhar Scheme to help it repay the past power purchase dues, subsequently it is planning to procure power from this source in the 3rd control period. This power purchase will help the Discom cater to the growing demand in the state. The Licensee has projected fixed cost payments for the control period based on the actual fixed charges payable in FY 2019-20.

The average per unit energy charge for FY 2019-20 for Bongaigaon is Rs 3.44. The subsequent per unit energy charges has been arrived at considering year on year escalation of 5% for the subsequent years.

iii) NHPC

MePDCL had surrendered power from NHPC Loktak earlier, however it will start procuring power from NHPC Loktak from FY 2021-22 onwards,. The power purchase cost from NHPC Loktak Generating Station has been projected based on the average rate for FY 2020-21 i.e Rs 3.59 as per MSPDCL tariff order dated 20 March 2020 (Table 7.5) escalated by 5% for the future years and approved MUs as per the present approved Business Plan.

#### iv) NEEPCO

The power regulation from NEEPCO sources has now been removed and MePDCL expects to draw power at full allocation for the control period. The fixed cost and variable rate of power purchase (all NEEPCO plants excluding Kameng) has been assumed based on actual of past years for each of the plant. For Kameng HEP, the levelized tariff of Rs 4.14 per unit has been used for determination of power purchase costs.

#### v) OTPC

The power purchase cost from OTPC Palatana Generating Station has been projected based on the actual figures of FY 2019-20 costs escalated by 5% for the future years.

#### vi) Solar Sources

In the control period, the Discom is scheduled to purchase power from solar sources. This is in line with its target to increase its renewable purchase which will help it meet its solar obligations under RPO.

The licensee plans to procure 20 MW power from the solar parks in the state (2\*10 MW) and 10 MW under PM Kusum Scheme. The tender works for the same is in process and shall be completed by end of this month. The licensee has considered capacity utilization factor of 15% to arrive at approximately 40 MUs of procurement for each year of the control period.

The licensee has arrived at power purchase cost by considering per unit rate of Rs 3.5 per unit. The rate has been arrived by considering the present market rate and demographics of the state.

# vii) 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 thus any variation in power purchase costs in the remaining control period due to purchase from short term sources will be considered in the true up.

# viii) Surcharge levied by Central Generating Stations:

The above payments have not been taken into account while projecting the power purchase costs for FY 2018-19 and FY 2019-20, the supplementary costs (excluding surcharge) has been taken into account for projections.

#### ix) Power Purchase Quantum for FY 2020-21

The Commission in its Business Plan order dated 09.10.2020 has notified the power procurement in MUs for FY 2021-22 to FY 2023-24. However in the absence of power procurement details for FY 2020-21 in the order, the licensee is considering the power procurement of FY 2021-22 for FY 2020-21 as well barring NHPC Loktak, from which MePDCL will start procuring from FY 2021-22.

Table 5.10 : Power Purchase FY 2018-19 (Actual)

SI. No	Source	Energy received (MU)	Variable Cost per Unit (Rs/KWH)	Total Variable Cost	Total Fixed Cost	Supplementary Amount	Surcharge	Supplementary Amount (Excluding Surcharge)	Total Cost (5+6+7)	Unit Cost (Rs. / KWH)
		1	2	3	4	5	6	7=5-6	3+4+7	
1	MePGCL									
	a) Umiam Stage-I HEP	84.15	0.20	1.73	2.36				4.08	0.48
	b) Umiam Stage-II HEP	43.05	0.29	1.25	1.31				2.55	0.59
	c) Umiam Stage-III HEP	132.91	0.29	3.79	3.92				7.71	0.58
	d) Umiam Stage-IV HEP	165.49	0.19	3.18	3.92				7.10	0.43
	e) Sonapani	7.07	0.18	0.13	0.10				0.23	0.33
	f) Umtru HEP	-0.06	0.00	0.00	0.89				0.89	
	g) Myntdu-Leishka HEP	360.31	1.73	62.41	82.97				145.38	4.03
	h) New Umtru HEP	178.36	0.74	13.24	13.21				26.44	1.48
	i) Lakroh HEP	0.08	0.13	0.00	0.02				0.02	2.89
	j) Auxiliary Consumption	0.00								
2	NTPC									
	a) Farakka	0.00		0.00	0.00	0.06		0.06	0.06	
	b) Kahalgaon I	0.00		0.00	0.00	0.01		0.01	0.01	
	c) Khalgaon II	0.00		0.00	0.00	0.04		0.04	0.04	
	d) Talcher	0.00		0.00	0.00	0.05		0.05	0.05	
	e) Bongaigoan	0.00		0.00	106.69	34.05	51.13	-17.08	89.62	
3	NHPC									
	a) Loktak HEP	0.00		0.00	0.00	2.00	1.99	0.01	0.01	
4	NEEPCO	0.00								
	a) Kopili Stage-I	96.77	0.58	5.63	8.57	0.83		0.83	15.02	1.55
	b) Kopili Stage-II	6.71	0.82	0.55	0.58	0.12		0.12	1.25	1.86
	c) Khandong HEP	19.06	0.84	1.60	2.74	0.36		0.36	4.70	2.46
	d) Rangandai HEP	109.27	1.04	11.33	17.27	3.53		3.53	32.13	2.94
	e) Doyang HEP	23.75	2.74	6.50	5.78	1.22		1.22	13.50	5.69

SI. No	Source	Energy received (MU)	Variable Cost per Unit (Rs/KWH)	Total Variable Cost	Total Fixed Cost	Supplementary Amount	Surcharge	Supplementary Amount (Excluding Surcharge)	Total Cost (5+6+7)	Unit Cost (Rs. / KWH)
	f) AGBPP	119.06	1.82	21.70	35.65	2.62		2.62	59.96	5.04
	g) AGTPP C-Cycle	51.28	1.89	9.70	13.05	2.56		2.56	25.31	4.94
	h) Pare	40.84	5.00	20.42	0.00	0.04		0.04	20.46	5.01
	i) NEEPCO Surcharge	0.00		0.00	0.00	47.02	47.02	0.00	0.00	
	j) Free Power	77.52	0.00	0.00	0.00	0.00		0.00	0.00	0.00
5	ОТРС									
	a) Pallatana	489.53	1.42	69.40	83.26	7.92	10.06	-2.14	150.52	3.07
6	Short Term									
	a) Mittal Processors Pvt. Ltd. (MPPL) – Swapping	111.95	0.15	1.68	0.00	0.00		0.00	1.68	0.15
	b) Meghalaya Power Ltd. (MPL) – Banking	11.75	0.00	0.00	0.00	0.00		0.00	0.00	0.00
	c) APPCL(Swap)	269.59	0.16	4.26	0.00	0.00		0.00	4.26	0.16
	d) Power Trading Corporation India Ltd (PTCIL) – Swapping	0.00		0.00	0.00	0.00		0.00	0.00	
	e) Adhunik Cement Ltd (Swapping)	15.46	0.00	0.00	0.00	0.00		0.00	0.00	0.00
	f) NVVN (swapping)	0.49	0.15	0.01	0.00	0.00		0.00	0.01	0.15
	g) MPPL (Solar RECs)	0.00		0.17	0.00	0.00		0.00	0.17	
	g) Deviation Inter	6.62	5.74	3.80	0.00	0.00		0.00	3.80	5.74
	g) Deviation Intra	4.55	-3.05	-1.39	0.00	0.00		0.00	-1.39	
7	Other Charges									
	a) POSOCO Charges				1.14	0.00		0.00	1.14	
	b) Reactive Charges (Pool)				0.00	-0.41		-0.41	-0.41	
	Total	2425.55		241.07	383.43	102.01	110.20	-8.19	616.30	2.54

Table 5.11 : Power Purchase FY 2019-20 (Provisional)

SI. No	Source	Energy received (MU)	Variable Cost per Unit (Rs/KWH)	Total Variable Cost	Total Fixed Cost	Supplementary Amount	Surcharge	Supplementary Amount (Excluding Surcharge)	Total Cost (5+6+7)	Unit Cost (Rs. / KWH)
1	MePGCL									
	a) Umiam Stage-I HEP	107.31	0.24	2.62	2.84				5.45	0.51
	b) Umiam Stage-II HEP	54.91	0.35	1.90	1.58				3.48	0.63
	c) Umiam Stage-III HEP	140.97	0.34	4.78	4.73				9.50	0.67
	d) Umiam Stage-IV HEP	163.38	0.23	3.73	4.73				8.45	0.52
	e) Sonapani	3.55	0.22	0.08	0.12				0.20	0.56
	f) Umtru HEP	-0.06	0.00	0.00	0.95				0.95	
	g) Myntdu-Leishka HEP	417.87	1.68	70.16	81.64	163.00		163.00	314.79	7.53
	h) New Umtru HEP	180.15	0.72	12.95	13.00				25.95	1.44
	i) Lakroh HEP	2.08	0.15	0.03	0.17				0.20	0.97
	j) Auxiliary Consumption					-0.07		-0.07	-0.07	
2	NTPC									
	a) Farakka	0.00				-0.08		-0.08	-0.08	
	b) Kahalgaon I									
	c) Khalgaon II	0.00				-0.01		-0.01	-0.01	
	d) Talcher	0.00				-0.01		-0.01	-0.01	
	e) Bongaigoan	0.00			148.21	55.64	50.34	5.30	153.51	
3	NHPC									
-	a) Loktak HEP	0.00		0.00	0.00	1.74	1.74	0.00	0.00	
4	NEEPCO									
	a) Kopili Stage-I	64.47	0.58	3.75	4.87	0.52		0.52	9.14	1.42
	b) Kopili Stage-II	6.51	0.85	0.55	0.49	-0.55		-0.55	0.50	0.76
	c) Khandong HEP	16.16	0.83	1.35	2.01	-1.53		-1.53	1.83	1.13
	d) Rangandai HEP	126.91	1.02	12.96	18.01	-0.26		-0.26	30.71	2.42
	e) Doyang HEP	19.18	2.73	5.24	6.35	-0.37		-0.37	11.22	5.85
	f) AGBPP	161.19		34.50	38.39	-1.44		-1.44	71.45	4.43

SI. No	Source	Energy received (MU)	Variable Cost per Unit (Rs/KWH)	Total Variable Cost	Total Fixed Cost	Supplementary Amount	Surcharge	Supplementary Amount (Excluding Surcharge)	Total Cost (5+6+7)	Unit Cost (Rs. / KWH)
	g) AGTPP C-Cycle	90.00	2.51	22.56	17.32	0.86		0.86	40.74	4.53
	h) Pare	53.55	5.00	26.77	0.04	0.02		0.02	26.83	5.01
	i) NEEPCO Surcharge					63.50	63.50	0.00	0.00	
	j) Free Power	59.85								
5	ОТРС									
	a) Pallatana	400.63	1.61	64.41	62.48	12.29	12.09	0.20	127.10	3.17
6	Short Term									
	a) Kreate Energy (I) Pvt Ltd (Swap)	105.62	0.18	1.89	0.00	0.00		0.00	1.89	0.18
	b) Kreate Energy (I) Pvt Ltd (IEX)	0.14	3.66	0.05	0.00	0.00		0.00	0.05	3.66
	c) APPCL(Swap)	124.47	0.25	3.14	0.00	0.00		0.00	3.14	0.25
	d) Power Trading Corporation India Ltd (PTCIL) - Swapping	0.00		0.01	0.00	0.00		0.00	0.01	
	e) Adhunik Cement Ltd (Swapping)	12.64	0.00	0.00	0.00	0.00		0.00	0.00	0.00
	f) NVVN (swapping)	0.00		0.00	0.00	0.00		0.00	0.00	
	g) Mehalaya Power Ltd (Swap)	4.02	0.00	0.00	0.00	0.00		0.00	0.00	0.00
	g) Deviation Inter	59.93	3.22	19.30	0.00	0.00		0.00	19.30	3.22
	g) Deviation Intra	5.04	-0.04	-0.02	0.00	0.00		0.00	-0.02	-0.04
7	Other Charges									
	a) POSOCO Charges				1.56	0.00		0.00	1.56	
	b) Reactive Charges (Pool)					-0.12		-0.12	-0.12	
	Total	2380.46		292.72	409.44	293.14	127.67	165.47	867.64	3.64

Table 5.12 : Power Purchase Cost (estimated) for FY 2020-21

					-		(NS.CIDIE)	
SI	Source	Energy received (MU)	Variable Cost per Unit (Rs/KWH)	Total Variable Cost	Total Fixed Cost	Supplementary Amount (Excluding Surcharge)	Total Cost (5+6+7)	Unit Cost (Rs. / KWH)
1	MePGCL							
	a) Umiam Stage-I HEP	114.61	0.77	8.82	8.82		17.65	1.54
	b) Umiam Stage-II HEP	45.45	1.10	4.98	4.98		9.95	2.19
	c) Umiam Stage-III HEP	137.33	1.07	14.69	14.69		29.39	2.14
	d) Umiam Stage-IV HEP	203.90	0.72	14.68	14.68		29.36	1.44
	e) Sonapani	4.94	0.68	0.34	0.34		0.67	1.36
	f) Umtru HEP	0.00		0.00	0.00		0.00	
	g) Myntdu-Leishka HEP	478.71	0.65	30.88	30.88		61.75	1.29
	h) New Umtru HEP	231.48	0.43	9.84	9.84		19.68	0.85
	i) Lakroh HEP	10.87	0.34	0.37	0.37		0.74	0.68
	j) Ganol HEP	0.00						
	m) Auxiliary							
	Consumption							
2	NTPC							
	a) Farakka	0.00					0.00	
	b) Kahalgaon I	0.00					0.00	
	c) Khalgaon II	0.00					0.00	
	d) Talcher	0.00					0.00	
	e) Bongaigoan	0.00			155.62	5.56	161.18	
3	NHPC							
	a) Loktak HEP							
4	NEEPCO							
	a) Kopili Stage-I	82.23	0.61	5.03	5.11		10.14	1.23
	b) Kopili Stage-II	8.48	0.89	0.76	0.51		1.27	1.50
	c) Khandong HEP	17.53	0.88	1.53	2.11		3.64	2.08
	d) Rangandai HEP	131.25	1.07	14.08	18.91		32.98	2.51
	e) Doyang HEP	23.65	2.87	6.78	6.66		13.44	5.68
	f) AGBPP	187.65	0.00	0.00	40.31		40.31	2.15
	g) AGTPP C-Cycle	119.00	2.63	31.33	18.19		49.52	4.16
	h) Pare	42.92	5.25	22.53	0.04		22.57	5.26
	i) Kameng	45.99					19.04	4.14
5	ОТРС							
	a) Pallatana	436.79	1.69	73.73	65.61	0.21	139.55	3.19
	Total	2322.78		240.36	397.66	5.77	662.84	2.85

SI. No	Source	Energy received (MU)	Variable Cost per Unit (Rs/KWH)	Total Variable Cost	Total Fixed Cost	Supplementary Amount	Total Cost	Unit Cost (Rs. / KWH)
1	MePGCL							
	a) Umiam Stage-I HEP	114.61	0.71	8.14	8.14		16.29	1.42
	b) Umiam Stage-II HEP	45.45	1	4.52	4.52		9.05	1.99
	c) Umiam Stage-III HEP	137.33	0.99	13.57	13.57		27.15	1.98
	d) Umiam Stage-IV HEP	203.9	0.67	13.57	13.57		27.15	1.33
	e) Sonapani	4.94	0.69	0.34	0.34		0.68	1.37
	f) Umtru HEP	0						
	g) Myntdu-Leshka HEP	478.71	1.89	90.52	90.52		181.03	3.78
	h) New Umtru HEP	231.48	2.24	51.83	51.83		103.66	4.48
	i) Lakroh HEP	10.87	1.94	2.11	2.1		4.21	3.87
	j) Ganol HEP							
	m) Auxiliary							
	Consumption							
2	NTPC							
	a) Farakka	0					0	
	b) Kahalgaon I	0					0	
	c) Khalgaon II	0					0	
	d) Talcher	0					0	
	e) Bongaigoan	589.5	3.79	223.57	163.4	5.84	392.81	
3	NHPC							
	a) Loktak HEP	40.28	1.88	7.59	7.59		15.18	3.77
4	NEEPCO							
	a) Kopili Stage-I	82.23	0.64	5.28	5.37		10.64	1.29
	b) Kopili Stage-II	8.48	0.94	0.79	0.54		1.33	1.57
	c) Khandong HEP	17.53	0.92	1.61	2.21		3.82	2.18
	d) Rangandai HEP	131.25	1.13	14.78	19.85		34.63	2.64
	e) Doyang HEP	23.65	3.01	7.12	7		14.12	5.97
	f) AGBPP	187.65	0	0	42.32		42.32	2.26
	g) AGTPP C-Cycle	119	2.76	32.89	19.1		51.99	4.37
	h) Pare	42.92	5.51	23.66	0.04		23.7	5.52
	i) Kameng	45.99					19.04	4.14
5	OTPC							
	a) Pallatana	436.79	1.77	77.42	68.89	0.22	146.53	3.35
6	Solar Sources	39.42					13.8	3.5
	Total	2991.98					1139.15	3.81

(Rs.Crore)
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	1	1		1	1		-	
SI. No	Source	Energy received (MU)	Variable Cost per Unit (Rs/KWH)	Total Variable Cost	Total Fixed Cost	Supplementary Amount	Total Cost (5+6+7)	Unit Cost (Rs. / KWH)
1	MePGCL							
	a) Umiam Stage-I HEP	114.61	0.75	8.55	8.55		17.1	1.49
	b) Umiam Stage-II HEP	45.45	1.05	4.75	4.75		9.5	2.09
	c) Umiam Stage-III HEP	0	1.04	0	14.25		14.25	
	d) Umiam Stage-IV HEP	203.9	0.7	14.25	14.25		28.51	1.4
	e) Sonapani	4.94	0.72	0.36	0.36		0.71	1.44
	f) Umtru HEP	0	0	0	0		0	
	g) Myntdu-Leishka HEP	478.71	1.99	95.04	95.04		190.08	3.97
	h) New Umtru HEP	231.48	2.35	54.42	54.42		108.85	4.7
	i) Lakroh HEP	10.87	2.04	2.21	2.21		4.42	
	j) Ganol HEP	66.2	2.3	15.19	15.19		30.39	4.59
	m) Auxiliary Consumption							
2	NTPC							
	a) Farakka	0					0	
	b) Kahalgaon I	0					0	
	c) Khalgaon II	0					0	
	d) Talcher	0					0	
	e) Bongaigoan	589.5	3.98	234.75	171.57	6.14	412.45	
3	NHPC							
	a) Loktak HEP	40.28	1.98	7.97	7.97		15.94	3.96
4	NEEPCO							
	a) Kopili Stage-I	82.23	0.67	5.54	5.64		11.18	1.36
	b) Kopili Stage-II	8.48	0.98	0.83	0.56		1.4	1.65
	c) Khandong HEP	17.53	0.96	1.69	2.32		4.01	2.29
	d) Rangandai HEP	131.25	1.18	15.52	20.85		36.37	2.77
	e) Doyang HEP	23.65	3.16	7.47	7.35		14.82	6.27
	f) AGBPP	187.65	0	0	44.44		44.44	2.37
	g) AGTPP C-Cycle	119	2.9	34.54	20.05		54.59	4.59
	h) Pare	42.92	5.79	24.84	0.04		24.89	5.8
	i) Kameng	45.99					19.04	4.14
5	ОТРС							
	a) Pallatana	436.79	1.86	81.29	72.33	0.23	153.86	3.52
6	Solar Sources	39.42					13.8	3.5
	Total	2920.85					1210.59	4.14

Table 5.15 :	Power	Purchase	Cost	projected	for FY	2023-24
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(Rs.Crore)

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SI. No	Source	Energy received (MU)	Variable Cost per Unit (Rs/KWH)	Total Variable Cost	Total Fixed Cost	Supplementary Amount	Total Cost (5+6+7)	Unit Cost(Rs. / KWH)	
1	MePGCL								
	a) Umiam Stage-I HEP	114.61	0.78	8.98	8.98		17.96	1.57	
	b) Umiam Stage-II HEP	45.45	1.1	4.99	4.99		9.98	2.2	
	c) Umiam Stage-III HEP	0	1.09	0	14.97		14.97		
	d) Umiam Stage-IV HEP	203.9	0.73	14.97	14.97		29.93	1.47	
	e) Sonapani	4.94	0.76	0.37	0.37		0.75	1.51	
	f) Umtru HEP	0	0	0	0		0		
	g) Myntdu-Leishka HEP	478.71	2.08	99.79	99.79		199.59	4.17	
	h) New Umtru HEP	231.48	2.47	57.15	57.14		114.29	4.94	
	i) Lakroh HEP	10.87	2.14	2.32	2.32		4.64		
	j) Ganol HEP	66.2	2.3	15.19	15.19		30.39	4.59	
	m) Auxiliary								
	Consumption								
2	NTPC								
	a) Farakka	0					0		
	b) Kahalgaon I	0					0		
	c) Khalgaon II	0					0		
	d) Talcher	0					0		
	e) Bongaigoan	589.5	4.18	246.49	180.15	6.44	433.08		
3	NHPC								
	a) Loktak HEP	40.28	2.08	8.37	8.37		16.74	4.16	
4	NEEPCO								
	a) Kopili Stage-I	82.23	0.71	5.82	5.92		11.74	1.43	
	b) Kopili Stage-II	8.48	1.03	0.88	0.59		1.47	1.73	
	c) Khandong HEP	17.53	1.01	1.78	2.44		4.21	2.4	
	d) Rangandai HEP	131.25	1.24	16.3	21.89		38.18	2.91	
	e) Doyang HEP	23.65	3.32	7.85	7.71		15.56	6.58	
	f) AGBPP	187.65	0	0	46.66		46.66	2.49	
	g) AGTPP C-Cycle	119	3.05	36.26	21.06		57.32	4.82	
	h) Pare	42.92	6.08	26.08	0.04		26.13	6.09	
	i) Kameng	45.99					19.04	4.14	
5	ОТРС								
	a) Pallatana	436.79	1.95	85.36	75.95	0.24	161.55	3.7	
6	Solar Sources	39.42					13.8	3.5	
	Total	2920.85					1267.96	4.34	

MePDCL has requested the Commission to approve for the power purchase cost as projected above for the years FY 2021-22 to FY 2022-23 and FY 2023-24 of the Control period.

## **Commission's Analysis**

Regulation 85.1 to 85.6 of MSERC Regulations 2014 specifies the following guidelines.

**Regulation 85.1**: The Licensee shall procure power from approved sources. Additional energy required after taking into account the availability of energy from such approved sources, shall be reasonably estimated well in advance and procurement arrangements made for such long and medium term purchases by following standard contractual procedures. All such purchases shall only be made with the prior approval of the Commission.

**Regulation 85.2:** For purchase of electricity from sources outside the state, the transmission loss level agreed to in the Power Purchase Agreement (PPA) or worked out from energy accounts of RLDC/ SLDC shall be taken into account for purchase of power from such sources.

**Regulation 85.3:** The cost of power purchased from the central generating companies shall be worked out based on the tariff determination by the Central Electricity Regulatory Commission (CERC).

**Regulation 85.4**: Where power is purchased by the Licensee from State –Owned existing generating stations, the cost of power purchase shall be worked out based on the price determined by the State Commission and in case of power purchased from Renewable energy sources the quantum and the cost shall be as per the policy approved by the State Commission depending upon their jurisdiction.

**Regulation 85.5**: The cost of power purchase from IPP's shall be considered based on existing Power Purchase Agreement if nay, till the agreement period is over.

**Regulation 85.6**: In case of short-term power purchase necessitated based on unprecedented development, the Licensee may resort to short term procurement. In conformity with the above regulations the Commission notifies the following:-MePDCL shall follow the above Regulations invariably and Merit order procurement shall be strictly followed.

MePGCL in its Business Plan for the Control Period FY 2021-22 to FY 2023-24 has submitted that Umtru (4x2.8 MW) are out of service and so no generation from this station will be available for the years FY 2021-22 to FY 2023-24. It is also submitted

that Umiam Stage – III (2x30 MW) stations will be under shut down for R&M works and hence there shall be no generation from this station during the years FY 2022-23 to FY 2023-24. Ganol (3x7.5 MW) small hydro power station is expected to be commissioned during May 2022. Therefore MePGCL has projected energy generation from this station in FY 2022-23 and FY 2023-24.

Commission has called for the power purchase details for first half year of FY 2020-21 vide letter dated 18<sup>th</sup> January 2021. The Licensee has submitted Power Purchase details for first half year of FY 2020-21 provisional vide their letter dated 29<sup>th</sup> January 2021.

# **MePGCL**

The Power purchase cost has been considered based on the approved annual fixed charges for FY 2021-22.

## **NTPC**

Licensee has not projected power procurement from Bongaigaon project in the Business plan for FY 2021-22 to FY 2023-24. The fixed cost for Rs.163.40 crore and supplementary amount for Rs.5.84 Crore is projected against NTPC source in the power purchase cost in the table no.17 of the petition indicates power drawl of 589.50 MU from Bongaigaon project. Commission has not approved the power procurement from Bongaigaon NTPC plant in the business plan for MYT control period.

But the Licensee has filed in the petition for procurement of Energy for MYT control period from NTPC Bongaigaon against which the unit cost is ranging at Rs.6.66 ps/kwh to Rs.7.35 ps/kwh during the control period.

The Licensee has not been drawing Power from NTPC Bongaigoan Project during FY 2018-19 to FY 2020-21.

The licensee has submitted first half year actual power purchase cost from NTPC sources towards fixed charges at Rs.106.77 Crore which includes Rs.33.53 Crore surcharge which shall not be considered for determination of ARR for FY 2021-22. The additional information/data submitted by the licensee does not reveal purchase of power from NTPC Bongaigaon plant.

The licensee has submitted revised energy balance on 12.02.2021 which includes power procurement from NTPC Bongaigaon for 589.50 MU.

Commission considers the Revised Energy balance for control period taking into account the power drawl from NTPC Bongaigoan.

# <u>NHPC</u>

In the additional information filed by the licensee for the first half year of FY 2020-21 does not disclose purchase price from NHPC Loktak. The last procurement from this project was approved in FY 2015-16 (True up) at Rs.1.39 ps/kwh. The Procurement projected for FY 2021-22 at 40.28 MU considered the unit rate escalated at 5% year on year would cost Rs.7.45 Crore at Rs.1.85 ps/kwh for FY 2021-22.

# **NEEPCO**

The proposed procurement from **Pare** and **Kemeng** plants of **NEEPCO** at Rs.5.52 ps/kwh and Rs.4.14 ps/kwh respectively seems to be exorbitant. Licensee shall ensure merit order procurement more consciously from these plants. The first half year power purchase cost projected in the additional information filed on 29<sup>th</sup> January 2021 is nearly matching with the petition figures. Free power from NEEPCO considered at 65 MU.

# **OTPC Pallatana**

The projected power purchase cost from OTPC Pallatana for 436.79 MU is considered for Rs.146.31 Crore excluding supplementary bills amount for Rs.0.22 Crore for determination of tariff.

# Solar Sources

The licensee has projected procurement of energy from **Solar Sources** for 39.42 MU in order to meet the RPO obligation. Commission considers the proposal for the control period.

# Other Sources

The Meghalaya state had received sufficient rainfall in the previous season and surplus of Energy more than 600 MU's is available for FY 2021-22. MePDCL may be able to negotiate the demand of Meghalaya state.

Accordingly, the Commission approves the Power Purchase cost for the Control period FY 2021-22, FY 2022-23 & FY 2023-24 provisionally as shown in the tables below:

Table 5.16 :	Power	Purchase	Cost approved	l for FY	2021-22
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(Rs.Crore)	)
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			Variable				,,,	
SI. No	Source	Energy received (MU)	Variable Cost per Unit (Rs/KWH)	Total Variable Cost	Total Fixed Cost	Supplementary Amount	Total Cost	Unit Cost (Rs. / KWH)
1	MePGCL	1227.29					157.18	1.28
	a) Umiam Stage-I HEP	114.61	0.71	8.14	8.14		16.28	1.42
	b) Umiam Stage-II HEP	45.45	0.99	4.52	4.52		9.04	1.99
	c) Umiam Stage-III HEP	137.33	0.99	13.57	13.57		27.14	1.98
	d) Umiam Stage-IV HEP	203.90	0.67	13.57	13.57		27.14	1.33
	e) Sonapani	4.94	0.69	0.34	0.34		0.68	1.38
	f) Umtru HEP (Old)	0.00					0.00	-
	g) Myntdu-Leishka HEP	478.71	0.59	28.88	28.88		57.76	1.19
	h) New Umtru HEP	231.48	0.39	9.17	9.17		18.34	0.78
	i) Lakroh HEP	10.87	0.37	0.40	0.40		0.80	0.74
	j) Ganol HEP							
2	NTPC	589.50					369.57	
	a) Farakka	0					0	
	b) Kahalgaon I	0					0	
	c) Khalgaon II	0					0	
	d) Talcher	0					0	
	e) Bongaigoan	589.50	3.79	223.57	146.00		369.57	6.27
3	NHPC	40.28					7.45	1.85
	a) Loktak HEP	40.28	1.85	7.45			7.45	1.85
4	NEEPCO	723.70					201.60	2.79
	a) Kopili Stage-I	82.23	0.64	5.28	5.37		10.65	1.30
	b) Kopili Stage-II	8.48	0.93	0.79	0.54		1.33	1.57
	c) Khandong HEP	17.53	0.92	1.61	2.21		3.82	2.18
	d) Rangandai HEP	131.25	1.13	14.78	19.85		34.63	2.64
	e) Doyang HEP	23.65	3.01	7.12	7.00		14.12	5.97
	f) AGBPP	187.65	2.35	0.00	42.32		42.32	2.26
	g) AGTPP C-Cycle	119.00	2.76	32.89	19.10		51.99	4.37
	h) Pare	42.92	5.51	23.66	0.04		23.70	5.52
	i) Kameng	45.99					19.04	4.14
	j) Free Power	65.00						
5	ОТРС	436.79					146.31	
	a) Pallatana	436.79	1.76	77.42	68.89		146.31	3.35
6	Solar Sources	39.42					13.80	3.50
	Total	3056.98					895.91	2.93

The Power Purchase cost considered for determination of ARR and retail tariff for FY 2021-22.

The Petitioner has submitted Power Purchase cost considering the Power procurement from NTPC Bongaigaon project for 589.50 MU which is considered for control period.

# • Quantum of Renewable Energy Purchase Obligation (RPO)

Every obligated entity shall purchase a minimum percentage of its total electricity consumption (in kWh) from renewable energy sources under the renewable purchase obligation during each financial year as specified by the Commission herein.

Commission has notified RPO obligation on 22<sup>nd</sup> October 2018, according to which the minimum percentage was specified as follow; subject to provision indicated in the relevant Regulations of the Commission.

YEAR	Minimum quantum of purchase (%)from renewable energy sources (kWh)							
	SOLAR	NON-SOLAR	TOTAL					
2018-19	0.75	3.25	4.00					
2019-20	1.00	4.00	5.00					
2020-21	1.25	4.75	6.00					

Licensee has projected purchase of solar energy at 39.42 MU during the MYT control period.

Commission considers that the licensee has been drawing power from small Hydro Electric Projects of MePGCL and NEEPCO with an installed capacity of up to 25MW to the extent of 109.86 MU during FY 2021-22 which is sufficient to meet the RPO requirement as detailed below

Approved Sales for FY 2021-22 is 1470.79 MU and requirement to procure from Renewable energy sources amounts to 88.25 MU.

# Details of Renewable Energy Purchase during FY 2021-22

Umiam Stage II (20 MW)	45.51 MU
Sonapani (1.5 MW)	5.50 MU
Lakroh (1.5 MW)	11.01 MU
KOPILI-EXT (25 MW)	8.48 MU
Solar	39.42 MU
Total Purchase	109.86 MU

### (Rs.Crore)

		, , , , , , , , , , , , , , , , , , , ,		1		1	(13.01012)		
SI. No	Source	Energy received (MU)	Variable Cost per Unit (Rs/KWH)	Total Variable Cost	Total Fixed Cost	Supplementary Amount	Total Cost	Unit Cost (Rs. / KWH)	
1	MePGCL	1156.16					299.48		
	a) Umiam Stage-I HEP	114.61	0.75	8.55	8.55		17.1	1.49	
	b) Umiam Stage-II HEP	45.45	1.05	4.75	4.75		9.5	2.09	
	c) Umiam Stage-III HEP	0	1.04	0	14.25		14.25		
	d) Umiam Stage-IV HEP	203.9	0.7	14.25	14.25		28.51	1.4	
	e) Sonapani	4.94	0.72	0.36	0.36		0.71	1.44	
	f) Umtru HEP	0	0	0	0		0		
	g) Myntdu-Leishka HEP	478.71	1.99	95.04	95.04		190.08	3.97	
	h) New Umtru HEP	231.48	2.35	54.42	54.42		108.85	4.7	
	i) Lakroh HEP	10.87	2.04	2.21	2.21		4.42		
	j) Ganol HEP	66.2	2.3	15.19	15.19		30.39	4.59	
	m) Auxiliary Consumption								
2	NTPC	589.50					406.32		
	a) Farakka	0					0		
	b) Kahalgaon I	0					0		
	c) Khalgaon II	0					0		
	d) Talcher	0					0		
	e) Bongaigoan	589.5	3.98	234.75	171.57		406.32	6.89	
3	NHPC								
	a) Loktak HEP	40.28	1.98	7.97	7.97		15.94	3.96	
4	NEEPCO	723.70					210.74		
	a) Kopili Stage-I	82.23	0.67	5.54	5.64		11.18	1.36	
	b) Kopili Stage-II	8.48	0.98	0.83	0.56		1.4	1.65	
	c) Khandong HEP	17.53	0.96	1.69	2.32		4.01	2.29	
	d) Rangandai HEP	131.25	1.18	15.52	20.85		36.37	2.77	
	e) Doyang HEP	23.65	3.16	7.47	7.35		14.82	6.27	
	f) AGBPP	187.65	0	0	44.44		44.44	2.37	
	g) AGTPP C-Cycle	119	2.9	34.54	20.05		54.59	4.59	
	h) Pare	42.92	5.79	24.84	0.04		24.89	5.8	
	i) Kameng	45.99					19.04	4.14	
	Free Power	65.00							
5	ОТРС								
	a) Pallatana	436.79	1.86	81.29	72.33	0.23	153.86	3.52	
6	Solar Sources	39.42					13.80	3.5	
	Total	2985.85					1100.14	3.68	

The power purchase cost approved for FY 2022-23 is on provisional basis and subject to correction while issuing Retail tariff order.

### (Rs.Crore)

SI. No	Source	Energy received (MU)	Variable Cost per Unit (Rs/KWH)	Total Variable Cost	Total Fixed Cost	Supplementary Amount	Total Cost	Unit Cost(Rs. / KWH)
1	MePGCL	1156.16					312.08	
	a) Umiam Stage-I HEP	114.61	0.78	8.98	8.98		17.96	1.57
	b) Umiam Stage-II HEP	45.45	1.1	4.99	4.99		9.98	2.2
	c) Umiam Stage-III HEP	0	1.09	0	14.97		14.97	
	d) Umiam Stage-IV HEP	203.9	0.73	14.97	14.97		29.93	1.47
	e) Sonapani	4.94	0.76	0.37	0.37		0.75	1.51
	f) Umtru HEP	0	0	0	0		0	
	g) Myntdu-Leishka HEP	478.71	2.08	99.79	99.79		199.59	4.17
	h) New Umtru HEP	231.48	2.47	57.15	57.14		114.29	4.94
	i) Lakroh HEP	10.87	2.14	2.32	2.32		4.64	
	j) Ganol HEP	66.2	2.3	15.19	15.19		30.39	4.59
	m) Auxiliary Consumption							
2	NTPC	589.50					426.64	
	a) Farakka	0					0	
	b) Kahalgaon I	0					0	
	c) Khalgaon II	0					0	
	d) Talcher	0					0	
	e) Bongaigoan	589.50	4.18	246.49	180.15		426.64	7.23
3	NHPC							
	a) Loktak HEP	40.28	2.08	8.37	8.37		16.74	4.16
4	NEEPCO	723.70					220.31	
	a) Kopili Stage-I	82.23	0.71	5.82	5.92		11.74	1.43
	b) Kopili Stage-II	8.48	1.03	0.88	0.59		1.47	1.73
	c) Khandong HEP	17.53	1.01	1.78	2.44		4.21	2.4
	d) Rangandai HEP	131.25	1.24	16.3	21.89		38.18	2.91
	e) Doyang HEP	23.65	3.32	7.85	7.71		15.56	6.58
	f) AGBPP	187.65	0	0	46.66		46.66	2.49
	g) AGTPP C-Cycle	119	3.05	36.26	21.06		57.32	4.82
	h) Pare	42.92	6.08	26.08	0.04		26.13	6.09
	i) Kameng	45.99	4.14				19.04	4.14
	Free Power	65.00						
5	ОТРС							
	a) Pallatana	436.79	1.95	85.36	75.95		161.31	3.7
6	Solar Sources	39.42					13.80	3.5
	Total	2985.85					1150.88	3.85

The power purchase cost approved for FY 2023-24 is on provisional basis and subject to correction while issuing Retail tariff order.

### 5.11 Energy Balance

### **Petitioner's Submission**

The Petitioner has submitted revised Energy Balance for FY 2021-22 and for the Control Period i.e., from FY 2021-22 to FY 2023-24 on 12<sup>th</sup> February 2021 as detailed in the table Below.

SI No	Particulars	Calculation	FY 2021-22	FY 2022-23	FY 2023-24
1	Energy purchase from Eastern Region (ER)	А	0	0	0
2	Inter-State Transmission Loss in ER	В	1.80%	1.80%	1.80%
3	Net Power purchased from ER	C=A(1-B%)	0	0	0
4	Power purchase from North Eastern Region (NER)	D	1829.69	1829.69	1829.69
5	Inter-State Transmission Loss in NER	E	3%	3%	3%
6	Net Power available at state bus from external sources on long term	F=(C+D)*(1-E%)	1774.8	1774.8	1774.8
7	Power purchase from generating stations within the state	G	1227.29	1156.16	1156.16
8	Power purchase from other sources	н	0	0	0
9	Total energy available	I=F+G+H	3002.09	2930.96	2930.96
10	Intra state transmission loss at 4%	J=I*4%	120.08	117.24	117.24
11	Total availability at MePDCL periphery	K=I-J	2882.01	2813.72	2813.72
12	Power to be sold to consumers within the state (including ASEB)	L	1470.79	1547.38	1627.37
13	Distribution Loss (%)	М	12%	12%	12%
14	Net Power requirement at MePDCL periphery for sale of power within the state	N=L/(1-M%)	1671.35	1758.39	1849.28
15	Surplus of power ( for sale outside state)	O=K-N	1210.66	1055.33	964.44

## **Commission's Analysis**

The licensee shall ensure sale of surplus energy for not less than the weighted average purchase cost. The ARR shall be adjusted after deducting the cost of surplus energy.

The Petitioner MePDCL has submitted a Revised Energy Balance statement in the letter no. MePDCL/SE (RA)/BP/FY 2021-24/2020-21/54 dated 12<sup>th</sup> February 2021 wherein it is projected an addition of 589.50 MU Power procurement from NTPC Bongaigaon project during the 3<sup>rd</sup> MYT Control period FY 2021-22 to FY 2023-24.

The Power purchase cost on account of NTPC Bongaigaon Energy projected to be Rs.386.97 Crore excluding supplementary bills for Rs.5.84 Crore as against Rs.146.00 Crore considered by the Commission as fixed cost. The average cost shall be at Rs. 6.56/Kwh which is very high.

The Commission has approved the energy balance based on the approved energy sales, T&D losses as approved in the Business Plan, and energy availability from various sources including NTPC Bongaigaon in order to facilitate the licensee shall not resort to any load shedding for the 3<sup>rd</sup> MYT Control period FY 2021-22 to FY 2023-24 as depicted in the table below.

			1		(1110)
SI No	Particulars	Calculation	2021-22	2022-23	2023-24
1	Energy purchase from Eastern Region (ER)	А	0	0	0
2	Inter-State Transmission Loss in ER	В	1.80%	1.80%	1.80%
3	Net Power purchased from ER	C=A(1-B%)	0	0	0
4	Power purchase from North Eastern Region (NER)	D	1790.27	1790.27	1790.27
5	Inter-State Transmission Loss in NER	E	3%	3%	3%
6	Net Power available at state bus from external sourcess on long term	F=(C+D)*(1-E%)	1736.56	1736.56	1736.56
7	Power purchase from generating stations within the state	G	1266.71	1195.58	1195.58
8	Power purchase from other sources	н	0	0	0
9	Total energy available	I=F+G+H	3003.27	2932.14	2932.14
10	Intra state transmission loss at 4%	J=I*4%	120.13	117.29	117.29
11	Total availability at MePDCL periphery	K=I-J	2883.14	2814.85	2814.85
12	Power to be sold to consumers within the state (including ASEB)	L	1470.79	1547.38	1627.37
13	Distribution Loss (%)	М	12%	12%	12%
14	Net Power requirement at MePDCL periphery for sale of power within the state	N=L/(1-M%)	1671.35	1758.39	1849.28
15	Surplus of power	O=K-N	1211.79	1056.46	965.57
16	Grossed up at 4%	P=O/TR Loss(4%)	1262.28	1100.48	1005.80

Commission approves Revised Energy Balance for 3<sup>rd</sup> MYT Control period.

(MU)

## 5.12 Transmission Charges

## **Petitioner's Submission**

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.

The inter-state transmission charges payable to PGCIL has been projected based on the existing actual per unit rates (average of FY 2018-19 and FY 2019-20 rates) escalated by 5 % on an annual basis and quantum of power to be purchased from the Central Generating Stations (CGS) as per the approved Business Plan petition.

The intra and inter-state transmission charges projected for 3<sup>rd</sup> control period is as shown in the following table below:

### Table 5.21 : Transmission Charges Projected for the Control Period

(Rs.Crore)

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Transmission Charges (PGCIL)	59.65	81.92	59.82	62.81	68.38	71.80
Transmission Charges (MePTCL)	66.84	98.64	52.45	156.43	195.91	209.62

### **Commission's Analysis**

The Commission has considered the transmission charges payable to MePTCL as approved for the 3<sup>rd</sup> control period FY 2021-22 to FY 2023-24

Commission considers the PGCIL charges as projected by MePGCL for 3<sup>rd</sup> MYT Control period.

The intra-state transmission charges payable to MePTCL and the inter-state transmission charges payable to PGCIL are approved as detailed in the table below:

# Table 5.22 : Transmission Charges approved for the Control Period FY 2021-22, FY 2022-23 andFY 2023-24

				(Rs. Crore)
Sl. No	Particulars	FY 2021-22	FY 2022-23	FY 2023-24
1	MePTCL	52.44	55.06	57.81
2	PGCIL	62.81	68.38	71.80
	Total	115.25	123.44	129.61

Commission approves the transmission charges for 3<sup>rd</sup> MYT Control period FY 2021-22, FY 2022-23 and FY 2023-24 at Rs.115.25 Crore, Rs.123.44 Crore, and Rs.129.61 Crore respectively.

## 5.13 GFA and Capex Capitalization

### **Petitioner' submission**

### 5.13.1 Capital Expenditure

In the approved Business Plan Order, the Commission has approved the year wise capital expenditure for the control period for the licensee. The same is given below along with the capex due to additional smart meter works for reference:

### Table 5.23 : Total Capital Expenditure for MePDCL in the Control Period

(Rs. Crore)

Particulars	2020-21	2021-22	2022-23	2023-24	Total
Total Capex Approved in the Business Plan Order dated 09.10.2020	308.11	424.65	441.64	429.60	1604.00
Total Capex under Additional Investments Proposed (Smart Meter works): Section 3 of the Petition and Annexure F	50.00	149.15			199.15
Total Capex for Licensee in the Control Period	358.11	573.80	441.64	429.60	1803.15

The Loan, Equity and Grant Portion of the capex for the next control period is given below:

### Table 5.24 : Grant, Loan and Equity Portion of the Capital Expenditure

(Rs. Crore)

Capital Expenditure Plan	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
Loan	50.3	149.9	0.7	0.7	201.71
Grant/Consumer					1601.44
Contribution	307.8	423.9	440.9	428.9	1001.44
Equity					0.00

The capex components shown above has been used in the subsequent sections for calculation of different components of tariff.

## 5.13.2 Capitalization

In the approved Business Plan Order, the Commission has approved the year wise capitalization for the control period for the licensee. The same is given below along with the capitalization due to additional smart meter works for reference:

(Rs. Crore)

Particulars	2020-21	2021-22	2022-23	2023-24	Total
Total Capitalization Approved in the Business Plan Order dated 09.10.2020	961.82	153.42	52.23	1232.73	2400.2
Total Capitalization under Additional Investments Section 3 of the Petition and Annexure F		199.15			199.15
Total Capex for Licensee in the Control Period	961.82	352.57	52.23	1232.73	2599.35

The Loan, Equity and Grant Portion of the capitalization for the next control period is given below:

 Table 5.26 : Grant, Loan and Equity Portion of Asset Capitalized in the Control Period

 (Rs.Crore)

Capitalization	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
Grant Portion of Capitalization	960.12	153.42	52.23	1230.50	2396.27
Equity Portion of Capitalization					0.00
Loan Portion of Capitalization	1.70	199.15	0.00	2.23	203.08
Total	961.82	352.57	52.23	1232.73	2599.35

The grant portion of capitalization has been used for calculation of amortization element in the depreciation head.

# 5.13.3 Asset Base for the Licensee

From FY 2018-19, the Licensee has implemented IND AS Accounting in line with Ministry of Corporate Affairs (MCA) norms. The IND AS are basically standards that have been harmonized with the IFRS to make reporting by Indian companies more in line with the global standards.

# Impact of IND AS on Asset Value in Accounts:

IND AS 101 permits a first-time adopter to elect to continue with the carrying value for all of its property, plant and equipment as recognized in the financial statement as at the date of transition to Ind AS, measured as per the previous GAAP and use that as its deemed cost as at the date of transition. On transition to Ind AS, the company had elected during the Financial Year 2016-17 to continue with the carrying value of its property, plant and equipment recognized as at 1st of April, 2015 measured as per the previous GAAP and used that carrying value as the deemed cost of the property, plant and equipment for furtherance of recognition and presentation thereon. Thus, the asset value in Note 2 "PROPERTY, PLANT AND EQUIPMENT" for FY 2018-19 and FY 2019-20 accounts is the deemed asset value.

However, components like depreciation is calculated on the historical value of the asset which is the Gross Fixed Asset value i.e. GFA (as per MSERC MYT Regulations, 2014). The historical asset value of asset is the asset base without IND AS adjustment and the same is shown in Note 2: PROPERTY, PLANT AND EQUIPMENT Without IND AS Adjustment portion of the FY 2019-20 accounts.

Based on the capitalization schedule of the licensee (used for addition of asset in the control period FY 2021-22 to FY 2023-24) and asset as in FY 2018-19 and FY 2019-20 accounts (non IND-AS adjusted), the total asset base for the licensee is given below:

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Opening GFA	438.94	442.83	478.97	1440.79	1793.36	1845.59
Additions during the year (Based on the capitalization schedule above)	3.88	36.15	961.82	352.57	52.23	1232.73
Retirements during the year	0.00	0.00	0.00	0.00	0.00	0.00
Closing GFA	442.83	478.97	1440.79	1793.36	1845.59	3078.32

Table 5.27 : Total Asset Base of MePDCL during the Control Period

# **Commission's Analysis**

Licensee has yet to file the petitions for True up for FY 2018-19 and FY 2019-20.

The Claim by MePDCL as to implementation of IND AS in line with ministry of corporate affairs (MCA) norms shall not be considered for now.

The capital expenditure and fixed assets shall be disclosed at Historical cost and no revaluation of fixed assets shall be permitted as per the commercial accounting

(Rs.Crore)

system for state electricity utilities as notified by ministry of energy, Govt. of India Rules 1985.

The Licensee has filed petition for Review of the True up order dated 13.10.2020 for FY 2017-18 wherein MePDCL has claimed GFA addition for Rs.92.07 Crore which was disallowed in the True up orders for want of the details of the project wise and scheme wise capitalization.

MePDCL has submitted the details as called for and the commission has considered the capitalization in the Review orders.

Accordingly GFA and capital cost of MePDCL is considered for ARR and determination of Tariff as depicted in the table below.

(Rs.Crore)

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Estimated)	FY 2022-23 (Estimated)	FY 2023-24 (Estimated)
Opening GFA	441.25	445.13	481.28	1443.10	1596.52	1648.75
Additions during the year (Based on the capitalization schedule above)	3.88	36.15	961.82	153.42	52.23	1232.73
Retirements during the year	0.00	0.00	0.00	0.00	0.00	0.00
Closing GFA	445.13	481.28	1443.10	1596.52	1648.75	2881.48

The funding of Capital investment approved in the business plan indicates 99.23% as grant, only Rs.3.92 Crore ie., 0.77% has to be met through loan as depicted in the table below.

## Table 5.29 : Source of Funding

(Rs.Crore)

				( )
Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Approved Out lay	962.86	153.42	52.23	1232.73
Capitalization	961.82	153.42	52.23	1232.73
Grant	961.17	153.42	52.23	1230.50
Loan	1.69	0.00	0.00	2.23

The Project wise scheme wise Approved Capital Investment in the business plan for Control Period is as appended below

### Capital investment plan for FY 2020-21 and for the MYT control period FY 2021-22 to FY 2023-24

(Rs. crore)

			s	ource	of func	ling	FY 20	020-21	FY 20	)21-22	FY 20	22-23	FY 2	023-24	Tot	al
S1. No.	Name of the Scheme	Approved outlay	Grant	Equity	Loan	Total	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation
1	2	3	4	5	6	7 = (4+5+6)	8	9	10	11	12	13	14	15	18= (8+10+12+14+16)	19= (9+11+13+15+17)
Α	Ongoing Schemes															
1	Saubhagya works	657.06	657.06			657.06	173.00	657.06							173.00	657.06
2	IPDS Phase-I (Pkg-Vi & VII)	20.89	19.85		1.04	20.89	6.27	20.89							6.27	20.89
	Additional Special Plan Assistance (ASPA)															
3	Construction of 33/11 kV SS, Rongjeng	3.50	3.50			3.50	1.75		1.75	3.50					3.50	3.50
4	Construction of 33/11 kV SS,Praharinagar with 33/11 kV lines	2.29	2.29			2.29	1.15		1.15	2.29					2.29	2.29
	NEC															
5	33 kV SC line from Rongkhon to Dadengre	5.70	5.70			5.70	2.64	5.70							2.64	5.70
	DDUGJY- I Village Electrification															
6	i. Electrification of Un- electrified village by Grid solution = 261 Nos.															
7	ii. Electrification of Un- electrified village by Off- Grid solution = 52 Nos.															
8	iii. Electrification of Grid PE/UED = 200 Nos.	116.65	116.65			116.65	26.75	116.65							26.75	116.65
	DDUGJY-II Village Electrification															
9	i. Intensification of partially electrified villages = 558 Nos.	89.85	89.85			89.85	14.25	89.85							14.25	89.85

			S	ource	of fund	ling	FY 20	)20-21	FY 20	021-22	FY 20	22-23	FY 2	023-24	Tot	al
S1. No.	Name of the Scheme	Approved outlay	Grant	Equity	Loan	Total	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation
	DDUGJY-II Systems Strengthening															
10	i. Installation and commissioning of 9 Nos. 33/11KV ,2.5 MVA Sub- stations with a total capacity of 22.5 MVA.															
11	ii. Augmentation of 2Nos. 33/11KV Substations with a total capacity of 3.4 MVA.	54.80	54.80			54.80	15.55	54.80							15.55	54.80
	DDUGJY-II Systems Metering															
12	i. Installation of 1020 Nos. of DT Metering															
13	ii. Installation of 45 Nos. 33 KV Feeder Metering.															
14	iii. Installation of 162 Nos. 11KV Feeder Metering.	15.24	15.24			15.24	6.74	15.24							6.74	15.24
	IBBFL Deposit Works															
15	i. Installation of 33/0.4 KV and 11/0.4 KV Sub-station =105 Nos.															
16	ii. Installation of 33 KV line = 300 Ckt km.															
17	iii. Installation of 11 KV line = 520 Ckt km.	147.63	147.63			147.63	59.20			147.63					59.20	147.63
18	iv. Installation of 33/11 KV Substation = 11Nos.with total capacity of 13800 KVA.															
	Sub-total -A	1113.61	1112.57	0	1.04	1113.61	307.30	960.19	2.90	153.42	0	0	0	0	310.19	1113.61
В	Upcoming/New Schemes															
	ADB funded schemes															

			S	ource	of fund	ling	FY 20	)20-21	FY 20	)21-22	FY 20	22-23	FY 2	023-24	Tot	al
S1. No.	Name of the Scheme	Approved outlay	Grant	Equity	Loan	Total	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation
	33/11 KV Sub-Stations															
19	i. Construction of 24 nos. new 33/11 KV sub-stations to provide capacity infeed to meetexisting and future demand requirements- 11nos in Central Circle, 4 nos. in West Garo, 9															
	nos. in East Garo Circle.															
20	ii. Capacity Augmentation of existing 33/11 KV Substations - 15 nos.															
21	<ul> <li>iii. Renovation and modernization of 6 nos. of 33/11 substations to provide improved reliability, safety and better life cycle management.</li> </ul>															
22	iv. Replacement of drop-out fuses with auto re-closers at 66 nos. 33KV and 11KV feeders terminations in substations without control room, for safetyof utility personnel, reliability and operational flexibility.	145.00	145.00			145.00			49.00		48.00		48.00	145.00	145.00	145.00
23	v. 33 KV Bay Extension															
24	33KV Transmission lines i. Replacement of overhead lines in thick vegetation areaswith 57 Ckms of covered conductors															

			S	ource	of fund	ling	FY 20	)20-21	FY 20	)21-22	FY 20	22-23	FY 2	023-24	Tot	al
S1. No.	Name of the Scheme	Approved outlay	Grant	Equity	Loan	Total	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation
25	ii. New 33KV Lines on mini tower structure with wolf conductor to suit difficult ruralterrain, thick vegetation areas and high load industrial areas- approximately 295 Ckms.															
26	iii. Construction of 33KV new lines approx. 400 Ckms to connect proposed 33/11 KV new sub-stations (NERPSIP and projects identified in this proposal).															
27	iv. Re-conductoring of existing 33KV lines approx. 225 Ckms toconnect proposed new 33/11 KV Sub-stations (NERPSIP and projects identified in this proposal)	252.00	252.00			252.00			81.00		81.00		90.00	252.00	252.00	252.00
28	11KV & LT Distribution Lines i. Construction of 674 Ckms of 11KV new lines to establish newfeeders from proposed 33/11LV Substations and to connect with the proposed 11/0.4 substations.(NERPSIP and projects identified in this proposal)	318.00	318.00			318.00			106.00		106.00		106.00	318.00	318.00	318.00

			S	ource	of fund	ling	FY 20	)20-21	FY 20	)21-22	FY 20	22-23	FY 2	023-24	Tot	al
Sl. No.	Name of the Scheme	Approved outlay	Grant	Equity	Loan	Total	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation
29	ii.Re-conductoring of 11 KV existing lines approx. 278 Ckmsto connect the proposed new substations (NERPSIP and projects identified in this proposal)															
30	iii. Replacement of rusted/damaged 11KV GI & PSC poles in identified sites.															
31	iv. Construction of new 181 Ckms of 3-PH, 4-WIRE LT lines on WEASEL conductor.															
32	v. Augmentation of 135 Ckms 1ph-2 wire to 3 Ph-4 wire lineson Weasel & Squirrel CONDUCTOR															
33	vi. Conversion of 1050 Ckms of LT overhead lines to ABC using 3cx95,3cx70,1cx50 sqmm to prevent theft & leakages															
34	vii. Replacement of street lightswith solar lamps, LED lamps etc. in selected locations															
	Distribution Transformer	211.00	211.00			211.00			70.00		70.00		70.00	211.00	210.00	211.00
35	i. Installation of 301 Nos. of newTransformers to cater to demand developments															
36	ii. Capacity augmentation of 94Nos. Distribution Transformers (DTs)															

			S	ource	of fund	ling	FY 20	)20-21	FY 20	)21-22	FY 20	22-23	FY 2	023-24	Tot	al
S1. No.	Name of the Scheme	Approved outlay	Grant	Equity	Loan	Total	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation
37	<ul> <li>iii. R&amp;M of DTs</li> <li>(Improvement of the earthing, fencing of all un- fenced DTs, replacement of fusecut-outs by Single-pole MCB, providing Lighting Arrestors in all DTs in West Garo &amp; East Garo circles, Augmentation by Completely Self Protected Transformer and metering of DTs.</li> <li>iv. Renovation &amp; modernization of 1 no. of Transformer Repair Workshop.</li> </ul>															
	Metering i. Replacement of Post paid															
39	meters by Prepaid Meters ii. Replacement of LTCT															
40	meters by Thread-through Meters															
41	iii. R&M of Test bench for MeterTesting Laboratory and procurement of on-site meter testing equipment	123.00	123.00			123.00			41.00		41.00		41.00	123.00	123.00	123.00
42	iv. Technical Survey and Study for Energy Audit															
	IT Enablement in MBC and Customer Service															
43	i. Centralized data Centre including IT module for Spot Billing & Collection, Consumer indexing															

			S	ource	of fund	ing	FY 20	20-21	FY 20	)21-22	FY 20	22-23	FY 2	023-24	Tota	al
Sl. No.	Name of the Scheme	Approved outlay	Grant	Equity	Loan	Total	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation
44	<ul><li>ii. Customer Care Centre across all 34 Sub-Divisions</li><li>iii. Procurement of Software</li></ul>															
45	for Network Simulation studies, GIS Mapping and associated infrastructure															
46	iv. IT Hardware for Billing & Collection Centres	04.00	04.00			04.00			21.00		21.00		<b>22</b> 00	01.00	04.00	24.22
47	v. Preparation of Distribution Master Plan till 2040	94.00	94.00			94.00			31.00		31.00		32.00	94.00	94.00	94.00
48	IPDS i. 33/11KV GIS Sub-station 1No. 2x10 MVA and 1 No.2x5 MVA															
49	ii. 33 KV Line 4.63 km and 11KV Line 2.8 km	44.59	42.36		2.23	44.59			14.86		14.86		14.87	44.59	44.59	44.59
50	iii. ERP Implementation															
51	<b>Rooftop Solar Programme</b> i. Base Installation capacity 6KWP															
52	ii. Total installed as on March 2020 = 198 KWP	1.63	0.98		0.65	1.63	0.82	1.63							0.82	1.63
	State Government Funded Schemes															
	Construction of 33 KV line from Umsong to Patharkhmah,and 33/11KV 1x 2.5 MVASub-Stationat															
53	Patharkhmah along with 11KV Connected feeders	4.91	4.91			4.91			1.96		2.95	4.91			4.91	4.91
54	Data Center for MePDCL	11.72	11.72			11.72			4.69		7.03	11.72			11.72	11.72
	Construction of 33 KV line from Nongpoh to Umden,															

			S	ource	of func	ling	FY 20	)20-21	FY 20	)21-22	FY 20	22-23	FY 2	023-24	Tot	al
Sl. No.	Name of the Scheme	Approved outlay	Grant	Equity	Loan	Total	Capex	Capitalisation								
55	and 33/11KV 1x 2.5 MVASub-Stationat Umden along with 11KV Connected feeders.	6.15	6.15			6.15			2.46		3.69	6.15			6.15	6.15
56	Conversion of 33/11 kV,2.5 MVA DO controlled Substationat Syndai into a manned 33/11kV,5.0 MVA Substation including re- engineering of the11KV line from Lakroh HEP 1.5 MW to Syndai	3.55	3.55			3.55			1.42		2.13	3.55			3.55	3.55
57	Renovation & Modernisationwith Control Room 33/11 kV, 5.0 MVA Substation at Shangpung, along with associated 11 kV line	2.90	2.90			2.90			1.16		1.74	2.90			2.90	2.90
58	33/11 kV System integration with SLDC System in Meghalaya for monitoring the power supply scenario including scheduling and dispatch in cognizance with Indian electricity Code and related CERC Regulations with respect to Real Time availability of power to avoid grid failure across all 132/33 and 33/11 kV Substations in the State.	3.00	3.00			3.00			1.20		1.80	3.00			3.00	3.00

			S	ource	of fund	ing	FY 20	)20-21	FY 20	021-22	FY 20	22-23	FY 2	023-24	Tot	al
S1. No.	Name of the Scheme	Approved outlay	Grant	Equity	Loan	Total	Capex	Capitalisation								
59	Construction of 33 KV line fromUmden to Umlaper, and 33/11KV 1x 2.5 MVA Sub- Station at Umlaper along with 11KV Connected feeders.	6.17	6.17			6.17					2.47		3.70	6.17	6.17	6.17
60	Conversion of 33/11 kV,2.5 MVA DO controlled Substation at Kuliang into a manned 33/11 kV,5 MVA Substation along with 33 KV line to IBFL	2.80	2.80			2.80							1.12		1.12	0.00
61	Construction of 33 KV line from Bhoirymbong to Mawlasnai and 33/11KV 1x 2.5 MVA Sub-Station at Mawlasnai along with 11KV Connected feeders.	6.33	6.33			6.33							2.53		2.53	0.00
62	Renvation, Modernisation forRajabagan 33/11 KV,1x10.0 MVA Substation, Byrnihat	4.45	4.45			4.45							1.78		1.78	0.00
63	Re-Routing and Renovation of 11 KV Nongspung Feeder, Byrnihat Distribution Division, Ri-Bhoi District.	1.17	1.17			1.17					0.47		0.70	1.17	1.17	1.17
64	Construction of 33/11 KV, 2.5 MVA Sub-Station at Nonglang under Mawshynrut Civil Sub- Division, West Khasi Hills.	9.00	9.00			9.00							3.60		3.60	0.00

			S	ource (	of fund	ing	FY 20	)20-21	FY 20	)21-22	FY 20	22-23	FY 2	023-24	Tota	al
S1. No.	Name of the Scheme	Approved outlay	Grant	Equity	Loan	Total	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation
65	Construction of 33 KV line fromPraharinagar to Doldegre 1x5 MVA manned Sub-Station at Doldegre alongwith 11 KV connected feeders	6.30	6.30			6.30					3.00		3.30	6.30	6.30	6.30
66	Augmentation / R&M and phasing out of the old power transformers at Hawakhana(2nos.), Dakopgre(1no.), Dobasipara(1no.), Dalu(2nos.), Williamnagar(1no.) etc	5.00	5.00			5.00			2.50		2.50	5.00			5.00	5.00
67	Renovation/Upgradation of 33KV Lines on covered conductor	5.00	5.00			5.00			2.50		2.50	5.00			5.00	5.00
68 69	Replacement of 33 kV poles by Tower Structures, i.e. all thick vegetation areas.	5.00	5.00 5.00			5.00			2.50		2.50 2.50	5.00	2.50	5.00	5.00	5.00
70	Augmentation / R&M of DT's Replacement of 11 KV conductor with covered conductor	5.00	5.00			5.00			2.50		2.50	5.00			5.00	5.00
71	Replacement of of LT fromweasel/ Raaccoon with ABC Conductor (250)KM	18.00	18.00			18.00			6.00		7.00		5.00	18.00	18.00	18.00
72	Replacement of all 7.5 mtr poles to 8 .0 mtr and 8.0 mtr poles to 9.5 mtr poles (8.0mt- 1300 nos./ 9.5 mt-2450 nos)	8.50	8.50			8.50					5.00		3.50	8.50	8.50	8.50
	Sub-total - B Grand Total	1309.17 2422.78	1306.29 2418.86	0 0.00	2.88 3.92	1309.17 2422.78	0.82 308.11	1.63 961.82	421.75 424.65	0 153.42	441.64 441.64	52.23 52.23	429.60 429.60	1232.73 1232.73	1293.81 1604.00	1286.59 2400.20

	Project Details						Proje	Proje		SOURCE OF FINANCING FOR SCHEME					
				Total capital expenditure	Project	Projec t	ct outla	ct outla		De Comp					
Sl. No.	Name of Scheme	Project Start Date(DD- MM-YY)	Project Completion date (DD- MM-YY)	approved by MSERC/ Govt/ DPR/ FI(INR Cr)	outlay in FY2020-21 (INR Cr)	outlay in FY 2021- 22 (IN	yin FY 2022- 23 (IN	yin FY 2023- 24 (IN	Equity compo nent	Loan amo unt (INR Cr)	Loan source	Subsid ies/ grants	Consum er Contrib ution compon		
						R Cr)	R Cr)	R Cr)		Loan - 1	Loan -1	compo nent	ent		
1	Saubhagya Works	Dec-18	Dec-20	657.06	173							657.06			
a)	Eastern Zone Over all Villages (1807 No's11 Kv Line(445 Ckm) DTR(25 KVA=296 No's 63 KVA= 193 No's 100 KVA= 102 No's 250 KVA= 6 No's) LT Line (2432. Ckm)														
b)	Western Zone Over all Villages (3013 Nos.)11 Kv Line(664.94 Ckm) DTR(25 KVA=486 Nos. 63 KVA= 232 Nos. 100 KVA= 37 Nos. 250 KVA=4 Nos.) LT Line (2844.74 Ckm)														
2	Integrated Power Development Scheme Phase 1 (Package-VI & VII)	Jan-18	Dec-20	20.9	6.3					1.04		19.85			
3	Western Zone a. 3/11kV sub-station (new) (2Nos.) b. 33/11kV sub-station (capacity addition)(1No.) c. R&M of 33/11kV sub-station (1No.) d. 33 kV new feeder (12.2ckm) e. 11 kV line: New/Reconductoring (33ckm) f. New LT sub-station (13 Nos.) g. LT line: New/ Reconductoring (21.13ckm) h. Solar Roof top panels (48kWp) i. Pre-paid meters (2260No.) Additional Special Plan Assistance														

### a): Details of Ongoing Works for MePDCL spilling into FY 2020-21 (2nd Half) or control period FY 2021-24

	(ASPA)									
a)	Construction of 33/11kV sub-station with 33kV & 11kV lines at Praharinagar	2020-21	2021-22	2.3	1.145	1.145			2.29	
b)	Construction of 33/11kV sub-station at Rongjeng	2020- 21	2021-22	3.5	1.75	1.75			3.50	
4	NEC									
a)	Construction of new 33 kV S/C line from Rongkhon to Dadengre	2016- 17	Dec-20	5.7	2.64				5.70	
5	DDUGJY- I Village Electrification i. Electrification of Un-electrified village byGrid solution = 261 Nos. ii. Electrification of Un-electrified village byOff- Grid solution = 52 Nos. iii. Electrification of Grid PE/UED = 200 Nos.	01.04.2 016	30.09.2020	116.65	26.75				116.65	
6	<b>DDUGJY-II Village Electrification</b> i. Intensification of partially electrified villages = 558 Nos.	01.04.2 018	31.12.2020	89.85	14.25				89.85	
7	DDUGJY-II Systems Strengthening i. Installation and commissioning of 9 Nos. 33/11KV ,2.5 MVA Sub-stations with a totalcapacit of 22.5 MVA. ii. Augumentation of 2Nos. 33/11KV Substations with a total capacity of 3.4 MVA.	01.04.2 018	31.12.2020	54.80	15.55				54.80	
8	DDUGJY-II Systems Metering i. Installation of 1020 Nos. of DT Metering ii. Installation of 45 Nos. 33 KV FeederMetering. iii. Installation of 162 Nos. 11KV Feeder Metering.	01.04.2 019	31.12.2020	15.24	6.74				15.24	
9	IBBFL Deposit Works i. Installation of 33/0.4 KV and 11/0.4 KVSub-station =105 Nos. ii. Installation of 33 KV line = 300 Ckt km. iii. Installation of 11 KV line = 520 Ckt km. iv. Installation of 33/11 KV Substation = 11Nos.with total capacity of 13800 KVA.	01.04.2 018	31.03.2021	147.63	59.2					147.63

## b): Details of proposed schemes for MePDCL spilling in FY 2020-21 (2nd Half) or control period FY 2021-24

	Project Details	Total	Project outlay	Project outlay	Project outlay	Project	SOUF SCHE					
51. No.	Name of Scheme	Project StartDate (DD- MM- YY)	Project Completion date(DD-MM- YY)	capital expend iture project ed	inFY 2020- 21 (Projec ted) in Cr)	in FÝ 2021-22 (Projec ted) in Cr	in FÝ 2022-23 (Projec ted) in Cr	outlay in FY 2023-24 (Projec ted) in Cr	Equit y com p onen t	Debt Co Loan amoun t (INR Cr) Loan -1	mponent Loan sour c e Loan - 1	Capita 1 Subsi dies/ grants comp o nent
1	Distribution Works Under ADB Funding											
a	<ul> <li>33/11 KV Sub-Stations (ADB)</li> <li>i. Construction of 24 nos. new 33/11 KV sub- stationsto provide capacity infeed to meet existing and future demand requirements- 11nos in Central Circle, 4 nos. in West Garo, 9 nos. in East Garo Circle.</li> <li>ii. Capacity Augmentation of existing 33/11 KV Substations -15 nos.</li> <li>iii. Renovation and modernization of 6 nos. of 33/11 substations to provide improved reliability,safety and better life cycle management.</li> <li>iv. Replacement of drop-out fuses with auto re- closers at 66 nos. 33KV and 11KV feeders terminations in substations without control room,for safety of utility personnel, reliability and operational flexibility.</li> <li>v. 33 KV Bay Extension</li> </ul>	01.09.2020	30.09.2023	145		49	48	48				145.00
ь	33KV Transmission lines (ADB) i. Replacement of overhead lines in thick vegetation areas with 57 Ckms of covered conductors ii. New 33KV Lines on mini tower structure with wolfconductor to suit difficult rural terrain, thick vegetation areas and high load industrial areas- approximately 295 Ckms.	01.09.2020	30.09.2023	252		81	81	90				252.00

	Project Details			Total	Project outlay	Project outlay	Project outlay	Project outlay in FY 2023-24 (Projec ted) in Cr	OCHEMIE				
S1. No.	Name of Scheme	Project StartDate (DD- MM- YY)	Project Completion date(DD-MM- YY)		inFY 2020- 21 (Projec ted) in Cr)	in FÝ 2021-22 (Projec ted) in Cr	in FÝ 2022-23 (Projec ted) in Cr	in FY 2023-24 (Projec ted) in	Equit y com p onen t	Debt Co Loan amoun t (INR Cr) Loan -1	Loan sour c	Capita 1 Subsi dies/ grants comp o nent	
	<ul> <li>iii. Construction of 33KV new lines approx. 400 Ckmsto connect proposed 33/11 KV new sub- stations (NERPSIP and projects identified in this proposal).</li> <li>iv. Re-conductoring of existing 33KV lines approx. 225 Ckms to connect proposed new 33/11 KV Sub-stations (NERPSIP and projects identified in this proposal)</li> </ul>												
с	11KV & LT Distribution Lines (ADB)         i. Construction of 674 Ckms of 11KV new lines to establish new feeders from proposed 33/11LV         Substations and to connect with the proposed 11/0.4substations.(NERPSIP and projects identified in this proposal)         ii.Re-conductoring of 11 KV existing lines approx. 278Ckms to connect the proposed new substations         (NERPSIP and projects identified in this proposal)         iii.Replacement of rusted/damaged 11KV GI & PSC poles in identified sites.         iv. Construction of new 181 Ckms of 3-PH, 4-WIRE LT lines on WEASEL conductor.         v. Augmentation of 135 Ckms 1ph-2 wire to 3 Ph-4 wire lines on Weasel & Squirrel CONDUCTOR vi. Conversion of 1050 Ckms of LT overhead lines to ABC using 3cx95,3cx70,1cx50 sqmm to prevent theft & leakages	01.09.2020	30.09.2023	318		106	106	106				318.00	
	LED lamps etc. in selected locations Distribution Transformer (ADB)												

	Project Details	1		Total capital	01111037	Project outlay	Project outlay	Project		SOURCE OF FINANCING FOR SCHEME			
Sl. No.	Name of Scheme	Project StartDate (DD- MM- YY)	Project Completion date(DD-MM- YY)	capital expend iture project ed	inFY 2020- 21 (Projec ted) in Cr)	in FÝ 2021-22 (Projec ted) in Cr	in FÝ 2022-23 (Projec ted) in Cr	outlay in FY 2023-24 (Projec ted) in Cr	Equit y com p onen t	Debt Cor Loan amoun t (INR Cr) Loan -1	Loan sour c	Capita 1 Subsi dies/ grants comp o nent	
d	<ul> <li>i. Installation of 301 Nos. of new Transformers to cater to demand developments</li> <li>ii. Capacity augmentation of 94 Nos. Distribution Transformers (DTs)</li> <li>iii. R&amp;M of DTs (Improvement of the earthing, fencing of all un-fenced DTs, replacement of fuse cut-outs by Single-pole MCB, providing Lighting Arrestors in all DTs in West Garo &amp; East Garo circles, Augmentation by Completely Self Protected Transformer and metering of DTs.</li> <li>iv.Renovation &amp; modernization of 1 no. of Transformer Repair Workshop.</li> </ul>	01.09.2020	30.09.2023	211		70	70	70				211.00	
e	Metering (ADB)         i. Replacement of Post paid meters by Prepaid Meters         ii. Replacement of LTCT meters by Thread-through Meters         iii. R&M of Test bench for Meter Testing Laboratory         and procurement of on-site meter testing equipment         iv. Technical Survey and Study for Energy Audit	01.09.2020	30.09.2023	123		41	41	41				123.00	
f	IT Enablement in MBC and Customer Service (ADB) i. Centralized data Centre including IT module for Spot Billing & Collection, Consumer indexing ii. Customer Care Centre across all 34 Sub- Divisions iii. Procurement of Software for Network Simulation studies, GIS Mapping and associated infrastructure	01.09.2020	30.09.2023	94		31	31	32				94.00	

	Project Details		1	Total	Total capital	outlay	Project outlay	Project outlay		SOURCE OF FINANCING SCHEME Debt Component			
51. No.	Name of Scheme	Project StartDate (DD- MM- YY)	Project Completion date(DD-MM- YY)	capital expend iture project ed	inFY 2020- 21 (Projec ted) in Cr)	in FÝ 2021-22 (Projec ted) in Cr	in FÝ 2022-23 (Projec ted) in Cr	in FY 2023-24 (Projec ted) in Cr	Equit y com p onen t	Debt Co Loan amoun t (INR Cr) Loan -1	Loan sour c	Capita 1 Subsi dies/ grants comp o nent	
	iv. IT Hardware for Billing & Collection Centres v. Preparation of Distribution Master Plan till 2040												
2	IPDS i. 33/11KV GIS Sub-station 1No. 2x10 MVA and 1No.2x5 MVA ii. 33 KV Line 4.63 km and 11KV Line 2.8 km iii. ERP Implementation	01.10.2020	31.10.2023	44.59		14.86	14.86	14.86		2.23		42.36	
3	Rooftop Solar Programme i. Base Installation capacity 6KWP ii. Total installed as on March 2020 = 198 KWP	01.03.2019	31.03.2021	1.63	0.815					0.652		0.98	
4	State Government Funded Schemes												
a	Construction of 33 KV line from Umsong to Patharkhmah, and 33/11KV 1x 2.5 MVASub- Station at	2021-22	2022-23	4.91		1.96	2.95					4.91	
b	Patharkhmah along with 11KV Connected feeders Data Center for MePDCL	2021-22	2022-23	11.72		4.69	7.03					11.72	
c	Construction of 33 KV line from Nongpoh to Umden, and 33/11KV 1x 2.5 MVASub-Station at Umden along with 11KV Connected feeders.	2021-22	2022-23	6.15		2.46	3.69					6.15	
d	Conversion of 33/11 kV,2.5 MVA DO controlled Substation at Syndai into a manned 33/11 kV,5.0 MVA Substation including re-engineering of the 11KV line from Lakroh HEP 1.5 MW to Syndai	2021-22	2022-23	3.55		1.42	2.13					3.55	
e	Renovation & Modernisation with Control Room 33/11 kV, 5.0 MVA Substation at Shangpung, along with associated 11 kV line	2021-22	2022-23	2.90		1.16	1.74					2.90	
f	33/11 kV System integration with SLDC System in Meghalaya for montoring the power supply sceneraio including scheduling and dispatch in cognizane with Indian electricity Code and related	2021-22	2022-23	3.00		1.20	1.80					3.00	

	Project Details		1	Total	Project outlay	Project outlay in FY 2021-22 (Projec ted) in Cr	Project outlay	Project	SOUR SCHE			
Sl. No.	Name of Scheme	Project StartDate (DD- MM- YY)	Project Completion date(DD-MM- YY)	capital expend iture project ed	inFY 2020- 21 (Projec ted) in Cr)		in FÝ 2022-23 (Projec ted) in Cr	outlay in FY 2023-24 (Projec ted) in Cr	Equit y com p onen t	Debt Co Loan amoun t (INR Cr) Loan -1	Loan sour c	Capita 1 Subsi dies/ grants comp 0 nent
	CERC Regulations with respect to Real Time availability of power to avoid grid failure across all 132/33 and 33/11 kV Substations in the State.											
g	Construction of 33 KV line from Umden to Umlaper, and 33/11KV 1x 2.5 MVA Sub-Station at Umlaper along with 11KV Connected feeders.	2022-23	2023-24	6.17			2.47	3.70				6.17
h	Conversion of 33/11 kV,2.5 MVA DO controlled Substation at Kuliang into a manned 33/11 kV,5 MVA Substation along with 33 KV line to IBFL	2023-24	2024-25	2.80				1.12				2.80
i	Construction of 33 KV line from Bhoirymbong to Mawlasnai and 33/11KV 1x 2.5 MVA Sub-Station at Mawlasnai along with 11KV Connected feeders.	2023-24	2024-25	6.33				2.53				6.33
j	Renvation, Modernisation for Rajabagan 33/11 KV,1x10.0 MVA Substation, Byrnihat	2023-24	2024-25	4.45				1.78				4.45
k	Re-Routing and Renovation of 11 KV NongspungFeeder, Byrnihat Distribution Division, Ri-Bhoi District.	2022-23	2023-24	1.17			0.47	0.70				1.17
1	Construction of 33/11 KV, 2.5 MVA Sub-Station at Nonglang under Mawshynrut Civil Sub- Division, West Khasi Hills.	2023-24	2024-25	9.00				3.60				9.00
m	Construction of 33 KV line from Praharinagar to Doldegre 1x5 MVA manned Sub-Station at Doldegre alongwith 11 KV connected feeders	2022-23	2023-24	6.30			3.00	3.30				6.30
n	Augmentation / R&M and phasing out of the oldpower transformers at Hawakhana(2nos.), Dakopgre(1 no.), Dobasipara(1no.), Dalu(2nos.),	2021-22	2022-23	5.00		2.50	2.50					5.00

	Project Details			Total	Project outlay	Project outlay	Project outlay	Project	SOUR SCHE			
51. No.	Name of Scheme	Project StartDate (DD- MM- YY)	Project Completion date(DD-MM- YY)	capital expend iture project ed	inFY 2020- 21 (Projec ted) in Cr)	in FY 2021-22 (Projec ted) in Cr	in FY 2022-23 (Projec ted) in Cr	outlay in FY 2023-24 (Projec ted) in Cr	Equit y com p onen t	Debt Con Loan amoun t (INR Cr) Loan -1	Loan sour c	Capita I Subsi dies/ grants comp o nent
	Williamnagar(1no.) etc											
0	Renovation/Upgradation of 33 KV Lines on covered conductor	2021-22	2022-23	5.00		2.50	2.50					5.00
0	Replacement of 33 kV poles by Tower Structures, i.e. all thick vegetation areas.	2022-23	2023-24	5.00			2.50	2.50				5.00
р	Augmentation / R&M of DT's	2021-22	2022-23	5.00		2.50	2.50					5.00
q	Replacement of 11 KV conductor with covered conductor	2021-22	2022-23	5.00		2.50	2.50					5.00
r	Replacement of of LT from weasel/ Raaccoon with ABC Conductor (250)KM	2021-22	2023-24	18.00		6.00	7.00	5.00				18.00
s	Replacement of all 7.5 mtr poles to 8.0 mtr and 8.0 mtr poles to 9.5 mtr poles (8.0mt- 1300 nos./ 9.5 mt-2450 nos)	2022-23	2023-24	8.50			5.00	3.50				8.50

## 5.14 Employee Expenses

## Petitioner' submission

Before corporatization, Meghalaya State Electricity Board (MeSEB) had a policy for revising pay scale of employees every 5 years. Further, at the time of corporatization in the year 2010, the Management and Employees Association have mutually decided that the earlier policy of revision of pay will continue in future.

As per this policy, MeECL and its subsidiary companies have implemented a revised pay scale of employees effective from January 2020. Supporting documents for Revision of Pay is attached as **Annexure G.** The **employee cost for FY 2020-21** is projected by considering the revised pay of Employees. The following assumptions were taken to arrive at the revised pay of Employees:

 Monthly Employee Cost Implications to MeECL and its subsidiaries due to ROP 2020 is shown in the table below:

Particulars	Amount (In Rs Cr)
Existing Monthly Employee Costs before ROP 2020	23.37
Revised Monthly Employee Costs after ROP 2020	29.68
Total Financial Implications due to ROP 2020	6.31
% Change in Employee Costs due to ROP 2020	27%

 Table 5.30 : Impact of ROP 2020 on Employee Expenses

- Basic Pay: Increment of Average Salary (Combination of Dearness Allowance with Basic Pay of FY 2019-20 and thereafter an increase of 27% to arrive at new basic pay) by 27% due to ROP 2020 as shown in table above and a subsequent increment of 3% (given on a yearly basis to the permanent employees of MePDCL).
- Rest of the Components: Other Components have been calculated as a % of basic pay as the proportion as in FY 2019-20 employee expenses head
- Dearness Allowance: There is no revision in DA component for FY 2020-21 as the State Government has not made any notification on this, so DA component is retained at 1% of basic pay for the year (same DA as applicable during 01.01.2020 when ROP was implemented). Any increase of DA will be adjusted in the true up.
- The yearly recruitment of technical and non-technical staff is not considered for projection of cost and any variation due to it will be adjusted in the true up.

# Employee Cost Projections for FY 2021-22 to FY 2023-24

It is submitted that Employee expenses projections for control period FY 2021-22 to FY 2023-24 have been arrived at using the following assumptions:

- Basic Pay: On a yearly basis the permanent employees of MePDCL are given an increment of 3%.
- Rest of the Components: Other Components have been calculated as a % of basic pay in proportion as in FY 2019-20 employee expenses.
- Dearness Allowance: As per MeECL policy, employees have 2 half-yearly increments based on the price index announced by Labor Departments every year. The Licensee has considered the average half-yearly inflation factor as 2.75% based on the past trends of price inflation considered for DA and is shown below:

	DA % of Basic	DA Increments
Jul-15	2%	
Jan-16	6%	4%
Jul-16	9%	3%
Jan-17	11%	2%
Jul-17	13%	2%
Jan-18	14%	1%
Jul-18	16%	2%
Jan-19	19%	3%
Jul-19	24%	5%
	Average Half Yearly Increment in DA	2.75%
	Average Yearly Increment in DA	2.75% * 2 =5.5%

# Table 5.31 : DA Increments Past Trends

Thus, The DA component for the control period is arrived by adding 5.5% increment yearly for its calculation as a % of basic which implies for FY 2021-22, FY 2022-23 and FY 2023-24, DA component will be 6.5%, 12% and 17.5% as % of basic pay.

 The yearly recruitment of technical and non-technical staff is not considered for projection of cost and any variation due to it will be adjusted in the true up. The discom is adding substantial lines and substations over the next control period due to completion of its scheme works as shown in Table 3 and 5 of the petitions. To undertake O&M of these assets, the licensee will require manpower addition over the next control period, details of which is given in Annexure L. Additional employee expenses due to additional manpower recruitment shall be adjusted in the true up.

Based on the above submissions, the MePDCL employee expenses projected for the control period is as shown below:

		•		•		(	Rs. Crore)
SI	Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
	Salary & Allowances						
1	Basic Pay	70.22	84.21	115.61	119.08	122.65	126.33
2	Dearness Pay						
3	Dearness Allowance	10.31	10.14	1.16	7.74	14.72	22.11
4	House rent Allowance						
5	Fixed medical allowance						
6	Medical reimbursement charges	1.01	0.61	0.84	0.86	0.89	0.91
7	Over time payment	0.66	0.24	0.33	0.34	0.35	0.36
8	Other Allowances	13.17	13.76	18.89	19.45	20.04	20.64
9	Generation incentive						
10	Leave Travel Concession						
11	Apportionment of Holding Exp**	45.47	48.60	66.73	68.73	70.79	72.92
12	Time Bound Fixation Benefit	0.01	0.03	0.03	0.04	0.04	0.04
13	Recreation						
14	Incentive for Meter Readers	0.39	0.40	0.55	0.56	0.58	0.60
15	Sub-Total	141.25	157.98	204.13	216.81	230.06	243.91
	Terminal Benefits						
16	Leave encashment	0.00	0.01	0.01	0.01	0.01	0.01
17	Gratuity						
18	Commutation of Pension						
19	Staff Welfare expenses						
20	CPS	1.38	1.79	2.45	2.53	2.60	2.68
21	Workman compensation						
22	Ex- gratia	0.04	0.05	0.07	0.07	0.07	0.07
23	Sub-Total	1.42	1.84	2.53	2.61	2.68	2.76
	Pension Payment						
24	Basic Pension						
25	Dearness Pension						
26	Dearness allowance						
27	Any other expenses						
28	Sub-Total	0.00	0.00	0.00	0.00	0.00	0.00
		449.67	450.00				
27	Total Amount (15+23+28)	142.67	159.82	206.66	219.41	232.74	246.67

#### Table 5.32 : Projected Employee Expense of MePDCL

\*\*Apportionment of Employee Expenses: This pertains to the 30% of the employee costs of MeECL working in distribution function. MePDCL has the policy to bear the Employees Cost of MeECL (Holding Company) to the tune of 30% of the total cost in a financial year for such staff (As stated in Note 27.2 of the FY 2019-20 accounts).

Further the same amount has been deducted from the MeECL employee expenses to arrive at MeECL employee costs (Note 21 of MeECL accounts FY 2019-20). Thus, there is no double counting of MeECL expenses and only 30% of the MeECL employee expenses is loaded in MePDCL employee expenses. Since 30% of employee expenses is loaded in MePGCL, MePTCL and MePDCL accounts, the apportioned portion is exactly the same in the employee expenses projections for MePDCL, MePTCL (as per MYT tariff petition filed) and MePGCL (as per the MYT petition filed). Also, this element should not be considered as an additional new expense item as it reflects the employee cost of existing employees working in distribution business only and whose costs have been earlier approved by the Commission also.

The MeECL employee expenses projected for the control period is as shown below:

						(	Rs. Crore)
SI	Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
	SALARIES & ALLOWANCES						
1	Basic Pay	2.39	2.90	3.93	4.05	4.17	4.29
2	Dearness Pay						
3	Dearness Allowance	0.32	0.31	0.04	0.26	0.50	0.75
4	House rent Allowance						
5	Fixed medical allowance						
6	Medical reimbursement charges	0.10	0.09	0.12	0.12	0.12	0.13
7	Over time payment						
8	Othe Allowances	0.30	0.31	0.42	0.44	0.45	0.46
9	Generation incentive						
10	Leave Travel Concession						
11	Sitting Fees of Independent Directors						
12	Time Bound Fixation Benifit						
13	Recreation						
14	Honorariams						
15	Sub-Total	3.11	3.61	4.51	4.87	5.24	5.64
	Terminal Benefits						
16	Leave encashment	0.73	0.70	0.94	0.97	1.00	1.03
17	Gratuity	1.26	0.94	1.27	1.31	1.35	1.39
18	Commutation of Pension						
19	Staff Welfare expenses	0.00	0.15	0.20	0.21	0.22	0.22
20	CPS	0.02	0.03	0.04	0.04	0.04	0.04
21	Workman compensation	0.00	0.01	0.01	0.01	0.01	0.01
22	Stipend Charges	0.06	0.02	0.02	0.02	0.02	0.02
23	EPF Contribution	0.12	0.37	0.50	0.52	0.53	0.55
24	Sub-Total	2.19	2.21	2.49	2.56	2.64	2.72
	Pension Payment						
25	Pension Payment	9.48	10.09	13.68	14.09	14.51	14.95
26	Dearness Pension						
27	Dearness allowance						
	Pension Contribution to						
28	Deputations						
29	medical Expenses of Pensioners	0.43	0.46	0.63	0.65	0.67	0.69
30	Sub-Total	9.91	10.55	14.31	14.74	15.18	15.63
31	Total (15+24+30)	15.21	16.36	21.31	22.17	23.06	23.99
21	10(d) (13724730)	13.21	10.30	21.31	22.1/	23.00	23.33

Table 5.33 : Projected Employee Expense of MeECL

Similar assumptions have been used to arrive at MeECL employee expenses as used to arrive at MePDCL employee expenses and stated in Section 4.4.2 and 4.4.3 above.

The above figures represent 10% MeECL employee costs (30% each has been apportioned in MePGCL, MePDCL and MePTCL)

MePDCL humbly prays before the Commission to kindly consider the assumptions as stated above for the computation of Employee Expenses and approve the employee expenses for the control period as shown below.

Table 5.34 : Net Employee Expense of MePDCL

(Rs. Crore)

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
MePDCL Employee Costs (Table 8 figures)	142.67	159.82	206.66	219.41	232.74	246.67
Employee Expenses of MeECL Apportioned (Table 9 figures/3)	5.07	5.45	7.10	7.39	7.69	8.00
Net Total	147.74	165.28	213.77	226.80	240.43	254.67

# Commission's Analysis

Regulation 94 of MSERC MYT Regulations 2014 specifies -

Operation and Maintenance Expenses or O&M Expenses shall mean the total of all expenditure under the following heads:-

- Employee Cost
- Repairs and Maintenance
- Administration and General Expenses.

In the absence of any norms for O&M expenses, the Commission shall determine operation and maintenance expenses based on prudence check of the estimates submitted by the licensee and consumer price index/wholesale price index/inflation.

The Management of MeECL has approved revision of Pay Scales effective from 01.01.2020 to employees of all the subsidiaries (Generation, Transmission and Distribution) vide notification no. MeECL/CA/PB/112/2019/23 dated 19th November 2019.

Petitioner Submitted that MeSEB has a policy for revising pay scale of employees every five years. As per this policy, the petitioner projected Employee expenses in the revised pay scales approved by the corporation effective from 01.01.2020.

It is also submitted that an overall increase of 27% is considered due to the ROP impact in the basic salary and a 3% increase subsequently for annual increment.

It is submitted that other components of employee cost have been calculated as a percentage of basic pay.

The Dearness allowance for FY 2020-21 is retained at 1% of the basic pay. The Subsequent increase in DA will be adjusted as and when the state govt. makes any notification.

The Petitioner has submitted as per MeECL policy Employees have a 2 half yearly increments based on the price index announced by labour department every year. The Computation of DA is considered at 6.5%, 12% and 17.5% of Basic pay for the control period.

Accordingly DA component is considered for 3<sup>rd</sup> MYT control period as claimed.

MePDCL has projected apportionment of holding expenses of MeECL in the table no.8 of the petition for employee expenses at Rs.48.60 Crore for FY 2019-20.

# It is to be stated that any transaction related to the employee benefits made under provisions schedule (note) shall not be considered for determination of Tariff.

The Licensee is further informed that commission had notified in the Tariff Order for FY 2011-12 and FY 2012-13 that as per the Govt. of Meghalaya notification in connection with the reforms and re organisation of MeSEB, directed the MeECL to get completed the exercise of actuary and start funding the **pension trust** so that the liabilities towards pension etc., shall be discharged from the Trust fund and not from the Tariffs.

The CPI inflation index for FY 2019-20 indicated an increase of 4.46% and WPI inflation indicates 2.01%. Average of the CPI and WPI is reckoned at 3.12% taking into account the CPI at 45% and WPI at 55%. The Same average inflation of 3.12% is considered for escalation year on year in respect of other allowances and CPS for the FY 2020-21 and for 3<sup>rd</sup> MYT Control period.

Commission considers the impact of the ROP as per the projections filed by the licensee to arrive at the basic pay in the revised pay scales and other allowances have been considered based on the inflation rates provisionally.

Accordingly the Employee expenses for FY 2020-21 is arrived at the basic pay in the revised scales and an increase of 3% for subsequent increment, and other expenses escalated as per the inflation index for 3<sup>rd</sup> MYT control period FY 2021-22 to FY 2023-24.

# Table 5.35 : Computation of Employee expenses with ROP impact for FY 2020-21 and for 3<sup>rd</sup> MYT Control Period

							(Rs.Crore)		
si	Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Estimated)	FY 2022-23 (Estimated)	FY 2023-24 (Estimated)		
	Salary & Allowances								
1	Basic Pay	70.22	84.21	115.61	119.08	122.65	126.33		
2	Dearness Pay								
3	Dearness Allowance	10.31	10.14	1.16	7.74	14.72	22.11		
4	House rent Allowance								
5	Fixed medical allowance								
6	Medical reimbursement charges	1.01	0.61	0.63	0.65	0.67	0.69		
7	Over time payment	0.66	0.24	0.25	0.26	0.27	0.28		
8	Other Allowances	13.17	13.76	14.19	14.63	15.09	15.56		
9	Generation incentive								
10	Leave Travel Concession								
11	Apportionment of Holding Exp**		Not Considered						
12	Time Bound Fixation Benefit	0.01	0.03	0.03	0.04	0.04	0.04		
13	Recreation								
14	Incentive for Meter Readers	0.39	0.40	0.41	0.43	0.45	0.46		
15	Sub-Total	95.78	109.38	132.28	142.83	153.89	165.47		
	Terminal Benefits								
16	Leave encashment	0.00	0.01	0.01	0.01	0.01	0.01		
17	Gratuity								
18	Commutation of Pension								
19	Staff Welfare expenses								
20	CPS	1.38	1.79	1.85	1.90	1.96	2.02		
21	Workman compensation								
22	Ex- gratia	0.04	0.05	0.05	0.05	0.05	0.05		
23	Sub-Total	1.42	1.84	1.91	1.96	2.02	2.08		
	Pension Payment								
24	Basic Pension								
25	Dearness Pension								
26	Dearness allowance								
27	Any other expenses								
28	Sub-Total								
29	Total Amount (15+23+28)	97.20	111.22	134.19	144.79	155.91	167.55		

The Employee expenses are computed taking into consideration the ROP impact and inflation index provisionally for the control period and shall be regulated in the True up process.

Licensee has projected MeECL employee expenses for FY 2020-21 at Rs.21.31 Crore considering the ROP impact as assumed vide para 4.42 of the petition at 27% vide table no.6.

The Petitioner has submitted as per MeECL policy Employees have a 2 half yearly increments based on the price index announced by labour department every year. The Computation of DA is considered at 6.5%, 12% and 17.5% of Basic pay for the control period. Accordingly DA component is considered for 3<sup>rd</sup> MYT control period as claimed.

The MeECL employee expense has been computed as considered for MePDCL as depicted in the table below. The ROP notification dated 19.11.2019 does not provide for increase of pension to the retired employees. The Commitment towards pension payment is considered for enhancement at inflation rate notified at 3.12% year on year.

The 1/3<sup>rd</sup> of MeECL employee expenses including pensioner's payment is apportioned in the MePDCL employee expenses provisionally.

# Table 5.36 : Computation of Employee Expense for MeECL

		FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
SI	Particulars	(Actual)	(Provisional)	(Estimated)	(Estimated)	(Estimated)	(Estimated)
	SALARIES & ALLOWANCES						
1	Basic Pay	2.39	2.90	3.93	4.05	4.17	4.29
2	Dearness Pay						
3	Dearness Allowance	0.32	0.31	0.04	0.26	0.50	0.75
4	House rent Allowance						
5	Fixed medical allowance						
6	Medical reimbursement charges	0.10	0.09	0.09	0.09	0.10	0.10
7	Over time payment						
8	Othe Allowances	0.30	0.31	0.32	0.33	0.34	0.35
9	Generation incentive						
10	Leave Travel Concession						
	Sitting Fees of Independent						
11	Directors						
12	Time Bound Fixation Benifit						
13	Recreation						
14	Honorariams						
15	Sub-Total	3.11	3.61	4.38	4.73	5.11	5.49
	Terminal Benefits						
16	Leave encashment	0.73	0.70	0.72	0.74	0.77	0.79
17	Gratuity	1.26	0.94	0.97	1.00	1.03	1.06
18	Commutation of Pension						
19	Staff Welfare expenses	0.00	0.15	0.15	0.15	0.16	0.16
20	CPS	0.02	0.03	0.04	0.04	0.04	0.04
21	Workman compensation	0.00	0.01	0.01	0.01	0.01	0.01
22	Stipend Charges	0.06	0.02	0.02	0.02	0.02	0.02
23	EPF Contribution	0.12	0.37	0.38	0.39	0.40	0.42
24	Sub-Total	2.19	2.21	2.29	2.35	2.43	2.50
	Pension Payment	0.40	10.00	10.40	10.72	11.00	11.40
25	Pension Payment	9.48	10.09	10.40	10.72	11.06	11.40
26	Dearness Pension						
27	Dearness allowance						
28	Pension Contribution to Deputations						
29	medical Expenses of Pensioners	0.43	0.46	0.47	0.48	0.50	0.52
30	Sub-Total	9.91	10.55	10.87	11.20	11.56	11.92
31	Total (15+24+30)	15.21	16.36	17.54	18.28	19.10	19.91

1/3<sup>rd</sup> of the Employee expenses are apportioned to Employee expenses of MePDCL in the Table below.

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Estimated)	FY 2022-23 (Estimated)	FY 2023-24 (Estimated)
MePDCL Employee Costs	97.20	111.22	134.19	144.79	155.91	167.55
Employee Expenses of MeECL Apportioned( 1/3 <sup>rd</sup> of Table 9)	5.07	5.45	5.85	6.09	6.36	6.64
Net Total	102.27	116.67	140.04	150.88	162.27	174.19

Table 5.37 : Approved Net Employee Expense of MePDCL for Control period

Commission considers Employee expenses at Rs.150.88 Crore, Rs.162.27 Crore and Rs.174.19 Crore for 3<sup>rd</sup> MYT Control period FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

# 5.15 Repairs and Maintenance Expenses

# Petitioner' submission

Meghalaya, being a hilly terrain, demands comparatively more investment for maintaining the distribution network particularly where a lot of assets are old and ageing and limited investments have been made for upkeep and renovation and modernization of the assets given the poor financial position of the utilities. Under these circumstances there is a genuine need for incurring repair & maintenance expenses to keep the current assets in good health and 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 average inflation rate of 5% (CPI) on the actual expenses of FY 2018-19 and FY 2019-20.

Based on the above submissions, the R&M Expense projections for the third control period is as shown below:

(Rs. Crore)

S. No	Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Buildings	0.18	0.11	0.12	0.12	0.13	0.13
2	Plant and Equipment	1.39	1.26	1.32	1.39	1.46	1.53
3	Civil Works	0.08	0.04	0.05	0.05	0.05	0.05
4	Lines & Cables	2.07	4.14	4.35	4.57	4.80	5.04
5	Vehicles	0.09	0.10	0.11	0.11	0.12	0.12
6	Furniture and Fixtures	0.03	0.01	0.01	0.01	0.01	0.01
7	Office equipment	0.16	0.18	0.19	0.20	0.21	0.22
8	Total R&M Expenses of MePDCL	4.00	5.86	6.15	6.46	6.78	7.12
9	R&M Expenses of MeECL Apportioned	0.10	0.04	0.05	0.05	0.05	0.05
10	Net R&M Expenses	4.11	5.90	6.20	6.51	6.83	7.17

# Table 5.38 : Repair & Maintenance (R&M) Expense for the Control Period

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

# **Commission's Analysis**

The Statement of Accounts for FY 2019-20 reveals R&M expenses at Rs.5.86 Crore and Rs.0.04 Crore apportionment of MeECL R&M expenses.

Considering average inflation index at 3.12%, the R&M expenses for FY 2020-21 and for 3<sup>rd</sup> MYT Control period are computed and approved as depicted in the table below.

Table 5.39 : Approved Ra	&M expenses for	r Control period
Tuble 5105 Trippi of Cu In	and expenses io	control period

(Rs.Crore)

(Rs. Crore)

Particulars	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Estimated)	FY 2022-23 (Estimated)	FY 2023-24 (Estimated)
R&M Expenses	5.86	6.04	6.23	6.42	6.63
R&M Expenses of MeECL Apportioned	0.04	0.04	0.04	0.04	0.04
Net Total	5.90	6.08	6.27	6.46	6.67

Commission considers R&M expenses at Rs.6.27 Crore, Rs.6.46 Crore and Rs.6.67 Crore for 3<sup>rd</sup> MYT Control period FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

# 5.16 Administrative and General (A&G) Expenses

# Petitioner' submission

The A&G Expense for the control period has been projected by considering inflation rate of 5% (CPI) on the actual expenses of FY 2018-19 and FY 2019-20. as shown below:

						(Rs	s.Crore)
S. No	Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Insurance Charges	0.03	0.03	0.03	0.03	0.04	0.04
2	Bad debts written off	0.35	2.17	2.28	2.40	2.52	2.64
3	Staff Advances written off		0.01	0.01	0.01	0.01	0.01
4	Sundry Debits written off		0.00	0.00	0.00	0.00	0.00
5	Rent, Rates and Taxes	0.06	0.03	0.03	0.03	0.03	0.04
6	Telegram, Postage, Telegraph and Telex charges	0.54	0.11	0.12	0.13	0.13	0.14
7	Training, conveyance and vehicle running expenses	6.26	5.03	5.28	5.54	5.82	6.11
8	Printing and stationery expenses	0.53	0.34	0.35	0.37	0.39	0.41
9	Auditors' remuneration*	0.07	0.06	0.07	0.07	0.07	0.08
10	Consultancy Charges	0.02	0.00	0.00	0.00	0.00	0.00
11	License and Registration Charges	0.00	0.00	0.00	0.00	0.00	0.00
12	Technical fees	0.01	0.00	0.00	0.00	0.00	0.00
13	Books & Periodicals	0.00	0.00	0.00	0.00	0.00	0.01
14	Fees and subscription expenses	0.01	0.00	0.00	0.00	0.00	0.00
15	Advertisement charges	0.19	0.03	0.03	0.03	0.03	0.03
16	Legal and professional charges	0.37	1.45	1.52	1.60	1.68	1.76
17	Fees to Meghalaya State Electricity Regulatory Commission (MSERC)	0.15	0.13	0.14	0.15	0.15	0.16
18	Electricity and Water Charges	0.06	0.00	0.00	0.00	0.00	0.00
19	Franchisee Commission	0.67	0.87	0.91	0.96	1.01	1.06
20	Franchisee Transmission Loss		0.44	0.46	0.49	0.51	0.54
21	Discount allowed	0.28	0.39	0.41	0.43	0.45	0.48
22	Bank Charges	0.04	0.09	0.10	0.10	0.11	0.11
23	Entertainment expenses	0.03	0.00	0.00	0.00	0.00	0.00
24	RAPDRP Energy Charges	0.01					
25	Miscellaneous expenses	0.14	0.05	0.05	0.05	0.05	0.06
26	Annual Communication & AMC for Smart Meter Works *			17.38	17.38	17.38	17.38
23	Total expenses of MePDCL	9.82	11.24	29.18	29.77	30.39	31.04
24	A&G Expenses of MeECL Apportioned	0.98	2.48	2.60	2.73	2.87	3.01
25	Net expenses	10.79	13.72	31.78	32.50	33.26	34.05

# Table 5.40 : Administrative & General Expenses for the Control Period

\* The cost pertains to Annual Operational Expenditure to be borne for the smart meter installation in the state of Meghalaya. The capital expenditure for the project has been submitted to the Commission via supplementary information in the letter No. MePDCL/SE (RA)/BP/FY 2021-24/2020/31 dated 9 November 2020. MePDCL therefore, humbly prays before the Commission to kindly approve the A&G expenses as shown above.

# **Commission's Analysis**

The Statement of accounts for FY 2019-20 reveals actual A&G expenses at Rs. 11.24 Crores including Rs.2.17 Crore bad debts written off which shall not be considered as Adm & General expenses. The Bad debts shall be accounted for and set off from the provision accumulated under revenue head.

The annual communication and AMC charges for smart meter works claimed at Rs.17.38 Cr for FY 2020-21 shall not be admissible since the project smart-metering is so far not grounded and shall be accounted for as expenditure in the year of capitalization. The annual maintenance charges shall be booked under R&M expenses.

Considering the above aspects the Adm & General expenses for FY 2019-20 shall be Rs.11.55 Crore.

The Adm &General expenses of MeECL reported to be Rs.7.44 Crore in the SOA for FY 2019-20 appears to be 154% excess over the previous year FY 2018-19 at Rs.2.93Crore.

1/3<sup>rd</sup> of MeECL Adm & General expenses however are considered for Rs.2.56 Crore for computation of MePDCL expenses for FY 2020-21 at Rs.11.88 Crore.

Considering the above aspects the Adm & General expenses for FY 2020-21 are computed at Rs.9.32 Crore for MePDCL and Rs.2.56 Crore for 1/3<sup>rd</sup> MeECL Adm & General expenses and for 3<sup>rd</sup> MYT Control period escalating at inflation rates 3.12% as depicted in table below.

						(Rs.Crore)	
<b>S</b> .	Particulars	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
No	Particulars	(Actual)	(Provisional)	(Estimated)	(Estimated)	(Estimated)	(Estimated)
1	Insurance Charges	0.03	0.03	0.03	0.03	0.03	0.03
2	Bad debts written off	0.35					
3	Staff Advances written off		0.01	0.01	0.01	0.01	0.01
4	Sundry Debits written off		0	0	0	0	0
5	Rent, Rates and Taxes	0.06	0.03	0.03	0.03	0.03	0.03
6	Telegram, Postage, Telegraph and Telex charges	0.54	0.11	0.11	0.12	0.12	0.12
7	Training, conveyance and vehicle running expenses	6.26	5.03	5.19	5.35	5.52	5.69
8	Printing and stationery expenses	0.53	0.34	0.35	0.36	0.37	0.38
9	Auditors' remuneration*	0.07	0.06	0.06	0.06	0.06	0.07
10	Consultancy Charges	0.02	0	0	0	0	0
11	License and Registration Charges	0	0	0	0	0	0
12	Technical fees	0.01	0	0	0	0	0
13	Books & Periodicals	0	0	0	0	0	0
14	Fees and subscription expenses	0.01	0	0	0	0	0
15	Advertisement charges	0.19	0.03	0.03	0.03	0.03	0.03
16	Legal and professional charges	0.37	1.45	1.5	1.54	1.59	1.64
17	Fees to Meghalaya State Electricity Regulatory Commission (MSERC)	0.15	0.13	0.13	0.14	0.14	0.15
18	Electricity and Water Charges	0.06	0	0	0	0	0
19	Franchisee Commission	0.67	0.87	0.89	0.92	0.95	0.98
20	Franchisee Transmission Loss		0.44	0.45	0.47	0.48	0.5
21	Discount allowed	0.28	0.39	0.4	0.41	0.43	0.44
22	Bank Charges	0.04	0.09	0.09	0.09	0.1	0.1
23	Entertainment expenses	0.03	0	0	0	0	0
24	RAPDRP Energy Charges	0.01					
25	Miscellaneous expenses	0.14	0.05	0.05	0.05	0.05	0.05
20	Annual Communication & AMC for						
26	Smart Meter Works *						
23	Total expenses of MePDCL	9.82	9.06	9.32	9.61	9.91	10.22
24	A&G Expenses of MeECL Apportioned	0.98	2.48	2.56	2.63	2.72	2.8
25	Net expenses	10.79	11.54	11.88	12.24	12.63	13.02

# Table 5.41 : Administrative & General Expenses for the Control Period

Commission considers Adm. and general Expenses for MYT control period

Particulars	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Estimated)	FY 2022-23 (Estimated)	FY 2023-24 (Estimated)
Adm & General Expenses	9.06	9.32	9.61	9.91	10.22
A&G Expenses of MeECL Apportioned	2.48	2.56	2.63	2.72	2.80
Net Total	11.54	11.88	12.24	12.63	13.02

Table 5.42 : Approved Adm & General expenses for 3<sup>rd</sup> MYT Control period

Commission considers A&G expenses at Rs.12.24 Crore, Rs.12.63 Crore and Rs. 13.02 Crore for 3<sup>rd</sup> MYT Control period FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

Table 5.43 : Approved O&M expenses for MYT Control period

(in.Rs. Cr)

(Rs.Crore)

	Particulars	FY 2021-22	FY 2022-23	FY 2023-24
1	Employee Expenses Incl. 1/3 <sup>rd</sup> MeECL cost	150.88	162.27	174.19
2	Repairs and Maintenance Expenses	6.27	6.46	6.67
3	Adm & General Expenses	12.24	12.63	13.02
4	Total	169.39	181.36	193.88

Commission approves O&M expenses at Rs.169.39 Crore, Rs.181.36 crore and Rs.193.88 Crore for 3<sup>rd</sup> MYT control period FY 2021-22, FY 2022-23 and FY 2023-24 respecively.

# 5.17 Return on Equity

# Petitioner' submission

The Licensee has projected the Return on Equity for the next control period based on the average asset base for MePDCL (funded by no grants). This is similar to the approach followed by the Commission in its past few tariff and true up orders. The asset base used for calculation of equity base and subsequent return on equity has been arrived by reducing the grant portion from the asset.

The asset creation is a result of funding through equity or grants or loan. The licensee has further calculated the grant portion of the asset base by taking into account the total equity, grants and loans of the licensee as shown below. This component as calculated below is important to calculate the asset base w/o grant portion which can be used for further used for calculation of the equity base.

# Table 5.44 : Calculation of Grant Portion of Asset for 2021-22 to FY 2023-24

						(Rs.C	Crore)
SI. No	Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
		Actual from the accounts		Addition of the loan, grants and equity for the years to arrive at closing cumulative loan, grants and equity has been calculated from the capital expenditure schedule as shown in the Table 2 of Section 4.3.1 of the petition			
1	Opening GFA for the Year	438.94	442.83	478.97	1440.79	1594.21	1646.44
2	GFA Addition for the Year	3.88	36.15	961.82	153.42	52.23	1232.73
3	Closing GFA for the Year	442.83	478.97	1440.79	1594.21	1646.44	2879.17
4	Average Assets Base for the Year	440.88	460.90	959.88	1517.50	1620.33	2262.81
5	Opening Equity Base for the Year	844.24	846.86	850.22	850.22	850.22	850.22
6	Closing Equity Base for the Year	846.86	850.22	850.22	850.22	850.22	850.22
7	Average Equity Base for the Year	845.55	848.54	850.22	850.22	850.22	850.22
8	Opening Grant for the Year	278.28	542.55	925.86	1233.64	1657.55	2098.44
9	Closing Grant for the Year	542.55	925.86	1233.64	1657.55	2098.44	2527.30
10	Average Grant for the Year	410.41	734.20	1079.75	1445.59	1877.99	2312.87
11	Opening Long Term Loan for the Year	492.09	463.84	478.44	478.77	479.51	480.25
12	Closing Long Term Loan for the Year	463.84	478.44	478.77	479.51	480.25	481.00
13	Average Long-Term Loan for the Year	477.97	471.14	478.60	479.14	479.88	480.62
14	Grant Portion of the Asset 14=4*{10/ (7+10+13)}	104.36	164.76	430.31	790.53	948.53	1436.33

Based on the grant portion of the asset (above table), the total asset base (Section 4.3.3 of the petition) and the Commission's methodology, the return on equity for the control period is given below:

## Table 5.45 : Projected Return on Equity for Control Period 2021-22 to FY 2023-24

(Rs.Crore)

SI. no	Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
1	Opening GFA for the Year	438.94	442.83	478.97	1440.79	1793.36	1845.59
2	Closing GFA for the Year	442.83	478.97	1440.79	1793.36	1845.59	3078.32
3	Average Assets Base for the Year	440.88	460.90	959.88	1617.08	1819.48	2461.96
6	Average Grant Portion of the Asset Base (From the above table)	104.36	164.76	430.31	842.41	1065.11	1562.74
7	Asset Base excluding Grant Portion	336.53	296.14	529.57	774.67	754.37	899.21
8	Debt component (70% of GFA)	235.57	207.30	370.70	542.27	528.06	629.45
9	Equity component (30% of GFA)	100.96	88.84	158.87	232.40	226.31	269.76
10	RoE (%)	14%	14%	14%	14%	14%	14%
11	Return on Equity	14.13	12.44	22.24	32.54	31.68	37.77

However, the Licensee would like to submit that the issue of Return on Equity (methodology of MeECL & its subsidiaries versus methodology of MSERC: APTEL Case no 46 of 2016) is still under subjudice. The licensee has also challenged the methodology in the review petition of true up FY 2016-17 whose order is still awaited from the Commission. In case of a favourable order to the Licensee with respect to the methodology adopted for return on equity, the Licensee will reclaim/adjust the additional claim of return on equity in the subsequent tariff petitions. At present, the petitioner, in this instant petition, have claimed return based on the methodology adopted by the Commission in its past orders to avoid ambiguities in figures/calculation.

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

# **Commission's Analysis**

# Regulation 31 read with 27 of MSERC Regulations 2014 specifies

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.

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.

Licensee has yet to file the petitions for True up of FY 2018-19 and FY 2019-20.

The Licensee has filed petition for Review of the True up order dated 13.10.2020 for FY 2017-18 wherein MePDCL has claimed GFA addition for Rs.92.07 Crore which was disallowed in the True up orders for want of the details of the project wise and scheme wise capitalization.

MePDCL has submitted the details as called for and the commission has considered the capitalization in the Review orders. Thus the Closing GFA for FY 2017-18 stood at Rs.441.25 Crore.

The Return on Equity claimed in the petition vide table no.22 does not commensurate the approved GFA of the True up figures for FY 2017-18 and capital grants as approved in the business plan for Control period vide table no.3.40.

Based on the Review orders, the capital cost considered for Rs.441.25 Crore is adopted for opening balance of GFA and subsequent additions as filed by the licensee is considered for computation of Return on equity for the control period as depicted in the table below.

The GFA for MYT Control period shall be adopted as approved for business plan for computation of ARR as per the Regulations.

SI. no	Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Estimated)	FY 2022-23 (Estimated)	FY 2023-24 (Estimated)
1	Opening GFA	441.25	445.13	481.28	1443.10	1596.52	1648.75
2	Additions during the year (Based on the capitalization schedule above)	3.88	36.15	961.82	153.42	52.23	1232.73
3	Retirements during the year	0.00	0.00	0.00	0.00	0.00	0.00
4	Closing GFA	445.13	481.28	1443.10	1596.52	1648.75	2881.48
5	Average GFA	443.19	463.21	962.19	1519.81	1622.64	2265.12
6	Opening Grants	283.11	564.16	567.52	1528.69	1682.11	1734.34
7	additions	292.74	3.36	961.17	153.42	52.23	1306.29
8	deductions	11.69	-	-	-	-	
9	Closing Grants	564.16	567.52	1528.69	1682.11	1734.34	3040.63
10	Average Grants available	423.64	565.84	1048.11	1605.04	1708.23	2387.49
11	Net GFA (sl.no5 - sl.no.10)	19.55	-102.63	-85.92	-85.23	-85.59	-122.37
12	Debt @70%	13.69	-	-	-	-	-
13	Equity @ 30%	5.86	-	-	-	-	-
14	ROE at 14%	0.82	0.00	0.00	0.00	0.00	0.00

Table 5.46 : Computation of Return on Equity for 3<sup>rd</sup> MYT Control period

The licensee submitted that the issue of Return on Equity methodology of MeECL and its subsidiaries vs Methodology of MSERC (APTEL case no. 46 of 2016) is still under subjudice.

The Computations for ROE works out to be negative allowance considering the projected capital investment and the receipt of the Govt. Grants resulted in negative ROE for the 3<sup>rd</sup> MYT Control period.

Commission considers Return on Equity NIL for 3<sup>rd</sup> MYT Control period FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

# 5.18 Depreciation

# Petitioner' submission

The Gross Fixed Asset (GFA) base for FY 2018-19 and FY 2019-20as shown in Section 4.3.3 (without IND AS adjustment) represents the historical asset value of asset which has been used in the calculation of depreciation component. The additions in GFA for the control period has been considered based on the capitalization schedule as shown in Section 4.3.2 of the petition. The rate of depreciation for various

(Rs.Crore)

categories of assets has been considered strictly as per the depreciation rates as stipulated in the MSERC MYT Regulations, 2014.

The assets created out of government grants and consumer contribution has not been considered for the calculation of depreciation and thus the same has been **deducted from the depreciation as amortization** to arrive at the net depreciation. The projected amortization of grants from FY 2020-21 onwards has been calculated by the formula: Actual Amortization of Grants of FY 2019-20 (from SOA) + average projected grants for the corresponding year \* 5.28% (average depreciation rate).

Grant Portion of Asset for control period is as per Table 4 in Section 4.3.2 of the petition.

Based on the above, the actual depreciation in FY 2018-19, FY2019-20, estimated depreciation in FY 2020-21 and projections for FY 2021-22, FY 2022-23, FY 2023-24 are shown in the following tables. The detailed calculation is also shown in Format 6, Annexure I for reference.

Table 5.47 : Projected	Depreciation FY 2018-19
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(Rs.Crore)

SI. No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	1.26	0.33	0.00	1.59	0.00
2	Buildings	13.60	0.00	0.00	13.60	0.45
3	Plant and Equipment	51.81	0.04	0.00	51.86	2.22
4	Furniture and Fixtures	0.99	0.00	0.00	0.99	0.03
5	Vehicles	0.69	0.00	0.00	0.69	0.03
6	Office equipment	1.79	0.03	0.00	1.82	0.09
7	Hydraulic Works	0.09	0.00	0.00	0.09	0.00
8	Other Civil Works	3.05	0.00	0.00	3.05	0.10
9	Lines and Cable Network	365.67	3.48	0.00	369.15	14.83
	Gross Depreciation *	438.94	3.88	0.00	442.83	17.76
	Amortization of Grants*					11.69
	Net Depreciation					6.07

\* Note 19 of MePDCL FY 2018-19 Accounts

SI. No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	1.59	0.10	0.00	1.69	0.00
2	Buildings	13.60	0.00	0.00	13.60	2.75
3	Plant and Equipment	51.86	2.78	0.00	54.64	4.17
4	Furniture and Fixtures	0.99	0.00	0.00	0.99	0.03
5	Vehicles	0.69	0.00	0.00	0.69	0.03
6	Office equipment	1.82	0.04	0.00	1.86	0.09
7	Hydraulic Works	0.09	0.00	0.00	0.09	0.00
8	Other Civil Works	3.05	0.00	0.00	3.05	0.10
9	Lines and Cable Network	369.15	33.21	0.00	402.36	11.36
	Gross Depreciation	442.83	36.15	0.00	478.97	18.53
	Amortization of Grants*					16.00
	Net Depreciation					2.53

# Table 5.48 : Projected Depreciation FY 2019-20

\* Note 25 of MePDCL FY 2019-20 Accounts

# Table 5.49 : Estimated Depreciation FY 2020-21

(Rs.Crore)

(Rs.Crore)

SI. No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	1.69	3.40		5.09	0.00
2	Buildings	13.60	27.31		40.91	0.91
3	Plant and Equipment	54.64	109.73		164.37	6.36
4	Furniture and Fixtures	0.99	1.99		2.98	0.13
5	Vehicles	0.69	1.38		2.07	0.13
6	Office equipment	1.86	3.74		5.60	0.24
7	Hydraulic Works	0.09	0.17		0.26	
8	Other Civil Works	3.05	6.12		9.16	0.20
9	Lines and Cable Network	402.36	807.98		1,210.35	42.58
	Gross Depreciation	478.97	961.82	0.00	1,440.79	50.54
	Amortization of Grants					41.39
	Net Depreciation					9.15

						(Rs.Crore)
SI. No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	5.09	1.25		6.34	0.00
2	Buildings	40.91	10.01		50.92	1.53
3	Plant and Equipment	164.37	40.22		204.59	10.72
4	Furniture and Fixtures	2.98	0.73		3.71	0.21
5	Vehicles	2.07	0.51		2.58	0.22
6	Office equipment	5.60	1.37		6.97	0.40
7	Hydraulic Works	0.26	0.06		0.33	0.02
8	Other Civil Works	9.16	2.24		11.41	0.34
9	Lines and Cable Network	1,210.35	296.18		1,506.53	71.73
	Gross Depreciation	1,440.79	352.57	0.00	1,793.36	85.17
	Amortization of Grants					70.75
	Net Depreciation					14.42

# Table 5.50 : Projected Depreciation FY 2021-22

# Table 5.51 : Projected Depreciation FY 2022-23

		-				(Rs Cr)
SI. No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	6.34	0.18		6.52	0.00
2	Buildings	50.92	1.48		52.40	1.73
3	Plant and Equipment	204.59	5.96		210.55	12.06
4	Furniture and Fixtures	3.71	0.11		3.82	0.24
5	Vehicles	2.58	0.08		2.65	0.25
6	Office equipment	6.97	0.20		7.17	0.45
7	Hydraulic Works	0.33	0.01		0.34	0.02
8	Other Civil Works	11.41	0.33		11.74	0.39
9	Lines and Cable Network	1,506.53	43.88		1,550.40	80.70
	Gross Depreciation:	1,793.36	52.23	0.00	1,845.59	95.83
	Amortization of Grants					76.18
	Net Depreciation					19.65

						(Rs.Crore)
SI. No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	6.52	4.36		10.88	0.00
2	Buildings	52.40	35.00		87.40	2.33
3	Plant and Equipment	210.55	140.63		351.18	16.32
4	Furniture and Fixtures	3.82	2.55		6.37	0.32
5	Vehicles	2.65	1.77		4.43	0.34
6	Office equipment	7.17	4.79		11.96	0.61
7	Hydraulic Works	0.34	0.22		0.56	0.02
8	Other Civil Works	11.74	7.84		19.58	0.52
9	Lines and Cable Network	1,550.40	1,035.56		2,585.97	109.20
	Gross Depreciation:	1,845.59	1,232.73	0.00	3,078.32	129.66
	Amortization of Grants					110.04
	Net Depreciation					19.62

Table 5.52 : Projected Depreciation FY 2023-24

The licensee would like to submit that amortization impact has been considered in depreciation head to arrive at net depreciation. Thus, the impact of amortization has been removed from other income (Section 4.13 of the petition) to avoid double counting. MePDCL humbly prays before the Commission to kindly approve the depreciation as computed above.

# Commission's Analysis

According to Regulation 33.1 of MSERC Regulations 2014-

*"For the purpose of tariff determination, depreciation shall be computed in the following manner:* 

- a) The asset value for the purpose of depreciation shall be the historical cost of the assets as approved by the Commission where:
  The opening asset's value recorded in the Balance Sheet as per the Transfer Scheme Notification shall be deemed to have been approved, subject to such modifications as may be found necessary upon audit of the accounts, if such a Balance Sheet is not audited. Consumer contribution or capital subsidy/ grant etc shall be excluded from the asset value for the purpose of depreciation.
- b) For new assets, the approved/accepted cost for the asset value shall include foreign currency funding converted to equivalent rupee at the exchange rate prevalent on the date of foreign currency actually availed but not later than the date of commercial operation.

- c) The salvage value of the assets shall be considered at 10% and depreciation shall be allowed upto maximum of 90 % of the capital cost of the asset.
- d) Depreciation shall be calculated annually as per straight-line method at the rates specified in CERC (Terms and Conditions of Tariff) Regulations, 2009 as may be amended from time to time. Provided that land is not a depreciable asset and its cost shall be excluded from the capital cost while computing the historical cost of the asset.
- *e)* Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro-rata basis.
- f) The remaining depreciable value as on 31st March of the year closing after a period of 12 years from the date of commercial operation shall be spread over the balance useful life of the asset."

Commission considered opening GFA for FY 2018-19 at Rs.441.25 Crore and subsequent period vide table no.5.28 in this order.

The amortization of grants projected in the petition shall be considered at actuals in the True up exercise.

The Licensee has filed petition for Review of the True up order dated 13.10.2020 for FY 2017-18 wherein MePDCL has claimed GFA addition for Rs.92.07 Crore which was disallowed in the True up orders for want of the details of the project wise and scheme wise capitalization.

MePDCL has submitted the details as called for and the commission has considered the capitalization in the Review orders. Thus the Closing GFA for FY 2017-18 stood at Rs.441.25 Crore.

The Depreciation claimed in the petition does not commensurate the approved GFA of the True up figures for FY 2017-18 and capital grants as approved in the business plan for Control period vide table no.3.40.

The breakup of Gross fixed Assets for opening GFA of FY 2018-19 and subsequent additions as approved in the business plan is drawn in the table below for computation for depreciation for the control period.

						(Rs.Crore)
SI. No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	1.27	0.33	0.00	1.60	0.00
2	Buildings	13.60	0.00	0.00	13.60	0.41
3	Plant and Equipment	51.81	0.04	0.00	51.85	2.46
4	Furniture and Fixtures	0.99	0.00	0.00	0.99	0.05
5	Vehicles	0.69	0.00	0.00	0.69	0.06
6	Office equipment	1.79	0.03	0.00	1.82	0.10
7	Hydraulic Works	0.09	0.00	0.00	0.09	0.004
8	Other Civil Works	3.04	0.00	0.00	3.04	0.09
9	Lines and Cable Network	367.97	3.48	0.00	371.45	17.57
	Gross Depreciation *	441.25	3.88	0.00	445.13	20.74
	Average Rate of Depreciation					5.20%
	Less: Depreciation on Grants*				423.64	22.03
	Net Depreciation					-1.29

# Table 5.53 : Computation of Depreciation FY 2018-19

\* Note 19 of MePDCL FY 2018-19 Accounts

# Table 5.54 : Computation of Depreciation FY 2019-20

			-			(Rs.Crore)
SI. No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	1.60	0.12	0.00	1.72	0.00
2	Buildings	13.60	0.00	0.00	13.60	0.41
3	Plant and Equipment	51.85	2.78	0.00	54.63	2.53
4	Furniture and Fixtures	0.99	0.00	0.00	0.99	0.05
5	Vehicles	0.69	0.00	0.00	0.69	0.06
6	Office equipment	1.82	0.04	0.00	1.86	0.10
7	Hydraulic Works	0.09	0.00	0.00	0.09	0.004
8	Other Civil Works	3.04	0.00	0.00	3.04	0.09
9	Lines and Cable Network	371.45	33.21	0.00	404.66	18.44
	<b>Gross Depreciation</b>	445.13	36.15	0.00	481.28	21.68
	Average Rate of Depreciation					5.20%
	Less: Depreciation on Grants*				565.84	29.42
	Net Depreciation					-7.74

\* Note 25 of MePDCL FY 2019-20 Accounts

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						(Rs.Crore)
SI. No	Particulars	Opening GFA	Addition	With drawn	Closing GFA	Depreciation
1	Land	1.72	3.40		5.12	0.00
2	Buildings	13.60	27.31		40.91	0.56
3	Plant and Equipment	54.63	109.73		164.36	5.20
4	Furniture and Fixtures	0.99	1.99		2.98	0.11
5	Vehicles	0.69	1.38		2.07	0.11
6	Office equipment	1.86	3.74		5.60	0.21
7	Hydraulic Works	0.09	0.17		0.26	0.008
8	Other Civil Works	3.04	6.12		9.16	0.18
9	Lines and Cable Network	404.66	807.98		1212.64	38.42
	Gross Depreciation:	481.28	961.82	0.00	1443.10	44.80
	Average Rate of Depreciation					5.17%
	Less: Depreciation on Grants*				1048.11	54.19
	Net Depreciation					-9.39

### Table 5.55 : Estimated Depreciation FY 2020-21

The Petitioner has projected expected capitalization for FY 2021-22 at Rs.153.42 Crore and the same has been approved by the commission vide table no.3.40 of the business plan for the control period. Accordingly depreciation has been computed for FY 2021-22 and subsequent control period.

 Table 5.56 : Approved Depreciation FY 2021-22

(Rs.Crore)

SI. No	Particulars	Opening GFA	Addition	With drawn	Closing GFA	Depreciation
1	Land	5.12	0.00		5.12	0.00
2	Buildings	40.91	0.00		40.91	1.23
3	Plant and Equipment	164.36	5.79		170.15	7.94
4	Furniture and Fixtures	2.98	0.00		2.98	0.17
5	Vehicles	2.07	0.00		2.07	0.18
6	Office equipment	5.60	0.00		5.60	0.32
7	Hydraulic Works	0.26	0.00		0.26	0.01
8	Other Civil Works	9.16	0.00		9.16	0.28
9	Lines and Cable Network	1212.64	147.63		1360.27	61.13
	Gross Depreciation	1443.10	153.42	0.00	1596.52	71.26
	Average Rate of Depreciation					5.21%
	Less: Depreciation on Grants*				1605.04	83.62
	Net Depreciation					-12.36

SI. No	Particulars	Opening GFA	Addition	With drawn	Closing GFA	Depreciation
1	Land	5.12	0.18		5.30	0.00
2	Buildings	40.91	1.48		42.39	1.25
3	Plant and Equipment	170.15	5.96		176.11	8.23
4	Furniture and Fixtures	2.98	0.11		3.09	0.17
5	Vehicles	2.07	0.08		2.15	0.18
6	Office equipment	5.60	0.20		5.80	0.32
7	Hydraulic Works	0.26	0.01		0.27	0.01
8	Other Civil Works	9.16	0.33		9.49	0.28
9	Lines and Cable Network	1360.27	43.88		1404.15	65.68
	Gross Depreciation	1596.52	52.23	0.00	1648.75	76.12
	Average Rate of Depreciation					5.21%
	Less: Depreciation on Grants*				1708.23	89.00
	Net Depreciation					-12.88

# (Rs.Crore)

 Table 5.58 : Approved Depreciation FY 2023-24

						(Rs.Crore)
SI. No	Particulars	Opening GFA	Addition	With drawn	Closing GFA	Depreciation
1	Land	5.30	4.37		9.67	0.00
2	Buildings	42.39	35.00		77.39	1.80
3	Plant and Equipment	176.11	140.63		316.74	11.71
4	Furniture and Fixtures	3.09	2.55		5.64	0.25
5	Vehicles	2.15	1.77		3.92	0.26
6	Office equipment	5.80	4.79		10.59	0.47
7	Hydraulic Works	0.27	0.22		0.49	0.02
8	Other Civil Works	9.49	7.84		17.33	0.40
9	Lines and Cable Network	1404.15	1,035.56		2439.71	91.33
	Gross Depreciation	1648.75	1,232.73	0.00	2881.48	106.24
	Average Rate of Depreciation					5.21%
	Less: Depreciation on Grants*				2387.49	124.39
	Net Depreciation					-18.15

Commission considers depreciation as -NIL- for 3<sup>rd</sup> MYT Control period FY 2021-22, FY 2022-23 and FY 2023-24.

# 5.19 Interest and Finance Charges

# Petitioner' submission

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 new loans projected to be taken based on the approved capital investment plan for the control period. The details of the loan statement for actuals FY 2018-19, FY 2019-20, estimated FY 2020-21 and projected FY 2021-22, FY 2022-23 and FY 2023-24 along with the interest accrued component for both MEECL and MePDCL is given in Format 7, Annexure I.

**MePDCL and MeECL Loan Statements** : The loan portion of the capex in the approved Business Plan and additional investments for Smart meter have been added over and above the existing loan commitments to arrive at MePDCL interest on loan. The same loan portion (of new capex for control period) is also shown in Section 4.3.1 of the petition. Justifications for some of the new loans in given below:

- a) Loans due to Smart Meter Investments: In line with licensee's target to achieve 100% smart meter installation in the state, the licensee is taking loans to install smart meters in areas not covered under the proposed ADB Funding. The details of investments and justification is given is Section 3 of the petition.
- b) State Govt. Loans: This loan has been availed by the licensee from the State Government to help the discom for the construction of new lines and substations as well as renovation and modernization of existing substations under various State or Central schemes. The details about the State Govt. loans are present in Note 12.4.1 of FY 2018-19 MePDCL audited accounts and Note 16.3 in the accounts of MePDCL for FY 2019-20. The State Government loans have also been earlier approved in the past tariff orders and considered for interest calculation.
- c) Additional Loans Due to Capex: These pertain to the loan portion of the approved capital expenditure in the next control period. As stated above, the year wise loan portion has been shown in Section 3.2.1 of the petition (loans excluding 199.15 Cr investments for smart meter in Table 1). The interest rate for the loans have been assumed at the

average interest rates for MePDCL with a loan tenure of 10 years including 1-year moratorium.

- d) Loan for Power Purchase Dues Repayment: This loan has been availed by the licensee under the Central Government Aatama Nirbhar Scheme to help the Discoms repay their power purchase dues. This loan is very important for the licensee which will help it to clear all its past dues, improve its operational efficiencies and reduce the tariff burden for consumers in the coming years.
- e) Working Capital Loans Under MeECL and MePDCL:

The Covid-19 pandemic has created severe liquidity crisis to distribution utilities across the country due to delay in billing as well as collection of revenue for the Utilities. The various restrictions put in place to control the effects of the virus has triggered shortages of raw material and manpower and disrupted supply chain. The State power distribution Utility has ensured smooth power flow across the State in spite of the fall in revenue collection for the licensee. It also had resort to working capital loans to meet the cash flow gap. In this regard, the Licensee requests Commission to allow interest on working loans which it availed during these times.

Over and above the interest and finance charges of MeECL and MePDCL, the licensee has also projected its other finance charges like bank guarantee based on the past year trends and requests the Commission to allow the same.

Details of Statement of loans for the capital expenditure has been given in format 7 of **Annexure I.** The summarized statement of Interest and Finance charges to be considered for the Control Period is shown in the table below:

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Opening Balance	537.58	527.87	521.52	1,992.40	1,912.07	1,859.60
Addition During the Year	28.62	26.28	1,527.33	2.09	2.16	2.23
Repayment during the year	38.33	32.63	56.46	82.41	54.63	247.04
Closing Balance	527.87	521.52	1,992.40	1,912.07	1,859.60	1,614.79
Average Interest Rate	11.26%	11.19%	10.36%	10.01%	9.93%	9.89%
Interest Accrued for the Year	60.00	58.69	130.18	195.35	187.33	171.78
Add: Other Finance Charge of MePDCL *		1.76	1.85	1.94	2.04	2.14
Add: Interest on Loan for MeECL (Apportioned) **	0.81	3.91	8.14	8.18	8.23	8.27
Total Interest and Finance Charges	60.81	64.36	140.16	205.47	197.59	182.19

 Table 5.59 : Interest and Finance Charges for Control Period 2021-24

(Rs.Crore)

\* Other Finance Charges of MePDCL includes bank and guarantee charges which are legitimate expenses of the licensee (FY 2019-20 values as per Note 28 of MePDCL accounts FY 2019-20)

\*\* 1/3<sup>rd</sup> of the total MeECL interest and finance charges projected (in the table below)

Table 5.60 :	Interest and Finance Charges for MeECL Control Period 2021-24
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						(Rs.Crore)
Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Opening Balance	-	-	190.30	190.30	190.30	190.30
Addition During the Year	-	190.30	-	-	-	-
Repayment during the year	-	-	-	-	-	-
Closing Balance	-	190.30	190.30	190.30	190.30	190.30
Average Interest Rate		9.65%	11.49%	11.49%	11.49%	11.49%
Interest Accrued for the Year	0.00	9.19	21.87	21.87	21.87	21.87
Add: Other Finance Charge of MeECL ^		2.43	2.55	2.68	2.81	2.95
Total Interest and Finance Charges of MeECL	2.43	11.74	24.42	24.54	24.68	24.82
Apportioned Total Interest and Finance Charges of MeECL	0.81	3.91	8.14	8.18	8.23	8.27

\* As per Note 22 of MeECL FY 2019-20, includes costs of raisining finance, bank and guarantee charges

The details of existing and proposed loans for MePDCL and MeECL is given in Format 7, Annexure I. MePDCL humbly prays before the Commission to kindly approve the Interest and Finance Charges as computed above tables.

# Commission's Analysis

Regulation 32 of MSERC MYT Regulations 2014 specifies-

"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 lending rate specified therein.

Provided that the outstanding loan capital shall be adjusted to make it consistent with the loan amount determined in accordance with regulation27.

The interest and finance charges attributable to capital work in progress shall be excluded.

Provided that neither penal interest nor overdue interest shall be allowed for computation of tariff.

The Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be, in the ratio of 50:50.

In case any moratorium period is availed of in any loan by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated, as repayment during those years and interest on loan capital shall be calculated accordingly."

Licensee has yet to file the petitions for True up of business for FY 2018-19 and FY 2019-20.

The Capital investment approved in the business plan for 3<sup>rd</sup> MYT control period indicates a fresh loan for Rs.3.92 Crore only against IPDS Phase II, Roof Top Solar programme and IPDS Phase I out of the approved total investment of Rs.2400.20 Crore. Remaining fund being met from Grants and contributions.

The outstanding term loans as approved for FY 2020-21 is carried forward for the MYT Control period.

The loan schedule projected in the petition vide table no.29 is not matching with the actual loan admissible for determination of ARR and Tariff with reference to the approved capital investment plan and outstanding term loans.

a) Commission in its communication dated 16<sup>th</sup> November 2020 instructed the licensee to submit proposal for smart metering plan along with the Tariff Petition. Licensee was also instructed to submit the latest audit performance statements.

Licensee has submitted details of the project "smart meters" in the MYT petition Annexure F for implementation as setting up of SCADA DMS 1.62 Lakhs smart meters and up-gradation of 2 lakhs static meters with an investment of Rs.199.15 Crore. But audited performance as called for is not filed. It is stated that MePDCL has called for Tenders in November 2020, whereas the licensee has availed state govt. Ioan of Rs.68.88 Lakhs in FY 2018-19 (note no.12.4.1 of SOA) before grounding the project attributing to interest commitment.

The actual loan availed for Rs.0.69 Crore from state Govt. for implementation of smart metering however is considered for FY 2020-21 anticipating reduction in the T&D and AT&C losses for the Discom.

- b) The state govt. loans availed for other than capital works shall not be allowed as per the Regulations.
- c) Additional loans due to CAPEX as approved in the business plan for Rs.3.92 Crore is considered for MYT period. The smart metering investment is however included in the FY 2021-22.
- d) Loans for power purchase dues payment shall not be admissible as per the Regulations.
- e) The working capital loans approved in this order for MePDCL only can be availed. MeECL is not a business centre for generating revenue for the utilities, the working capital claim for MeECL shall not be admissible.

Other interest and finance charges shall be claimed in the True up petition wherever fresh loans drawn by the licensee for which the Govt. guarantee was obtained.

The loan component claimed for IPDS project is included in the additional capex loans.

Loans projected for repayment of dues, power purchase expenditure and loans availed from Holding company claimed in the petition shall not be admissible for determination of ARR and Tariff.

Computation of Interest and Finance charges is approved in the table below.

	Course of Loop with Data of Interact	EV2020.24	EV2024 22	EV2022.22	FY 2023-24
61.No 1	Source of Loan with Rate of Interest	<b>FY2020-21</b> 20.33	<b>FY2021-22</b> 16.41	<b>FY2022-23</b> 9.26	1.54
1	8% REC Rescheduled Opening Balance		10.41		1.54
	Additions during the year	-	-	-	- 1 5 4
	Repayment	3.92	7.15	7.72	1.54
	Closing Balance	16.41	9.26	1.54	0.00
	Average Loan	18.37	12.84	5.40	0.77
	Interest Charges	1.47	1.03	0.43	0.06
3	RAPDRP-A at 9% PFC loan - Opening Balance	39.97	39.97	39.97	39.97
	Additions during the year	-	-	-	-
	Repayment	-	-	-	-
	Closing Balance	39.97	39.97	39.97	39.97
	Average Loan	39.97	39.97	39.97	39.97
	Interest Charges	3.60	3.60	3.60	3.60
	RAPDRP-B at 9% PFC loan - Opening				
4	Balance	65.84	65.84	65.84	65.84
	Additions during the year	-	-	-	-
	Repayment	-	-	-	-
	Closing Balance	65.84	65.84	65.84	65.84
	Average Loan	65.84	65.84	65.84	65.84
	Interest Charges	5.93	5.93	5.93	5.93
4	Smart Metering Loan at 9.31% - Opening Balance	0.69	0.62	0.56	0.50
	Additions during the year				
	Repayment	0.07	0.06	0.06	0.05
	Closing Balance	0.62	0.56	0.50	0.45
	Average Loan	0.66	0.57	0.53	0.48
	Interest Charges	0.06	0.05	0.05	0.04
5	Additional loan for Capex 10.33%- Opening balance	0.00	0.33	1.03	1.66
	Additions during the year	0.33	0.74	0.74	0.74
	Repayment		0.04	0.11	0.18
	Closing Balance	0.33	1.03	1.66	2.22
	Average Loan	0.33	0.68	1.34	1.94
	Interest Charges	0.017	0.07	0.13	0.19
	Total Interest Charges for Control Period	11.07	10.68	10.14	9.82

# Table 5.61 : Approved Interest and Finance charges for Control period

Commission considers Interest and Finance charges at Rs.10.68 Crore, Rs.10.14 Crore and Rs.9.82 Crore for 3<sup>rd</sup> MYT Control period FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

# 5.20 Interest on Working Capital

# Petitioner' submission

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."

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

Table 5.62 : Interest on Working Capital for Control Period FY 2021-22, FY 2022-23 and FY2023-24

(Rs. Crore)

Particulars	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
O&M for 1 Months *	13.55	15.41	20.98	22.15	23.38	24.66
Maintenance Spares **	4.67	4.89	10.17	17.14	19.29	26.10
Receivables for 2 Months ***	115.63	188.24	192.94	276.68	302.27	317.81
Total (INR Crore)	133.85	208.53	224.09	315.97	344.93	368.56
Interest Rate (%) ****	13.45%	13.20%	12.15%	12.15%	12.15%	12.15%
Interest on Working Capital	18.00	27.53	27.23	38.39	41.91	44.78

\* O&M Expenses = Employee + A&G + R&M expenses as claimed for the control period

\*\* Maintenance Spares: Average Asset Base (Table 5 of Section 4.3.3 of the petition) \* 1% \* 1.06

\*\*\*: Receivables: Net ARR / 6 (Net ARR as per Table 38 of Section 4.16 of the petition)

\*\*\*\*Short term lending rates as per SBI

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

# Commission's Analysis

As per the Regulations 34 (3(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.

 Table 5.63 : Approved Interest on Working Capital for MYT Control period

(Rs.Crore)

SI. No	Parameter	FY 2021-22	FY 2022-23	FY 2023-24
A	O & M Expenses for 12 months (Excl. MeECL Cost).	163.30	175.00	187.24
В	O&M Expenses for 1 Month (A/12)	13.61	14.58	15.60
С	Opening GFA for the year	1443.10	1596.52	1648.75
D	1% Maintenance Spares (1% of C) escalated at 6% from date of commercial operation	15.30	16.92	17.48
E	Receivables for 2 months of prevailing tariffs	137.35	153.57	153.57
F	Total working capital (B+D+E)	166.26	185.07	186.65
G	Rate of Interest as per SBAR on 1 <sup>st</sup> April of year in which the petition is filed.	12.15%	12.15%	12.15%
Н	Interest on working capital	20.20	22.49	22.68

Commission considers Interest on Working Capital at Rs.20.20 Cr, Rs.22.49 Cr. & Rs.22.68 Cr for 3<sup>rd</sup> MYT Control period FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

# 5.21 Non Tariff and Other Income

# Petitioner' submission

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

The components under non-tariff income (barring the one-time or exceptional items) for the control period has been projected by considering escalation rate of 3% on the actual expenses of FY 2018-19 and FY 2019-20. The amortization figure has been adjusted in depreciation to arrive at the net depreciation, so to avoid double counting, the same is not included in the non-tariff income head. The details of Non-Tariff Income projectionsfor the control period are mentioned in table below:

						(Rs.Crore)
Particular	FY 2018-19 (Actual)	FY 2019-20 (Provisional)	FY 2020-21 (Estimated)	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
A:Interest Income:						
From Banks	1.62	3.76	3.88	3.99	4.11	4.23
From Others	0.01	0.01	0.01	0.01	0.01	0.01
B: Other non-operating income:						
Rental and Hiring Income	0.04	0.03	0.03	0.03	0.03	0.03
Fees and Penalties	0.03	0.00	0.00	0.00	0.00	0.00
Sale of scrap, tender forms and others	0.04	0.13	0.13	0.14	0.14	0.15
Miscellaneous receipts	2.42	3.65	3.76	3.87	3.99	4.11
Refund of surcharge from NEEPCO*	65.76					
Revenue Grants/Subsidies**	17.85	13.81				
C: Other operating revenues-						
Meter Rent	3.67	3.14	3.24	3.33	3.43	3.54
Margin Money from Regulated Power	0.00	16.97	17.48	18.01	18.55	19.10
Reconnection Fees	0.02	0.01	0.01	0.01	0.01	0.01
Delayed Payment Charges Collected From Consumers***	3.29	30.19				
Rebates on Purchase of Energy	0.02	2.33	2.40	2.47	2.55	2.62
Other Charges from Consumers	8.71	10.82	11.14	11.48	11.82	12.18
Revenue from Cross Subsidy****	26.59	27.62	23.47	23.47	23.47	23.47
D: Apportioned Other Income from MeECL****	7.08	6.04	6.22	6.41	6.60	6.80
Total Non-Tariff and Other Income (A + B + C+D)	137.15	118.51	71.77	73.22	74.71	76.25

#### Table 5.64 : Other Income Projected for Control Period FY 2021-24

\* Refund of surcharge from NEEPCO: it is a one-time item, so there is no future projections for that

\*\* Revenue Grant/Subsidy: There is no clarity on subsidy to be received from State Government for the future years. The same will be adjusted in true up if received during any of years of the control period

\*\*\*Delayed Payment Charges: The same is levied on consumers who delays in electricity bill payment. If any DPC is recovered during any of years of the control period, the same will be adjusted in true up as per the audited accounts

\*\*\*\* Revenue from Cross Subsidy: The licensee expects the cross-subsidy revenue to come down in the future with open access consumers joining back the MePDCL

system. Infact, with provision of special tariff, 2 of the open access consumers have already expressed their interest to come to the MePDCL system. The licensee has projected the cross-subsidy revenue at 85% of the cross subsidy levels in FY 2019-20. \*\*\*\*\*FY 2018-19 non-tariff income of MeECL: as per Note 16 of MeECL accounts FY 2018-19 (1/3<sup>rd</sup> due to apportionment)

FY 2019-20 non-tariff income of MeECL: Note 20 of MeECL accounts FY 2019-20  $(1/3^{rd} due to apportionment)$ 

MePDCL humbly prays before the Commission to kindly approve the Non-Tariff Income for the 3<sup>rd</sup>Control Period as per the above computations.

# **Commission's Analysis**

The Licensee has not projected non tariff income towards delayed payment surcharge for FY 2020-21 and FY 2021-22 as against Rs.30.19 Crore received in FY 2019-20.

Similarly the licensee has accounted for Revenue from cross subsidy, Revenue grants for other expenditures, Amortization of grants and subsidies, Amortization of consumer contributions in the Statement of Accounts for FY 2019-20 for about Rs.30.00 Crore, but not assessed and projected for FY 2020-21 and FY 2021-22 in the petition as non tariff income.

The Licensee should have collected delayed payment surcharge on the Trade receivables realised on the previous year dues. The non assessment of non tariff income projections amounted to about Rs.60.00 Crore.

Considered 50% of the above receipts assessed under non tariff income should have been atleast Rs.100.00 Crore as against Rs.71.77 Crore projected for FY 2020-21.

The Revenue assessment for the petitioner has been increasing on account of increase of no. of connections, connected load and energy sales over a period of time.

Certainly this non projection of income would result in more revenue gap for the ensuing year.

Commission considers Rs.30.00 Crores to be assessed as non tariff and other income for the FY 2020-21 and FY 2021-22 and also remaining control period.

				(Rs.Crore)
Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Non Tariff Income Projected	71.77	73.22	74.71	76.25
Non Tariff Income Approved	101.77	103.22	104.71	106.25

#### Table 5.65 : Approved Non Tariff Income for the Control Period

Accordingly Non Tariff and other income is assessed at Rs. 101.77 Crore for FY 2020-21 and Rs.103.22 Crore Rs.104.71 Crore and Rs.106.25 Crore for 3<sup>rd</sup> MYT control period FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

# 5.22 Provision for Bad debts

# Petitioner' submission

As per the Clause 95 of the MYT Regulations, the licensee is keeping provision of bad debt for the control period at 1% of the percent receivables within the state as on 31.03.2020. The same is shown in the table below:

#### Table 5.66 : Bad and Doubtful Debt

(Rs.Crore)

Particular	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
	(Estimated)	(Projected)	(Projected)	(Projected)
Bad and Doubtful Debts	3.75	3.75	3.75	3.75

Total Receivables from Sale of Power within the State as on 31.03.2020: Rs 374.42 Cr (Note 7 (a).3- Gross Trade Receivables of FY 2019-20 Accounts) 1% of Receivables: Rs 3.75 Cr

MePDCL humbly prays before the Commission to kindly approve the bad and doubtful debts for the 3<sup>rd</sup>Control Period as per the above computations.

# Commission's Analysis

According to Regulation 95.1 of MSERC MYT Regulations 2014

"The commission may after the distribution licensee gets the receivables audited, allow a provision for bad debts not exceeding an amount equal to 1 percent receivables in the revenue requirement of the licensee."

The licensee has not filed any audit report of receivables.

Commission does not consider provision for Bad debts for determination of ARR and Tariffs.

# 5.23 Revenue from Sale of Surplus power

#### Petitioner' submission

The revenue and units for sale of surplus for FY 2018-19 and FY 2019-20 as per the accounts is given below:

Particulars	FY 2018-19	FY 2019-20
Revenue from Sale of Surplus Power (INR Cr)	173.52 *	92.01 **
Sale of Surplus Power (In MUs)	633.73	554.26
Source:	Note 18 and 18.3.1 of FY	Note 24 and 24.3 of
Source.	2018-19 Accounts	FY 2019-20 Accounts
Rate of Sale of Surplus Power (Rs/Unit)	2.74 1.66	
Average Rate of Sale of Surplus Power (Rs/Unit)	2.20	

Table 5.67 : Average Rate of Surplus Power Sale in Last 2 Years

\* Cross Subsidy Revenue of INR 27.6 Cr (Note 24.2 of accounts) has been deducted from the total, since the same pertains to the other operating revenue of MePDCL and is reflected in other income head (Section 4.13 of the petition)

\*\* Cross Subsidy Revenue of INR 27.6 Cr is not included in this, since the same pertains to the other operating revenue of MePDCL and is reflected in other income head (Section 4.13 of the petition)

The rate of surplus power for FY 2019-20 is lower compared to FY 2018-19 due to higher % of swapping (swap out) out of the total sale of surplus power outside state. Around 52% of total surplus power sold was done through swapping in FY 2019-20 (Note 24.3 of FY 2019-20 accounts) where only 39% of total power sold outside state was swapped out (Note 18.3.1 of FY 2018-19 accounts) in FY 2018-19, thus leading to higher average rate of sale of surplus power in FY 2018-19 over FY 2019-20. Thus, the licensee has considered the average rate of sale of surplus power in FY 2018-19 and FY 2019-20 for calculations in subsequent sections.

It is submitted that as per the Energy Balance approved in the Business Plan Order, MePDCL is expected to have large quantum of surplus power as shown below:

 Table 5.68 : Approved Sale of Surplus Power for Control Period

			(In MU's)
Particulars	FY 2021-22	FY 2022-23	FY 2023-24
Surplus Power in MUs from sale outside state	619. 13	511.92	472.14
Sale of Power within State	1422.7	1457.0	1492.0

However, after the licensee filed the business plan, there was a special tariff approved in Oct 2020 which will enable the licensee sale of power within the state over and above what was approved in the Business Plan. This will be due to the increase in consumption by the industries as per the commitment in the special tariff plan. Taking that into account, the licensee has revised the sale of power within the state to make the tariff projections more realistic. Subsequently, the increase in power sale within the state will lead to decrease in power sale outside the state.

Further, as stated in Section 4.7 of the petition, the licensee is considering the power procurement from NTPC Bongaigaon which is about 590 MUs. Considering the transmission losses for NER region at 3% and intrastate transmission losses at 4%, the power available at MePDCL periphery is 548.9 MUs. The same shall now be considered for sale of surplus power for the licensee (since total demand in the state has already been met to arrive SI No 4 in table 36). Thus, the revised sale of surplus for the licensee is given below:

sl. no	Particulars	FY 2021-22	FY 2022-23	FY 2023-24
1	Sale of Power within State Approved in Business Plan	1422.7	1457.0	1492.0
2	Surplus Power in MUs from sale outside state Approved in Business Plan	619. 13	511.92	472.14
3	Revised Sale of Power within State	1583.1*	1621.2**	1660.2**
4	Revised Surplus Power in MUs from sale outside state due to increase in consumption in the state***	458.7	347.7	303.9
5	Power Available at MePDCL Periphery due to NTPC Bongaigaon procurement	548.9	548.9	548.9
6	Power to be Sold Outside State (4+5)	1007.68	896.61	852.88

Table 5.69 : Revised Sale of Surplus Power for MePDCL

\* The figure has been computed in Table 40, Section 5.2 of the petition

\*\* For FY 2022-23 and FY 2023-24 figures have been arrived by taking the ratio FY

2021-22 figures

Revised Sale of Power in State FY 2022-23: Approved Sale of Power in State for FY 2022-23

\*(Revised Sale of power within state FY 2021-22/Approved Sale of Power within State FY 2021-22)

(in MU's)

Revised Sale of Power in State FY 2023-24: Approved Sale of Power in State for FY 2023-24

(Revised Sale of power within state FY 2021-22/ Approved Sale of Power within State FY 2021-22)

\*\*\* sale of surplus power outside state has reduced because sale of power within the state has increased.

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. The licensee has taken the average rate of surplus power sale outside state in last 2 year as the rate of sale of surplus power for the control period (as derived in Table 34 above) i.e Rs 2.20 per unit

The calculation of Revenue from sale of Surplus Power is shown in the table below:

Particulars	FY 2021-22 (Projected)		FY 2023-24 (Projected)
Sale of Surplus Power (MU)	1007.68	896.61	852.88
Revenue from Sale of Surplus Power (Per Unit Rate of 2.20) (INR Cr)	221.60	197.17	187.55

MePDCL submits before the Commission to kindly approve the above as revenue from sale of surplus power

# **Commission's Analysis**

Commission has considered procurement of power from NTPC Bongaigon Plant as per the Revised Energy Balance for 3<sup>rd</sup> MYT Control period FY 2021-22 to FY 2023-24.

The revised connected load and sales within the state submitted in the additional information dated 29<sup>th</sup> January 2021 revealed energy sales at 1470.79 MU and the same is considered in the Energy balance analysis by the commission.

The Energy balance analysed by the commission vide table no.5.20 in this order for surplus power to be accounted for during the MYT Control period.

If the Intended power procurement from NTPC Bongaigaon plant materialised as stated in table 36 of the petition during the control period, the licensee shall strictly follow the merit order procurement by ensuring day ahead assessment of demand and ensure maximum rate for sale of surplus energy.

Commission considered surplus energy as analysed in the energy balance table for the control period shall be priced at least weighed average cost of power purchase.

Accordingly commission considers Revenue from sale of surplus energy as computed in the table below.

Particulars	FY 2021-22	FY 2022-23	FY 2023-24
Surplus Energy Grossed Up (MU)	1262.28	1100.48	1005.80
Revenue from Sale of Surplus Power (Per Unit Rate of 2.93 ) (INR Cr)	369.85	-	-
Revenue from Sale of Surplus Power (Per Unit Rate of 3.68) (INR Cr)	-	404.98	
Revenue from Sale of Surplus Power (Per Unit Rate of 3.85) (INR Cr)	-	-	387.23
Revenue from Sale of Surplus power	369.85	404.98	387.23

Table 5.71 : Revenue from Sale of Surplus Energy

Commission considers Revenue from sale of surplus power at Rs.369.85 Crore, Rs.404.98 crore and Rs.387.23 Crore for 3<sup>rd</sup> MYT Control period FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

# 5.24 Annual Revenue Requirement for each year of the control period

# Petitioner' submission

Based on the above submissions, the ARR for each year of the Control Period would be as shown in the following table below. The licensee requests the Commission to approve the ARR for FY 2021-22, FY 2022-23, FY 2023-24 as claimed by it in the petition.

			(Rs Cr)
Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)
Power Purchase Cost	1139.15	1210.59	1267.96
Transmission Charges (PGCIL)	98.93	103.87	109.07
Transmission Charges (MePTCL)	156.43	195.91	209.62
Employee Expenses	226.80	240.43	254.67
Repair & Maintenance Expenses	6.51	6.83	7.17
Administration & General Expenses	32.50	33.26	34.05
Depreciation*	14.42	19.65	19.62
Interest and Finance Charges	205.47	197.59	182.19
Interest on Working Capital	38.39	41.91	44.78
Return on Equity	32.54	31.68	37.77
Bad & Doubtful Debt	3.75	3.75	3.75
Gross Annual Revenue Requirement (ARR)	1954.88	2085.48	2170.64
Less: Other Income**	73.22	74.71	76.25
Less: Sale of Surplus Power	221.60	197.17	187.55
Net ARR	1660.06	1813.60	1906.84

Table 5.72 : ARR projected for Control Period FY 2021-22 to FY 2023-24

\* Amortization Removed and Part of Depreciation

\*\* Amortization adjusted in Depreciation

# **Commission's Analysis**

Commission after detailed analysis of the petition, taking into consideration the statement of accounts for FY 2018-19 certified by the statutory auditors, un audited SOA for FY 2019-20, the additional information/data filed on 29<sup>th</sup> January 2021 and subsequent filings, the minutes of the public hearing and the minutes of the state advisory committee has computed the ARR for 3<sup>rd</sup> MYT control period FY 2021-22, FY 2022-23 and FY 2023-24 as per the MSERC MYT Regulations 2014 as depicted in the table below.

		Fil	ed by MePD	CL	Approve	ed by the Con	nmission
SI. No	Particulars	FY 2021-22 (Projected)	FY 2022-23 (Projected)	FY 2023-24 (Projected)	FY 2021-22 (Estimated)	FY 2022-23 (Estimated)	FY 2023-24 (Estimated)
1	Power Purchase Cost	1139.15	1210.59	1267.96	895.91	1100.14	1150.88
2	Transmission Charges (PGCIL)	98.93	103.87	109.07	62.81	68.38	71.80
3	Transmission Charges (MePTCL)	156.43	195.91	209.62	52.44	55.06	57.81
4	Employee Expenses	226.80	240.43	254.67	150.88	162.27	174.19
5	Repair & Maintenance Expenses	6.51	6.83	7.17	6.27	6.46	6.67
6	Administration & General Expenses	32.50	33.26	34.05	12.24	12.63	13.02
7	Depreciation*	14.42	19.65	19.62	0.00	0.00	0.00
8	Interest and Finance Charges	205.47	197.59	182.19	10.68	10.14	9.82
9	Interest on Working Capital	38.39	41.91	44.78	20.20	22.49	22.68
10	Return on Equity	32.54	31.68	37.77	0.00	0.00	0.00
11	Bad & Doubtful Debt	3.75	3.75	3.75	0.00	0.00	0.00
12	Gross Annual Revenue Requirement (ARR)	1954.88	2085.48	2170.64	1211.43	1437.57	1506.87
13	Less: Non Tariff and Other Income	73.22	74.71	76.25	103.22	104.71	106.25
14	Less: Sale of Surplus Power	221.60	197.17	187.55	369.85	404.98	387.23
15	Net ARR	1660.06	1813.60	1906.84	738.36	927.88	1013.39

# Table 5.73 : Approved ARR for the Control Period for FY 2021-22 to FY 2023-24

# (Rs.Crore)

Commission approves ARR for 3<sup>rd</sup> MYT control period at Rs. 738.36 Crore, Rs.927.88 Crore and Rs.1013.39 crore for FY 2021-22, FY 2022-23 and FY 2023-24 respectively.

# 5.25 Determination of Retail Supply Tariff for FY 2021-22

# 5.25.1 Total Gap recovered through Tariff in FY 2021-22

# Petitioner' submission

It may be noted that the ARR as well as the gap computed in the true up of FY 2017-18 is to be cumulatively recovered through the tariff of FY 2021-22.The Licensee had filed the petitions for review petition on true up order for FY 2016-17 order for which the orders are due from the Commission. Hence the True up Gap of FY 2016-17 resulting from the review is not included here and may be added if the order is released during the period of consideration of this petition.

Thus, the net Revenue Requirement for FY 2021-22 would be as shown below:

Table 5.74 : Net ARR for FY 2021-22


SI No	Particulars	Amount
1	Revised ARR of FY 2021-22	1,660.06
2	Additional Claim as per True Up FY 2017-18 Order	112.05
	Total Revenue Requirement for FY 2021-22	1,772.11

Thus, the retail supply tariff for FY 2021-22 would be determined based on the net Revenue Requirement as computed above.

# **Commission's Analysis**

Commission has approved Net ARR after taking into consideration the non tariff and other income and Revenue from sale of surplus power for MYT control period vide table no 5.71.

The Revenue requirement is assessed for FY 2021-22 taking into consideration the revenue gap approved for FY 2017-18 as detailed in the table below

# Table 5.75 : ARR for FY 2021-22

(Rs.Crore)

(Rs.Crore)

SI No	Particulars	Amount
1	Net ARR of FY 2021-22	738.36
2	Add: Revenue Gap for FY 2017-18 True up (13.10.2020)	112.05
3	Add: Revenue Gap for FY 2017-18 Review	23.64
4	Total Revenue Requirement for FY 2021-22	874.05

Commission approves Revenue requirement for FY 2021-22 at Rs.874.05 Crore for determination of retail Tariff.

#### 5.25.2 Sales and Connected Load in the State

#### **Petitioner's Submission**

The Commission in its Business Plan Order has approved the connected load and sale within the state for the next control period. However, with the introduction of special tariff, which came after the submission of Business Plan, the licensee is modifying the total sale and connected loan for FY 2021-22 to make the tariff and revenue projections more realistic.

The table below shows the connected load and sale within the state for FY 2021-22:

SI.	Category	Connected Load (MVA)	Sale within State (MUs)
A)	LT Category		
1	Kutir Jyoti	88.43	85.11
2	Domestic	475.00	475.00
3	Commercial	79.00	79.00
4	Industrial LT	11.00	6.08
5	Public Lighting	0.00	0.12
6	LED Fittings	0.00	
7	Water supply	7.00	11.77
8	General Purpose	18.00	17.52
9	Agriculture	0.00	0.58
10	Crematorium	0.15	0.21
B)	HT Category		
1	Domestic (HT)	19.00	24.81
2	Commercial (HT)	32.00	27.72
3	Industrial (HT)		
a)	Special Tariff	42.80	81.35
b)	Other Industries	141.40	144.39
4	Ferro Alloy	11.00	35.03
5	Public water supply	9.00	32.84
6	General Purpose / BS	46.00	96.96
C)	EHT Category		
1	Industrial EHT		
a)	Special Tariff	14.30	27.18
b)	Other Industries	10.70	116.34
2	Ferro Alloy	61.79	321.07
	Total	1066.57	1583.08

Table 5.76 : Revised Connected Load and Sale within State for FY 2021-22

The changes made to the approved connected load and sale within the state has been highlighted below:

As on date, a total of 10 no. of the industrial (including 2 Open Access) consumers have applied to avail the special tariff. The letter expressing their interest has been attached as Annexure J

- a) 6 of the existing HT Industries are included in this list adding to 25.6 MVA and 2
   OA consumers adding to 17.2 MVA are part of this list. Thus, the connected load for Special Tariff Industries under HT is 42.80 MVA.
- b) The Commission had approved connected load of 167 MVA for HT Industries. So, the connected load for industries other than special tariff is 141.40 MVA (167 MVA – 25.60 MVA for 6 existing industries who are opting for special tariff)
- c) In EHT: 2 industries are availing this special tariff adding to 14.3 MVA connected load.
- d) Sales in MUs for Special tariff HT and EHT have been arrived based on their current load factor of 22%. Any increase in consumption and subsequent revenue recovery shall be adjusted in the true up.
- e) Sales in MUs for HT Industries other than special tariff [SI. No. 3) b in the HT Category in the above table] have been arrived at in ratio of its revised connected load with respect to its earlier connected load i.e corresponding MUs revised from 170.53 MUs when connected load changes from 167 MVA to 141.40 MVA.
- f) Apart from Special Tariff HT, EHT and others Industries HT and EHT, other categories connected load and sale of power is the same as approved in the Business Plan Order.

The above connected load and sale of power has been used in the subsequent section to calculate the revenue at existing and proposed tariff. The licensee requests the Commission to accept the modifications in connected load and sale of power within the state to accommodate the impact of special tariff.

# **Commission's Analysis**

The Connected load and energy sales filed in the petition found to be incomplete as the commission had approved special Tariff for industrial consumers effective from 01.11.2020. Thus the projected connected load and energy sales should have been split partially in the FY 2020-21 and FY 2021-22 (estimates) also with reference to the connected load and energy sales for 3<sup>rd</sup> MYT control period should have been stated. Commission has called for further additional information/data requiring the data gaps in respect of connected load and energy sales for FY 2021-22.

The Licensee has filed the additional information/data called for in the annexure I & II vide letter dated 29<sup>th</sup> January 2021. The licensee has not projected connected load for LT Agriculture and public lighting categories, whereas the connected load against those categories was filed for the Tariff orders for FY 2020-21 at 0.28 MVA and 0.39 MVA

According to the revised data, the connected load and energy sales adopted for computation of category wise connected load and energy sales including the missing connected load for LT Agriculture and Public Lighting for FY 2021-22 at the same level of FY 2020-21 in the table below.

Sl.No	Category	Connected Load (MVA)	Sale within State (MUs)
A)	LT Category		
1	Domestic(DLT)	475.00	400.61
2	Commercial (CLT)	79.00	75.39
3	Industrial LT (ILT)	11.00	6.08
4	Agriculture (Ape)	0.28	0.58
5	Public Lighting (PL)	0.39	0.12
6	Water supply (WSLT)	7.00	11.77
7	General Purpose(GP)	18.00	17.52
8	Kutir jyoti (KJT)	88.43	85.11
9	Crematorium (CRM)	0.15	0.21
B)	HT Category		
1	Domestic (HT)	19.00	24.81
2	water supply	9.00	32.84
3	Bulk Supply	46.00	96.96
4	Commercial (HT)	32.00	27.72
5	Industrial (HT)	141.40	144.39
6	Ferro Alloys	11.00	35.03
7	Special Tariff	42.80	74.24
C)	EHT Category		
1	Industrial EHT	10.70	52.98
2	Ferro Alloys	56.00	341.07
3)	Special Tariff	25.00	43.36
	-		
	Total	1072.15	1470.79

 Table 5.77 : Approved Connected Load and Sale within State for FY 2021-22

Commission approves the connected load at 1072.15 MVA and Energy sales at 1470.79 MU for FY 2021-22.

# 5.25.3 Revenue at Existing Tariffs

#### Petitioner's Submission

Based on the existing tariff rates for FY 2020-21, connected load and sale of power within state as shown above, the licensee has estimated the revenue recovery at existing tariffs.

Slab Wise Consumption for Domestic (LT) and Commercial (LT) Consumer Categories has been taken as per ratio used in FY 2020-21 tariff filing which was subsequently approved by the Commission in the tariff order. (Table 5.43 of the FY 2020-21 Tariff order, DLT and CLT revenue from existing tariff is in line with the revenue filed in tariff petition using the specific slab wise consumption.) The revenue due to energy charges from existing tariff for DLT and CLT using the same slab wise consumption is shown below:

For **Domestic LT**, revenue from energy charges at existing tariff:

	Slab-Wise Consumption	MUs Slab Wise	Energy Tariff FY 2020-21 (Rs/Unit)	Revenue from Energy Charge FY 2021-22 at existing Tariff (In Rs Cr)
First 100 Units	20.00%	80.12	3.70	29.65
Next 100 Units	13.3%	53.28	4.20	22.38
Above 200 Units	66.7%	267.21	5.70	152.31
Total		400.61		204.33

For **Commercial LT**, revenue from energy charges at existing tariff:

	Slab-Wise Consumption	MUs Slab Wise	Energy Tariff FY 2021-22 (Rs/Unit)	Revenue from Energy Charge FY 2021-22 at existing Tariff (In Rs Cr)
First 100 Units	14.6%	11.01	6.10	6.71
Above 100 Units	85.4%	64.38	7.30	47.00
Total		75.39		53.71

The revenue at existing tariff is shown in the table below with the detailed calculations:

SI.	Category	Connected Load (MVA)	Tariff Fixed Charges (Rs/KW/Month)	Fixed Charges Revenue (Rs Cr)	Energy Tariff (Rs/KWh)	MUs Approved	Avg Tariff (Rs/Unit)	Energy Charge Revenue (INR Cr)	Total Revenue (INR Cr)
		1	2	3	4	5	6	7	8=7+3
А	LT Category								
1	Kutir jyoti	88.43			3.65	85.11	3.74		31.83
2	Domestic	475.00	60	30.78		475.00		204.33	235.11
3	Commercial	79.00	120	10.24		79.00		53.71	63.95
4	Industrial LT	11.00	120	1.43	6.00	6.08		3.65	5.07
5	Public Lighting	0.00	120	0.00	6.50	0.12		0.08	0.08
6	LED Fittings	0.00	60	0.00	3.70			0.00	0.00
7	Water supply	7.00	120	0.91	6.70	11.77		7.89	8.79
8	General Purpose	18.00	120	2.33	6.90	17.52		12.09	14.42
9	Agriculture	0.00	110	0.00	3.00	0.58		0.17	0.17
10	Crematorium	0.15	7000		4.1	0.21	4.45		0.09
			Rs./kVA/month		Rs./kWAh				
В	HT Category								
1	Domestic (HT)	19.00	230	3.93	6.20	24.81		15.38	19.32
2	General Purpose / BS	46.00	230	9.52	6.20	96.96		60.12	69.64
					Rs./kVAh				
3	Commercial (HT)	32.00	230	6.62	6.60	27.72		20.33	26.95
4	Industrial (HT)								
a)	Special Tariff	42.80			4.90	81.35		44.29	44.29
b)	Other Industries	141.40	230	29.27	6.60	144.39		105.89	135.15
5	Ferro Alloy	11.00	200	1.98	4.46	35.03		17.36	19.34
6	Public water supply	9.00	230	1.86	6.50	32.84		23.72	25.58
С	EHT Category								
1	Industrial EHT								
a)	Special Tariff	14.30			4.90	27.18		14.80	14.80
b)	Other Industries	10.70	230	2.21	6.20	116.34		80.15	82.36
2	Ferro Alloy	61.79	200	11.12	4.36	321.07		155.54	166.66
	Total	1066.57		112.21		1583.08		819.48	963.62

Table 5.80 : Revenue for FY 2021-22 at Existing Tariff

#### **Please Note:**

- a) The connected load and sale of power within the state has been taken in line with figures and justification given in Section 5.2 of the petition
- b) These connected load and fixed charge tariff have been used to arrive at revenue from fixed charges. The sale of power within state and energy charge tariff has been used to arrive at revenue from energy charges
- c) for Kutir Jyoti, Crematorium, average tariff of FY 2020-21 as given in Table 5.43 of the Distribution FY 2020-21 tariff order has been used to calculate the revenue from these categories
- d) Unit Consumption for Special tariff categories has been determined by assuming load factor of 22% as also mentioned in Section 5.2 of the petition

- e) Revenue from Energy Charges for Domestic (LT) and Commercial (LT) has been calculated in the table 41 and 42 of petition.
- f) For Revenue from fixed charges calculations in HT and EHT: 75% of the contract demand (connected load) has been used for calculations. This is as per the assessment of the billing demand for HT and EHT consumers where the billing demand charged to a consumer is at least 75% of the contract demand. The excerpt from the tariff booklet FY 2020-21 Section 4 is attached as Annexure K.
- g) For revenue from tariff for HT and EHT (SI No A and B in the table above): Due adjustments of power factor has to be made to fixed and energy tariffs of categories with KVAh billing to arrive at revenue at existing tariff.

The power factor used for calculations is 0.9 (As per Supply Code Regulations, 2018).

# **Commission's Analysis**

The Revenue from Existing Tariffs has submitted by the Licensee vide note a,b,c,e,f and g has been considered. For "d" the licensee shall absorb impact of deficit in the Revenues on account of the special Tariff MoU.

Licensee has submitted that connected load in respect of domestic and non domestic category in the sales ratio breakup is not possible. The breakup figures filed vide table 41 and 42 of the petition is considered for computation of Revenue at existing Tariffs.

The Revenue at existing Tariffs with reference to no. of consumers, connected load and Energy sales is computed as adjusted to the additional information/data filed by the petitioner in the table below.

SI. No	Category	No. of Consumers	Connected Load (MVA)	KW/KVA	Energy (MU)	Total Revenue (Rs. Cr.)	Avg. Rate (Rs. Unit)
A)	LT Category						
1	Domestic(DLT)	343944	475.00	427500	400.61	235.11	5.87
2	Commercial (CLT)	31692	79.00	71100	75.39	63.95	8.48
3	Industrial LT (ILT)	695	11.00	9900	6.08	5.07	8.34
4	Agriculture (Ape)	228	0.28	252	0.58	0.21	3.57
5	Public Lighting (PL)	60	0.39	351	0.12	0.13	10.71
6	Water supply (WSLT)	476	7.00	6300	11.77	8.79	7.47
7	General Purpose(GP)	2492	18.00	16200	17.52	14.42	8.23
8	Kutir jyoti (KJT)	268477	88.43	79587	85.11	41.10	4.83
9	Crematorium (CRM)	1	0.15	135	0.21	0.10	4.50
B)	HT Category						
1	Domestic (HT)	95	19.00	19000	24.81	20.63	8.31
2	water supply	27	9.00	9000	32.84	23.83	7.26
3	Bulk Supply	236	46.00	46000	96.96	72.81	7.51
4	Commercial (HT)	167	32.00	32000	27.72	27.13	9.79
5	Industrial (HT)	124	141.40	141400	144.39	134.32	9.30
6	Ferro Alloys	2	11.00	11000	35.03	18.26	5.21
7	Special Tariff	8	42.80	42800	74.24	36.38	4.90
C)	EHT Category						
1	Industrial	2	10.70	10700	52.98	35.80	6.76
2	Ferro Alloys	4	56.00	56000	341.07	162.15	4.75
3	Special Tariff	3	25.00	25000	43.36	21.25	4.90
	Grand Total	648733	1072.15	1004225	1470.79	921.44	6.26

Table 5.81 : Revenue from Existing Tariffs for FY 2021-22

# 5.25.4 Revenue Gap for FY 2021-22 at Existing Tariffs

# **Petitioner's Submission**

Based on the above submissions, the revenue gap for FY 2021-22 at existing tariff has been arrived at as follows:

Table 5.82 : Revenue Gap at existing tariff of FY 2021-22

Particulars	Amount in Rs Cr
Total Revenue Requirement in FY 2021-22	1,772.11
Less: Projected Revenue at Existing Tariff Rates (As per Section 5.3.3)	963.62
Revenue Gap for FY 2021-22 at Existing Tariff	808.49

# **Commission's Analysis**

The Revenue at Existing tariffs is computed in table no.5.81 worked out to Rs.921.44 Crore as against the Net ARR including the Revenue Gap approved for FY 2017-18 amounted to Rs.874.05 Crore. Thus it is a surplus of Revenue by Rs.47.39 Crore for FY 2021-22 as depicted in the Table below.

Table 5.83 : Approved Revenue Gap at existing tariffs of FY 2021-22

Particulars	Amount in Rs Cr
Total Revenue Requirement in FY 2021-22	874.05
Less: Revenue at Existing Tariff Rates	921.44
Revenue Surplus for FY 2021-22	47.39

Commission approves a Revenue Surplus of Rs.47.39 Crore with the existing tariffs for FY 2021-22.

# 5.25.5 Retail Supply Tariff Rates for FY 2021-22 & Amendments to General Conditions of Tariff Supply

# **Petitioner's Submission**

From the previous section, it is evident that in order to meet the projected revenue gap of Rs. 808.49 Cr, the existing tariff rates need to be enhanced by around 84%.Since this would be a huge tariff shock to the consumers, MePDCL proposes that there may be a tariff hike in the range of 15%-25% for the consumer categories and the remaining amount may be treated as regulatory asset to be liquidated over the future years with the appropriate/applicable carrying cost based on the approved amount by the Commission.

Provisions of National Tariff Policy 2016 and its subsequent proposed amendments state that tariff should progressively reflects the cost of supply of electricity and Appropriate Commission would ensure that cross-subsidies are reduced and the tariff for all consumer categories are brought within ±20% of the average cost of supply.

In this regard, the licensee is proposing tariff hikes for consumer categories in a way that will help reach the target of tariff for all within  $\pm 20\%$  of the average cost of supply in the near future.

Based on the table 43 in section 5.3.3, it can be clearly seen that there are consumer categories who had tariff higher than 20% of the average tariff and categories who have tariff lower than 20% of average tariff. The licensee is proposing the following tariff hikes for the ensuing year to help it achieve its target of tariff for all within  $\pm$ 20% of the average cost of supply in the near future and also reduce the levels of cross subsidy gradually.

Tariff Categories	Existing Tariff	Tariff Hikes Proposed	
Commercial (LT, HT), Water Supply (LT, HT),	Hisborthan N 200/ of Augusta Tariff	1 50/	
General Purpose (LT). Industrial (HT), Domestic (HT)	Higher than > + 20% of Average Tariff	15%	
Kutir Jyoti, Agriculture	< (-) 20% of Average Tariff	25%	
All Other Categories	Within ±20% of Average Tariff	20%	

\*\*Please Note: Some of the exceptions to the above tariff hike proposed is shown below of table 46.

# **Commission's Analysis**

Commission has assessed the ARR for FY 2021-22 at Rs.874.05 Crore including Rs.112.05 Crore Revenue gap for FY 2017-18 and Revenue Gap approved in Review Order for Rs.23.64 Crore for FY 2017-18 as against the Revenue at existing Tariffs assessed at Rs.921.44 Crore. Thus consideration of increase in the Tariffs does not require for FY 2021-22.

# 5.25.6 Proposed Tariff for FY 2021-22

#### **Petitioner's Submission**

		Existing T	ariff	Proposed Tariff		
Sl.No	Category	Fixed Charges (Rs./Conn/kW)	Energy Charges (Rs/KWh)	Fixed Charges (Rs./Conn/kW)	Energy Charges (Rs/KWh)	
	Low Tension	Rs./KW/Month	Rs./kWh	Rs./KW/Month	Rs./kWh	
1	Kutir Jyoti					
	Unmetered (Per Connection)	170.00	-	215		
	Metered	-	3.65		4.55	
2	Domestic	-	-			
	First 100Units	60	3.7	70	4.45	
	Next 100Units	60.00	4.2	70	5.05	
	Above 200Units	60.00	5.7	70	6.85	
3	Commercial					
	First 100Units	120	6.1	140	7.00	
	Above 100Units	120	7.3	140	8.40	
4	LT Industrial	120	6	145	7.20	
5	Public Lighting(Metered)	120	6.5	145	7.80	
6	LED fittings and Lamps	60	3.7	70	4.45	
7	Public Water Supply	120	6.7	140	7.70	
8	General Purpose	120	6.90	140	7.95	
9	Agriculture	110	3	140	3.75	
11	Electric Vehicle Charging Station	120	10.09		7.00	
	Cromotorium	Rs./connection/ Month	4.1	8400	4.00	
11	Crematorium	7000.00	4.1	8400	4.90	
	High Tension	Rs./kVA/month	Rs/KWh	Rs./kVA/month	Rs./kVAh	
12	Domestic	230.00	6.2	265	7.15	
13	General Purpose/Bulk Supply	230.00	6.2	275	7.45	
14	Electric Vehicle Charging Station	230	10.97		8.10	
			Rs./kVAh			
15	Commercial	230.00	6.6	265	7.60	
16	Industrial		5.0			
a)	Special Tariff		4.9		4.90	
b)	Other HT Industries	230.00	6.6	265	7.60	
17	Ferro Alloy	200	4.46	265	7.60	
18	Public Water Supply	230	6.5	265	7.45	
	Extra High Tension	Rs./kVA/month	Rs./kVAh	Rs./kVA/month	Rs./kVAh	
19	Industrial					
a)	Special Tariff		4.9		4.90	
b)	Other EHT Industries	230	6.2	275	7.45	
20	Ferro Alloy	200	4.36	275	7.45	

#### Table 5.85 : Proposed Tariff for FY 2021-22

# Commission's Analysis:

As notified in the previous paragraph, the existing Tariffs suffice to meet the Annual Revenue Requirement for FY 2021-22, the proposal for revision of Tariffs is not considered.

# 5.25.7 Time of the Day Tariff

# **Petitioner's Submission**

#### Table 5.86 : Proposed Time of Day Tariff for FY 2021-22

Time Slot	HT Industrial EHT Indust		
0600 hrs to 1700 hrs (normal)	As Approved		
1700-2300 hrs (peak)	+20% of Normal		
2300-0600 hrs (night off-peak)	-15% of Normal		

# **Commission's Analysis**

Commission considers existing Time of the day tariffs to be implemented for FY 2021-22.

# 5.25.8 KVAH billing for HT and EHT Consumers

# **Petitioner's Submission**

As of now, all the EHT categories and most of HT consumer categories in the state already have KVAh billing system (as seen in existing tariff column in Table 46). In order to maintain a system power factor at desired levels (between 0.9 - 1.0), the licensee requests the Commission to approve the KVAh tariff for all the remaining category of HT consumers (Domestic HT, General Purpose HT and Electric Vehicle Charging Stations HT). Other categories of HT and all categories under EHT are already billed under KVAh billing.

With this proposal, all categories of HT and EHT consumers will have KVAh billing from FY 2021-22. The licensee is targeting to install smart meters across the whole state (tendering works under process), and this will help the licensee implement the KVAh billing in the state.

# **Commission's Analysis**

The licensee has contemplated implementation of smart metering system in the 3<sup>rd</sup> MYT Control period. The licensee is directed to submit the action plan for

implementation of smart metering and proposed KVAH billing including financial implication to the Discom for taking a decision by the commission. MePDCL shall file petition seeking amendment to the supply code Regulations. The existing billing system may be continued till the above information/data is made available to the commission.

# 5.25.9 Special Tariff for HT and EHT Consumers

# **Petitioner's Submission**

The Commission has approved a special tariff via order dated 19 Oct 2020 for BIA consumers as per the MoU signed between the MePDCL and BIA. MePDCL will be supplying power to them at special tariff of Rs 4.90 per KVAh and with a commitment from these consumers to maintain a load factor of 68%.

Thus, in line with the order, the licensee is creating a subcategory under Industrial HT and EHT for this special tariff group. In line with the terms of the MoU, the tariff for the above category is Rs 4.90 per KVAh.

# **Commission's Analysis**

The implementation of Special Tariff for BIA industrial HT and EHT consumers effective from 1<sup>st</sup> November 2020 at Rs.4.90 Ps/Kwh certainly results in revenue gap between Average cost of supply and Retail Tariff to a tune of Rs.1.70 Ps/kwh which shall be made good by assessing energy charges for a minimum of 68% of the load factor consumption as also a penal charge of Rs.1.20 ps/kwh for HT Consumers and Rs.1.00ps/kwh for EHT consumers who do not comply with the conditions to maintain load factor of 68% shall be levied.

In this respect the National Tariff policy 2016 stipulates that the licensee shall not claim additional Revenue Requirement on this account in accordance with section 62 of Electricity Act 2003.

The licensee shall review the consumption pattern of the BIA industrial consumers to whom special tariff made applicable in every billing cycle to ensure maximum Revenue realization.

#### 5.25.10 Tariff for Ferro Alloys HT and EHT Consumers

#### **Petitioner's Submission**

The Commission in its order dated 10 Sept 2018 had approved a separate tariff category for Ferro Alloy (HT and EHT Consumers) with the amended tariff as follows. The tariff was kept unchanged by the Commission for the year FY 2020-21

Particulars	Fixed Charges (Rs./Conn/kVA)	Energy Charges (Rs./kVah)
Ferro Alloy HT	200	4.46
Ferro Alloy EHT	200	4.36

The Licensee raised concerns in subsequent correspondences with the Commission on the impact of such revision of tariff leading to reduction of revenue and the increasing gap in revenue and cost. However, the Commission had stated the following in the order dated 10 Sept 2018:

"The HTSS (Ferro alloy) consumers will make all efforts to ensure a load factor of at least 85%. Failure to do so may make it necessary for the Commission to specify a higher tariff for such defaulters when the next or subsequent Tariff order is passed"

Based on the commercial data, the Licensee has found out that many of the consumers have a load factor of less than 80% in the last 12 months (April2019 – March 2020). Infact, the combined average load factor is less than 75% for FY 2019-20 for the Ferro Alloy consumer categories. This is contrary to the claim of these industries in the past, when they have stated they maintain a load factor of approx. 85%. The lower than expected load factor maintained by these industries is causing huge revenue shortfall to the already ailing Licensee leading to widening of ARR gap to higher levels.

In the view of the above submissions, to avoid the revenue burden to other category of consumers because of subsidized tariff to Ferro Alloy consumers, the licensee is proposing tariff for Ferro Alloy in HT and EHT category similar to the one proposed for industries in HT and EHT category respectively.

# **Commission's Analysis**

Commission vide Order dated 10/09/2018 passed in Case No.9A/2017 of 2018, directed Ferro Alloy consumers to make an effort to ensure load factor of 85%. Whereas, the Licensee stated that the Ferro Alloys consumers load factor is less than 75% during the FY 2019-20.

The Special Tariff order dated 19.10.2020 passed in Case No. 10/2020 as per MoU dated 07.10.2020 does not provide for consideration of subsequent application.

The licensee is directed to file a factual note in comparison of Ferro Alloys consumers and BIA industrial consumers for appropriate decision. Regarding MYT tariff, Load factor rebate, penalty, etc for Ferro alloy, the same may be taken up under separate hearing.

# 5.25.11 Tariff for Electric Vehicle Charging Stations

# **Petitioner's Submission**

The Ministry of Power in its notification dated 14 Dec 2018 has capped the tariff for Electric Vehicle Charging Stations at not more than 15% of the Average Cost of Supply for the discom. Since the implementation of EV charging infrastructure is at a very nascent stage in the state, it is not possible to estimate the load and revenue for the tariff category of electric vehicle charging stations for the ensuing year. Thus, the licensee is proposing one-part tariff as an interim arrangement for the tariff category of Electric Vehicle Charging Stations.

The average tariff for FY 2021-22 in the state at proposed rates is Rs 7.80 per KWh (Table 50)

LT Electric Vehicle Charging Stations at average tariff for FY 2021-22: Rs 7.00 per KVAh (after making power factor adjustment to arrive at KVAh billing). There is no fixed charge proposed for this category.

HT Electric Vehicle Charging Stations at 1.15 times the average tariff for FY 2021-22: Rs 8.10 per KVAh (after making power factor adjustment to arrive at KVAh billing). There is no fixed charge proposed for this category. The licensee on getting further clarity on the load and consumption pattern of Electric Vehicle Charging Stations in coming years will revise the tariff into two-part tariff in the future years.

# **Commission's Analysis**

Commission had notified the tariff rates for electric vehicle charging stations as proposed by the licensee in the Tariff orders for FY 2020-21.

The licensee was asked to file status report about the entrepreneurs seeking electric supply for electric vehicle charging stations registered with the Discom by 30<sup>th</sup> June 2020.

The licensee's request to reduce the tariffs pronounced for the FY 2020-21, shall not be altered in the absence of status report with connected load, no. of consumers and estimated Revenue under each category.

The licensee shall submit the status report as called for in order to classify the Tariff Category and consider the proposal for Reduction of Tariffs by the commission. The Tariffs already notified shall prevail for FY 2021-22.

# 5.25.12 Proposed Amendments to the General Conditions of Supply (For all categories of Consumers)

# **Petitioner's Submission**

Surcharge for late payment of bills: If payment is not received within due date surcharge @ 2% at simple interest on the outstanding principal amount for each 30 days successive period or part thereof will be charged, until the amount is paid in full.

The licensee is proposing the above amendment to encourage prompt payment by the consumers in the state. This will help the licensee reduce its cash flow gap and working capital deficiencies in the future.

Moreover, the present rate of 1% at simple interest is lower compared to other neighboring states. Also, the delayed payment surcharge to be paid by the licensee to state generating and transmission companies is 1.25% per month as per the MSERC MYT Regulations, 2014 and 1.50% per month to the central generating and transmission companies as per CERC (Terms and Conditions of Tariff) Regulations, 2019. It also important to note that, the surcharge determined by SERCs in states of

Tripura, Manipur and Mizoram, to be levied by discoms on delayed payments is 2% per month.

Thus, the licensee is proposing delayed payment charges @ 2% at simple interest for the consumers.

#### **Commission's Analysis**

The existing Regulation 9.1 of supply code Regulations 2018 provide for levy and collection of surcharge at 1% on the outstanding amount for each 30 days are part thereof.

Whereas the licensee has not projected any receipts in the ARR for 3<sup>rd</sup> MYT control period, under the Non Tariff and other income head towards delayed payment charges vide table no.32 of the petition.

The licensee shall file separate petition seeking amendments to the general conditions of supply for all categories of consumers with regard to surcharge for late payment of bills.

The licensee shall ensure proper billing of the consumers as per the supply code Regulations 2018. The Licensee shall file a petition suggesting a comprehensive amendment to the Regulations wherever necessary under MSERC MYT Regulations 2014 for commission's review and appropriate action on the suggested amendments.

# 5.25.13 Revenue Estimates for FY 2021-22 at Proposed Tariffs

# **Petitioner's Submission**

Based on the proposed tariff rates for FY 2020-21, connected load and sale of power within state as shown in Section 5.2, the licensee is estimating the revenue recovery at proposed tariff.

As stated in Section 5.3, the licensee is taking the Slab Wise Consumption for Domestic (LT) and Commercial (LT) Consumer Categories as per ratio used in FY 2020-21 tariff filing which was subsequently approved by the Commission in the tariff order. (Table 5.43 of the FY 2020-21 Tariff order, DLT and CLT revenue from existing tariff is in line with the revenue filed in tariff petition using a specific slab wise consumption.) Thus, using that, the revenue due to energy charges from

proposed tariff for DLT and CLT using the same slab wise consumption is shown below:

For **Domestic LT**, revenue from energy charges at proposed tariff:

	Slab-Wise Consumption	MUs Slab Wise	Proposed Energy Tariff FY 2021-22 (Rs/Unit)	Revenue from Energy Charge FY 2021-22 at Proposed Tariff (In Rs Cr)
First 100 Units	20.00%	80.12	4.45	35.65
Next 100 Units	13.3%	53.28	5.05	26.91
Above 200 Units	66.7%	267.21	6.85	183.04
Total		400.61		245.6

For **Commercial LT**, revenue from energy charges at proposed tariff:

#### Table 5.89 : Revenue FY 2021-22 from Energy Charges for Commercial LT at Proposed Tariff

	Slab-Wise Consumption	MUs Slab Wise	Proposed Energy Tariff FY 2021-22 (Rs/Unit)	Revenue from Energy Charge FY 2021-22 at Proposed Tariff (In Rs Cr)
First 100 Units	14.6%	11.01	7.00	7.70
Above 100 Units	85.4%	64.38	8.40	54.08
Total		75.39		61.79

SI.	Category	Connected Load (MVA)	Fixed Charges (Rs/KW/Month)	Total Fixed Cost (Rs Cr)	Energy Tariff (Rs/KWh)	MUs Approved	Avg Tariff	Energy Charge	Total Revenue
		1	2	3	4	5	6	7	8=7+3
А	LT Category		(Rs/KW/Month)		Rs./kWAh				
1	Kutir jyoti	88.43			4.55	85.11	4.68		39.79
2	Domestic	475.00	70	35.91		475.00		245.60	281.51
3	Commercial	79.00	140	11.94		79.00		61.79	73.73
4	Industrial LT	11.00	145	1.91	7.20	6.08		4.86	6.78
5	Public Lighting	0.00	145	0.00	7.80	0.12		0.10	0.10
6	LED Fittings	0.00	70	0.00	4.45			0.00	0.00
7	Water supply	7.00	140	1.18	7.70	11.77		10.07	11.25
8	General Purpose	18.00	140	3.02	7.95	17.52		15.48	18.50
9	Agriculture	0.00	140	0.00	3.75	0.58		0.24	0.24
10	Crematorium	0.15	8400		4.90	0.21	5.88		0.12
			Rs./kVA/month		Rs./kVAh				
В	HT Category								
1	Domestic (HT)	19.00	265	4.53	7.15	24.81		19.71	24.24
2	Commercial (HT)	32.00	265	7.63	7.60	27.72		23.41	31.04
3	Industrial (HT)								
a)	Special Tariff	42.80			4.90	81.35		44.29	44.29
b)	Other Industries	141.40	265	33.72	7.60	144.39		121.93	155.65
4	Ferro Alloy	11.00	265	2.62	7.60	35.03		29.58	32.20
5	Public water supply	9.00	265	2.15	7.45	32.84		27.18	29.33
6	General Purpose / BS	46.00	275	11.39	7.45	96.96		80.26	91.65
С	EHT Category		Rs./kVA/month		Rs./kVAh				
1	Industrial EHT								
a)	Special Tariff	14.30			4.90	27.18		14.80	14.80
b)	Other Industries	10.70	275	2.65	7.45	116.34		96.30	98.95
2	Ferro Alloy	61.79	275	15.29	7.45	321.07		265.77	281.07
	,								
	Total	1066.57		133.95		1583.08		1061.38	1235.25

# The revenue at proposed tariff is shown in the table below with the detailed calculations: Table 5.90 : Revenue for FY 2021-22 at Proposed Tariff

# Please Note:

- a) The connected load and sale of power within the state has been taken in line with figures and justification given in **Section 5.2 of the petition**
- b) The connected load and fixed charge tariff has been used to arrive at revenue from fixed charges. The sale of power within state and energy charge tariff has been used to arrive at revenue from energy charges
- c) for Kutir Jyoti, Crematorium, average tariff of FY 2020-21 as has been escalated by 20% to arrive at average tariff for FY 2021-22 (The tariff hike proposed is also 20% as shown in Table 45) which has been used to calculate the revenue from these categories.

- d) Unit Consumption for Special tariff categories has been determined by assuming load factor of 22 % as also mentioned in **Section 5.2 of the petition**
- e) Revenue from Energy Charges for Domestic (LT) and Commercial (LT) has been calculated in the table 47 and 48 above.
- f) For Revenue from fixed charges calculations in HT and EHT: 75% of the contract demand (connected load) has been used for calculations. This is as per the assessment of the billing demand for HT and EHT consumers where the billing demand charged to a consumer is at least 75% of the contract demand. The excerpt from the tariff booklet FY 2020-21 Section 4 is attached as Annexure K.
- g) For revenue from tariff for all categories above [excluding Sl No A) 1,2,3]: Due adjustments of power factor has to be made to fixed and energy tariffs for categories with KVAh billing to arrive at revenue at proposed tariff.

KVAh billing has been proposed for all categories of HT and EHT as stated in Section5.5 of the petition. Thus, power factor adjustment has to be done to arrive atrevenue from tariff for these categories.

The power factor used for calculations is 0.9 (As per Supply Code Regulations, 2018). Average tariff rates at proposed tariff is given in the table below:

Particulars	Existing Tariff * (At FY 2020-21 levels)	Proposed Tariff ^ (Proposed tariff for FY 2021-22)		
Revenue	963.62	1235.25		
MUs	1583.08	1583.08		
Average Tariff	6.08	7.80		

Table 5.91 : Average Tariff Hike for FY 2021-22

# **Commission's Analysis**

The Licensee has projected approved sales at 1583.08 MU as against 1470.79 MU for FY 2021-22, as also the revenue assessment at Revised rates of fixed charges and Energy charges projected are found to be exorbitant and shall not be considered.

The unit consumption for Special Tariff categories assuming load factor of 22% is certainly a defiance to the agreed terms of MoU.

As per the condition no.7 of MoU, If the BIA member industries fail to maintain minimum load factor of 68%, a penal charge of Rs.1.20/KVAh for HT and

# Rs.1.00/KVah for EHT consumer should have been assessed. Thus the approach of licensee amounts to understatement of Revenue at Existing Tariffs.

Commission has considered Annual Revenue Requirement for FY 2021-22 at Rs.876.32 Crore including Revenue Gap approved for FY 2017-18 at Rs.112.05 Crore and Revenue Gap approved in the Review orders for FY 2017-18 at Rs.23.64 Crore.

The Revenue at existing Tariffs assessed at Rs.921.44 Crore for approved energy sales of 1470.79MU which is found to be suffice to meet the Annual Revenue Requirement for FY 2021-22 as depicted in the table below.

SI. No	Category	No. of Consumers	Connected Load (MVA)	KWH/ KVA	Energy (MU)	Total Revenue (Rs. Cr.)	Avg. Rate (Rs. Unit)
A)	LT Category						
1	Domestic(DLT)	343944	475.00	427500	400.61	235.11	5.87
2	Commercial (CLT)	31692	79.00	71100	75.39	63.95	8.48
3	Industrial LT (ILT)	695	11.00	9900	6.08	5.07	8.34
4	Agriculture (Ape)	228	0.28	252	0.58	0.21	3.57
5	Public Lighting (PL)	60	0.39	351	0.12	0.13	10.71
6	Water supply (WSLT)	476	7.00	6300	11.77	8.79	7.47
7	General Purpose(GP)	2492	18.00	16200	17.52	14.42	8.23
8	Kutir jyoti (KJT)	268477	88.43	79587	85.11	41.10	4.83
9	Crematorium (CRM)	1	0.15	135	0.21	0.10	4.50
B)	HT Category						
1	Domestic (HT)	95	19.00	19000	24.81	20.63	8.31
2	water supply	27	9.00	9000	32.84	23.83	7.26
3	Bulk Supply	236	46.00	46000	96.96	72.81	7.51
4	Commercial (HT)	167	32.00	32000	27.72	27.13	9.79
5	Industrial (HT)	124	141.40	141400	144.39	134.32	9.30
6	Ferro Alloys	2	11.00	11000	35.03	18.26	5.21
7	Special Tariff	8	42.80	42800	74.24	36.38	4.90
C)	EHT Category						
1	Industrial	2	10.70	10700	52.98	35.80	6.76
2	Ferro Alloys	4	56.00	56000	341.07	162.15	4.75
3	Special Tariff	3	25.00	25000	43.36	21.25	4.90
	Grand Total	648733	1072.15	1004225	1470.79	921.44	6.26

Table 5 92 · Revenue from	n Existing Tariffs for FY 2021-22
Table 5.52 . Revenue II OI	I EXISTING LATING TO FT ZUZI-ZZ

#### 5.25.14 Revenue Gap for FY 2021-22 at proposed Tariffs

#### Petitioner's Submission

Based on the above submissions, the revenue gap for FY 2021-22 at proposed tariff

has been arrived at as follows:

Table 5.93 : Revenue Ga	p at Proposed tariff of FY 2021-22

Particulars	Amount in Rs Cr
Total Revenue Requirement in FY 2021-22	1,772.11
Less: Projected Revenue with Proposed Tariff Hike	1,235.25
Projected Revenue Gap for FY 2021-22	536.87

Based on the above submissions, the licensee requests the Commission to treat the remaining amount of Rs 536.87 Cr as regulatory asset, which shall be liquidated over the future years with appropriate carrying cost.

# **Commission's Analysis**

Commission has considered Annual Revenue Requirement for FY 2021-22 at Rs. 874.05 Crore including Revenue Gap approved for FY 2017-18 and assessed Revenue at existing Tariffs for Rs.921.44 Crore, resulted in Net Surplus for Rs.47.39 Crore as depicted in the Table below.

Table 5.94 : Revenue Gap/Surplus at Existing tariff of FY 2021-22

Particulars	Amount in Rs Cr
Net ARR for FY 2021-22	738.36
Add: Revenue Gap approved for FY 2017-18	112.05
Add: Revenue Gap approved for FY 2017-18 Review	23.64
Total Revenue Requirement in FY 2021-22	874.05
Less: Revenue assessed at Existing Tariffs for FY 2021-22	921.44
for approved sales 1470.79 MU	
Net Surplus for FY 2021-22	47.39

The Revenue at Existing Tariffs works out to be Surplus of Rs.47.39 Crore, The Revenue Gap projected by the Licensee shall not be considered as Regulatory Asset, nor require to consider increase in Tariffs for FY 2021-22.

# 6. Tariff Principles and design and Approved Tariffs

# 6.1 Background

The Commission while determining the Revenue Requirement and retail tariff for MePDCL for FY 2021-22, has been guided by the provisions of the Electricity Act, 2003, Revised National Tariff Policy, Regulations on Terms and Conditions of Tariff issued by Central Electricity Regulatory Commission (CERC) and Regulations on Terms and Conditions of Tariff notified by MSERC. The Act mandates that the tariff determination shall be guided by the factors which encourage competition, efficiency, economical use of resources, good performance and optimum investment. The National Tariff Policy (NTP) notified by Govt. of India provides comprehensive guidelines for determination of tariff and also in working out the revenue requirement of power utilities. The Commission has endeavoured to follow these guidelines as far as possible. The mandate of NTP is that tariff should be within  $\pm 20\%$  of the average cost of supply for the year. It is not possible for the Commission to lay down the road map for reduction of cross subsidy, mainly because of lack of data regarding Cost of Supply (CoS) at various voltage levels. In view of the prevailing situation, the Commission has gone on the basis of average cost of supply for working out consumer category wise cost of supply. The Commission has always stressed to the licensee that better performance in reduction in loss levels would result in substantial reduction in average cost of supply, and would be of benefit to the consumer.

# 6.2 Existing Tariff and Proposed Tariff by MePDCL

# **Petitioner's Submission**

MePDCL in its tariff petition for FY 2021-22 has proposed increase of 15% to 25% over existing tariff for various categories of consumers to earn additional revenue to meet the gap to some extent. The balance gap has been proposed to be kept as Regulatory asset which is to be liquidated in the future years. The category wise Tariffs proposed by MePDCL are shown in the Table 6.1:

SI. No	Category	Existing Tariff		Proposed Tariff	
		Fixed Charges Energy Charges		Fixed Charges	Energy Charges
		Rs./KW/Month	Rs./kWh	Rs./KW/Month	Rs./kWh
	Low Tension				
1	Kutir Jyoti				
	Unmetered (Per Connection)			215	
	Metered	-	3.65		4.55
2	Domestic				
	First 100Units	60	3.70	70	4.45
	Next 100Units	60	4.20	70	5.05
	Above 200Units	60	5.70	70	6.85
3	Commercial				
	First 100Units	120	6.10	140	7.00
	Above 100Units	120	7.30	140	8.40
				Rs./kVA/month	Rs./kVAh
4	LT Industrial	120	6.00	145	7.20
				Rs./KW/Month	Rs./kWh
5	Public Lighting(Metered)	120	6.50	145	7.80
6	LED fittings and Lamps	-		70	4.45
7	Public Water Supply	120	6.70	140	7.70
8	General Purpose	120	6.90	140	7.95
9	Agriculture	100	3.00	140	3.75
10	Crematorium	7000	4.10	8400	4.90
11	Electric Vehicle Charging Station	120	10.09		7.00
	High Tension	Rs./kVA/month	Rs/KWh	Rs./kVA/month	Rs./kVAh
12	Domestic	230	6.20	265	7.15
			Rs./kVAh		
13	General Purpose/Bulk Supply	230	6.20	275	7.45
14	Commercial	230	6.60	265	7.60
15	Industrial				
a)	Special Tariff				4.90
b)	Other HT Industries	230	6.60	265	7.60
16	Ferro Alloy	200	4.46	265	7.60
17	Public Water Supply	230	6.50	265	7.45
18	Electric Vehicle Charging Station	230	10.97		8.10
	Extra High Tension	Rs./kVA/month	Rs./kVAh	Rs./kVA/month	Rs./kVAh
19	Industrial				
a)	Special Tariff				4.90
b)	Other EHT Industries	230	6.20	275	7.45
20	Ferro Alloy	200	4.36	275	7.45

#### Table 6.1 : Category wise Tariffs existing and proposed for FY 2021-22

# **Commission's Analysis**

The Annual Revenue Requirement for FY 2021-22 works out to be less than the Revenue assessed from the Existing Tariffs considering the projected connected load, estimated energy sales and increase in the no. of consumers for FY 2021-22.

The proposed increase in the Tariffs by the licensee shall not be considerable.

Commission observed that there is huge difference in the Cross subsidy levels among the consumer categories.

Commission considers it is desirable to neutralise the cross subsidy levels to some extent among the consumer categories in terms of section 62.3 of Electricity Act 2003 read with Regulation 103 of MSERC MYT Regulations 2014.

Commission accordingly determines to carry out marginal correction in the Energy charges of the existing Tariff rates without increase being considered in the fixed charges.

The above correction in the Energy charges provides Revenue to the Licensee a sum of Rs.15.93 Crore which works to 1.73% for FY 2021-22.

Accordingly the Approved Tariff rates are notified in the table below

SI. No	Category	Existing Tariff		Approved Tariffs	
		Fixed Charges	Energy Charges	Fixed Charges	Energy Charges
	Low Tension	Rs./KW/Month	Rs./kWh	Rs./KW/Month	Rs./kWh
1	Kutir Jyoti				
	Unmetered (Per Connection)				3.65
	Metered in Excess of 30 Units p/m	-	4.83	-	3.95
2	Domestic				
	First 100Units	60	3.70	60	4.00
	Next 100Units	60	4.20	60	4.40
	Above 200Units	60	5.70	60	6.00
3	Commercial				
	First 100Units	120	6.10	120	6.30
	Above 100Units	120	7.30	120	7.30
				Rs./kVA/month	Rs./kVAh
4	LT Industrial	120	6.00	120	6.20
				Rs./KW/Month	Rs./kWh
5	Public Lighting(Metered)	120	6.50	120	6.50
6	LED fittings and Lamps	-		-	
7	Public Water Supply	120	6.70	120	6.80
8	General Purpose	120	6.90	120	7.10
9	Agriculture	100	3.00	100	3.00
10	Crematorium	7000	4.10	7000	4.10
11	Electric Vehicle Charging Station	120	10.09	120	-
	High Tension	Rs./kVA/month	Rs/KWh	Rs./kVA/month	Rs./kVAh
12	Domestic	230	6.20	230	6.50
			Rs./kVAh		
13	General Purpose/Bulk Supply	230	6.20	230	6.50
14	Commercial	230	6.60	230	6.90
15	Industrial				
a)	Special Tariff	-	4.90	-	4.90
b)	Other HT Industries	230	6.60	230	6.80
16	Ferro Alloy	200	4.46	200	4.50
17	Public Water Supply	230	6.50	230	6.70
18	Electric Vehicle Charging Station	230	10.97	230	-
	Extra High Tension	Rs./kVA/month	Rs./kVAh	Rs./kVA/month	Rs./kVAh
19	Industrial				
a)	Special Tariff	-	4.90	-	4.90
b)	Other EHT Industries	230	6.20	230	6.50
20	Ferro Alloys	200	4.36	200	4.40

#### Table 6.2 : Approved Category wise Tariffs for FY 2021-22

# 7. Wheeling Charges and Cross Subsidy Surcharge

# 7.1 Wheeling Charges

# **Petitioner's Submission**

The Wheeling Charges applicable for Distribution Open Access consumers at 33 kV voltage level for FY 2020-21 has been determined as per the Clause 23 MSERC (Terms and Conditions of Open Access) Regulations, 2012 which is stated below:

"Wheeling charges payable to distribution licensee, by an open access customer for usage of its system and associated facilities shall be as determined as under:

Wheeling Charges = (ARR – PPC – TC) / (ALSD X365) (in Rs. /MW-Day)

Where,

ARR= Annual Revenue Requirement of the distribution licensee in the concerned year

PPC= Total Power Purchase Cost of distribution licensee in the concerned year

*TC* = Total transmission charges paid by distribution licensee for State and associated facilities and Inter-State transmission system for the concerned year

ALSD= Total average load projected to be served by the concerned distribution system in the concerned year

Provided that Wheeling charges shall be payable on the basis of contracted Capacity/Scheduled Load or actual power flow whichever is higher."

Wheeling Charges has been determined from the ARR FY 2020-21 of the Distribution

Wires Business, as determined in the below table:

Particulars		Amount
ARR of Distribution Business of the distribution licensee in the concerned year (In INR Cr) *	А	1235.25
Power Purchase Cost Within State (In INR Cr) **	В	602.73
Inter and Intra State Transmission Charges (In INR Cr)	С	255.36
Net ARR of Wire Business (In INR Cr)	D=A-B-C	377.16
Estimated Load for FY 2021-22 (MW) ^	E	268.92
Wheeling Charges (Rs/MW-Day)	F=D/(E*365)	38425.18
Total Sale within State for FY 2021-22 (MUs)	G	1583.08
Wheeling Charges (Rs/Unit)	H=D*10/G	2.38

Clarifications:

\* ARR = Total ARR i.e sum of Net Pass through ARR (Net ARR FY 2021-22 – Regulatory Asset) as shown in Table 51 above

\*\* Power Purchase Cost Within State: Sale of Power in State (1583.08 MUs) \* Average Power Purchase Cost FY 2021-22@ 3.81 per unit as given in Table 17

^ FY 2019-20 Average Load is 212.50 MW and consumption in the state is 1250 MUs.
 Based on the consumption in the state for FY 2021-22, average load proportionately is arrived at 269.92 MW.

The Licensee humbly requests the Commission to review the wheeling charges as per the calculations shown above.

# **Commission's Analysis**

The Commission has noted the submission of the Petitioner and taken a view in this Order. The Commission has determined the ARR of MePDCL for FY 2021-22 as per the Regulations and adopted as the basis for determining the wheeling charges in accordance with MSERC (Terms and conditions of open Access) Regulations, 2012.

Computation of wheeling charges shall be on the basis of approved sales at 1470.79 MU.

Particulars	(Rs. Crore)
ARR of MePDCL for FY 2021-22 excluding Non- Tariff income	1108.21
(1211.43-103.22)	
Less: Power Purchase cost of MePDCL	895.91
Less: Transmission Charges of MePTCL	52.44
ARR – PPC - Transmission Charges	159.86
Energy Sales (MU)	1470.79
Wheeling Charges (159.86/ 1470.79)	1.09 Ps/KWh

 Table 7. 2 : Approved Wheeling charges for FY 2021-22

# Wheeling charges per unit works out to Rs.1.09 Ps/kWh.

Commission directs the licensee to recover the wheeling charges as per Regulations payable from open access consumers on the basis of contracted capacity/ scheduled load or actual power flow whichever is higher.

# 7.2 Cross Subsidy Surcharge

## **Petitioner's Submission**

As shown in the previous sections, the licensee is proposing a tariff hike in the range of 15% - 25% for the consumer categories. Thus, for cross subsidy surcharge for FY 2021-22, the licensee is proposing an average hike of 20% over FY 2020-21 levels. Because of the truing up adjustments and increase in the ARR for FY 2021-22of MePDCL, it will result in increase of average cost of supply wrt previous year.

Hence cross subsidy charges are proposed to increase by 20% in FY 2021-22as shown below. The levy of cross subsidy surcharge shall be as per MSERC Open Access Regulations 2012 and its subsequent amendments.

SI. No.	Particulars	Existing (INR/kWh)	Proposed (INR/kWh)
1	Cross Subsidy Surcharge for HT consumers	1.85	2.22
2	Cross Subsidy Surcharge for EHT consumers	1.6	1.92

## **Commission's Analysis**

The Regulation implies computation of Cross subsidy Surcharge on the basis of approved power purchase cost and PGCIL cost in the ARR. The Proposed 20% hike in the Cross subsidy surcharge shall be considered on the basis of formulae notified in National Tariff policy 2016.

The Submission of the Licensee for increase in the Tariffs in the Range of 15% to 25% for the consumer categories shall not be necessary in view of the fact that Revenue at existing Tariffs would suffice to meet the ARR for FY 2021-22.

The Cross subsidy surcharge shall be computed as per the Regulations and National Tariff policy notified by Ministry of Power Resolution dated 28<sup>th</sup> January 2016 as analysed below.

## Surcharge Formula:

S = T - [C/(1-L/100) + D + R]

Where

S is the surcharge

T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase

# Obligation

C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level

L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level

R is the per unit cost of carrying Regulatory assets if any.

Above formula may not work for all distribution licensees, particularly for those having power deficit, the State Regulatory Commissions, while keeping the overall objectives of the Electricity Act in view, may review and vary the same taking into consideration the different circumstances prevailing in the area of distribution licensee, Provided that the surcharge shall not exceed 20% of the tariff applicable to the category of the consumers seeking open access.

SI.No	Particulars	(Rs. in Crores)
1	Total Power Purchase Cost	895.91
2	PGCIL Cost	62.81
3	Total (1+2)	958.72
4	Power Purchase (MU)	3056.98 <b>(MU)</b>
5	Avg. Power Purchase cost (3/4)	Rs.3.14 / Kwh

# Formula:

$$S = T - \left[\frac{C}{(1 - \frac{L}{100})} + D + R\right]$$

 Table 7. 5 : Computation of Cross Subsidy Surcharge for FY 2021-22

V= Voltage Level	T= Tariff (Rs./Kvah)	C= Average Cost of Power Incl. PGCIL Cost	L= Losses (%)	D= Wheeling Charges	R= Regulatory Assets	S= Surcharge	Limited to 20% of Tariff (Rs./KVah)
	1	2	3	4	5	6	7
HT Level	9.50*	3.14	6%	1.09	0	5.07	1.90
EHT Level	7.06*	3.14	4%	1.09	0	2.70	1.41

Commission considers Cross subsidy surcharge for HT consumers at Rs.1.90/Kvah and EHT consumers at Rs.1.41/Kvah for FY 2021-22.

# 8. Directives

## 8.1 Compliance of Directives

1) The ARR for MYT period FY 2018-19 to FY 2020-21 was approved based on the projected business plan. The Licensee has not been presenting the audited accounts to the Commission as stipulated in the Regulations. The Commission is constrained to adopt the MYT ARR provisions for want of the audited financial statements up to FY 2019-20.

## **Commission's Review:**

Action may be expedited.

## 2) Energy audit

As per the MOU entered for implementation of UDAY scheme, energy audit upto 11Kv level has been made mandatory; licensee shall ensure energy audit as contemplated in the MOU and report progress of loss levels to the Commission every month.

## Commission's Review:

Licensee has not complied with the directive.

#### **Reply:**

Feeder metering & DT Metering is being taken up under DDUGJY scheme. In view of the pandemic the work completion is extended till March 2021. All works expected to be completed by March 2021. Process of closure of already completed work in progress Appointment of third party for auditing work is done.

## **Commission's Remarks:**

Status Report may be filed by 30.06.2021.

## 3) Energy conservation and DSM

MeECL submitted that in fact the Government has observed that CFL is to be phased out and consumers are encouraged to use LED bulbs for lighting purpose. It may be mentioned that the M/s Energy Efficiency Services Limited is being engaged as consultant to assist MePDCL to implement energy conservation and DMS. The Licensee shall advise the local Government to avoid use of fluorescent, Mercury, sodium vapour, CFL fittings, incandescent lamps by replacing existing street lights with LED lamps and fittings in order to ensure implementation of energy conservation and DSM. Commission had not considered the tariffs for public lighting with CFL fittings in the Tariff Order for FY 2018-19, proposals for Tariff rates for CFL fittings in the petition for FY 2020-21 is not considered.

Commission directs the licensee to advise EESL to strengthen their publicity efforts in local media to increase the number of outlets/ agencies for sale of LED lamps and fittings to the consumers in general and authorities of public lighting.

## **Reply:**

At present TERI (The Energy and Resource institute) has been engaged as a consultant to assist MePDCL to implement the energy conservation & DSM activities. A draft guide lines on cost effectiveness has been prepared by the DSM Cell in consultation with TERI, and the same has been submitted to MSERC for approval. The commission has sought views and opinions on the pre-publication notification on the matter for which the same is being examined and shall be submitted soon.

#### **Commission's Remarks**

Action may be accelerated.

## 4) Man power utilization study

Licensee submitted that the Manpower mapping is being done by Corporate Affairs wing of the MeECL.

Commission directs the Licensee to expedite submission of report for optimum utilisation of manpower, which would not affect efficiency while at the same time reducing costs. Report to be made available to the Commission by 30/06/2020.

## Commission's Review:

## Licensee shall submit the status report.

## Reply

Presently there are 3025 employees in all out of which 1831 nos are Regular and 1194 nos Casual employees. The mapping of employees is being carried out to ascertain the optimal requirement.

## **Commission's Remarks**

Efficient measures shall be deployed.

# 5) Energy Accounting Under UI/Swapping

The Commission directs the Licensee that payables/receivables towards UI/Swapping are properly scrutinized so that any excess allowed in the power purchase cost, due to difference in scheduling and actual drawl, by the open access consumer is not collected twice.

## **Commission's Review:**

# Licensee shall submit findings of the scrutiny along with true up petitions.

Reply:

Officers dealing with the matter are instructed to maintain strict observance as directed.

## **Commission's Remarks**

MePDCL shall file buyer wise sales data under swapping along with account balance.

## 6) Restructuring of MeSEB/Functioning of the Trust

The Commission directs the Licensee to place the details of transaction of pension, terminal liabilities and status of the functioning of Trust made for disbursement of the retired employees in its next ARR so as to make necessary adjustments, if any, in accordance with the Regulations.

## Commission's Review:

Licensee has not complied with the Directive; the status report shall be filed before 30.06.2020.

## Reply

The Pension Trust was created and registered in the office of the Sub-Registrar Shillong, vide date of Trust 17.06.1998 called the MeSEB Pension Trust. It may be noted that no separate Balance sheet is being prepared for the Pension Trust, hence the Trust may be considered as non functional but remains only as the Drawing & Disbursing authority.

In this regard, the licensee would like to submit that MeECL has not received the

contribution from the State government for the Corpus Fund, amounting to Rs.840 crore as on 31.03.2010, which would have been used to clear up the pension liabilities as agreed in Transfer Notification Scheme and to enable to maintain the Trust fund. In the absence of assistance from the State government, there has been no subsequent yearly/monthly transfer to the trust fund which would have catered to the terminal benefits liabilities of MeECL. The terminal liabilities will therefore be borne from its revenue from tariff based on the actual payment basis. As of today, the trust fund remains non-functional but remains only as Drawing & Disbursing authority.

## **Commission's Review:**

Tariff Regulations do not allow for the liabilities of the Retired employees in the ARR.

## 7) Reduction in AT&C losses

- a. Reduction in T & D losses
- b. Reduction in commercial losses
- c. Improvement in metering, billing and collection

## Status:

MePDCL had entered into Tripartite MOU for implementation of UDAY Scheme (UJWAL Discom Assurance Yojana) on 09.03.2017.

The following are the activities targeted to be implemented.

- a) Among other performance parameters the licensee shall reduce the T&D losses to 12% for FY 2020-21 and AT&C losses to be brought down to 15%.
- b) Metering of DTRs, energy audit upto 11Kv level, GIS mapping and consumer indexing for towns not covered under R-APDRP and smart metering of consumers with above 500 units.
- c) Commission has also approved capital investment to meet the capex for above activities in the business plan for FY 2018-19 to FY 2020-21
- d) MePDCL shall furnish monthly progress report on the above activities to the Commission in order to update the records and ensure cost- to- serve model Tariff.

## Commission's Review:

Licensee shall submit status report on the above performance parameters by 30.06.2020.

# Reply:

The Status Report is as below:

- a) Strengthening of infrastructure under IPDS, R-APDRP, SAUBHAGYA, ADB FUNDED PROJECT, NERPSIP etc is being taken up.
- b) Man power has been recruited for meter reading, billing etc.
- c) Re-organization of Distribution wing carried out.
- d) Input based Distribution Franchisee has been implemented.
- e) AMI metering to be taken up under ADB Funding.
- f) 100% computerized billing has been implemented.
- g) Pre-paid metering is being implemented.
- h) Smart metering project is being intiated.

## **Commission's Remarks**

Action may be exepidited.

## 8) Power Purchase:

Licensee has been projecting high volume of power procurement without corresponding increase in the level of energy sales. As a result a huge quantum of energy is being surrendered to UI/exchange, IEX which at times does not even cover cost price. This results in high cost of procurement and ultimately resulted in substantial increase in tariffs. The Licensee shall properly estimate the demand and follow the procedure laid down for sale to the consumers in the licensed area. The Licensee shall invariably obtain prior approval from the Commission where it is proposed to purchase power from sources other than approved vendors bilaterally, as specified in Regulations.

Commission directs the licensee to ensure optimum level of energy procurement in order to reduce the costs & tariffs, since there is a surplus of about 1100 MU available for FY 2020-21.

# **Reply:**

Officers dealing with the matter are instructed to maintain strict observance as directed.

## **Commission's Review**

MePDCL shall ensure optimal power procurement every year.

# 9) Metering, Billing and Collection Efficiency:

The Licensee is directed to ensure 100% metering of all consumers. Similarly, all 33kV and 11kV feeders and distribution transformers in towns and urban areas, as this would enable the Licensee to conduct energy audit, and accounting for assessing the exact T&D losses. While no new unmetered connections shall be given hence forth, an action plan may also be formulated to meter all unmetered connections existing at present. Licensee shall send a status report and plan of action by 30.06.2020.The licensee shall also target 100% of billing every month by employing IT tools like hand held spot billing machines.

The Licensee should provide multiple options for bill payment by consumers in order to improve the collection efficiency. It is also to be ensured that disconnection of consumer is enforced for non-payment, as multiple facilities have been provided for the convenience of the consumer. All the consumer service centres at sub-division level should co-relate entire metering, billing and collections, so that errors like wrong billing etc are avoided.

## Reply:

100% metering of all consumers is the prime target of MePDCL. New connections are all metered. MePDCL is striving to meter all the unmetered consumers.

Multiple options are made available to the consumers for bill payment. Some of the payment options to be named are through Spot Billing, Billing Counters at market areas, online payment options (Paytm, Google Pay, Amazon Pay etc.)

The consumers under EIBiS System covering approximately 3.27 lakhs consumers shall be covered under online payment solution soon.

## **Commission's Review**

Smart Metering will address the issue. Licensee shall expedite action.

## 10) Un Billed Consumers

An analysis of data submitted by the licensee gives rise to the suspicion that there are large numbers of metered consumers who have not been billed for years together. The Director Distribution shall constitute a Taskforce consisting of at least three senior officers of the level of Superintendent Engineer and above to confirm that all such consumers who have not been billed at least once in three months are identified, and to suggest systemic changes to ensure that such anomalies do not arise in future.

This issue has been raised in state advisory committee meeting held on 12.03.2020. Licensee shall expedite action taken on this aspect and report.

#### **Reply:**

At Present the unbilled consumers are mainly the consumers given connection under the SAUBHAGHYA Scheme. In this regard, meters have already been procured & the same shall be installed in the premises of all the consumers. A Task Force already been constituted.

#### **Commission's Review**

Action may be Expedited..

## **11)** Regulatory Accounts

The Licensee shall maintain and file Regulatory accounts along with Tariff Petition and True up petition based on the Regulatory accounts as mandated in Regulation 4.2 (c) of MYT Regulations 2014.

Reply

Noted.

## Commission's Remarks

Noted.

## **12)** Power Purchases Invoices

Purchase invoices should be matched with the actual energy drawn. MePDCL shall ensure to file the purchase invoices with the energy details in the true-up petition.

## **Reply:**

Officers dealing with the matter are instructed to maintain strict observance as directed.

## **Commission's Remarks**

MePDCL shall file the data along with invoices for True up.

## **13)** Electric Vehicle Charging Stations

The Licensee has proposed a Tariff for electric vehicle charging stations vide table no.16 of the petition with fixed charges and energy charges under LT commercial category and HT commercial category without projecting the number of consumers and the connected load of the services. The Commission does not find it prudent to decide on the categorization of the proposed electric charging stations. The Licensee shall submit a status report as soon as the consumers registered their charging stations with the Distribution Company as per the IE rules and safety norms. Commission shall take suitable decision based on the status report.

## Reply

Status shall be furnished as and when the consumer requirement on the same is received.

## **Commission's Remarks**

Noted.

# 9. Schedule of Approved Tariffs for FY 2021-22

## A. LOW TENSION Tariff

## 1. Domestic (Low Tension)

This tariff shall be applicable for domestic consumption, which includes consumption.

- a. In a private dwelling house for lighting, heating, cooling, fans and other house hold appliances.
- b. In temples, churches, mosques, gurudwaras and other places of religious worship:
- c. In hospitals, dispensaries, health centres, including those run by Central Government or by charitable, religious or social organizations on a no profit or non-commercial basis.
- d. In schools, colleges, hostels boarding houses for students run by Government or by charitable, religious or social organizations on a no-profit or non-commercial basis: and
- e. In ashrams, dharamshalas, community halls and institutions run by recognized welfare organizations.
- f. MeECL offices and its employee's residences.

## 1.1 Kutir Jyoti/ BPL

Kutir Jyoti connections have been covered under Domestic category with metered and unmetered sub categories.

## 1.1.2 Metered Kutir Jyoti

The MePDCL has proposed tariff of metered Kutir Jyoti consumers at Rs. 3.65 per unit for monthly consumption within 0-30 units. They have also proposed that if the monthly consumption in any month exceeds the limits of 30 units then their excess consumption over and above 30 units shall be done on the Tariff as prescribed for normal domestic consumers. The Commission has allowed Rs. 3.65per unit for BPL metered category up to consumption of 30 units. In case, they consumes more than 30 Units then the billing of excess units shall be done on the Tariff prescribed for normal domestic consumers at appropriate slab rates.

## Tariff for Kutir Jyoti/BPL (Metered) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs. /kWh)	(Rs. /kWh)	(Rs. /kWh)
Kutir Jyoti (KJ/BPL)	3.65	4.55	

## **1.2** Domestic Consumers

The existing tariff is two part Tariff. The fixed charge is levied on the basis of kW load per month and energy charges are applicable in 3 slabs with different rates for each slab. The Commission has not made any changes in the structure and approve the same. The revised rates for each slab and the fixed charges per KW are given below in the Tariff.

## **Fixed Charges**

## Fixed charges for Domestic Consumers for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff	
	(Rs. /kW/month)	(Rs./kW/month)	(Rs. /kW/month)	
Domestic (DLT)	60	70	60	

## **Energy Charges**

Energy charges for Domestic Consumers for FY 2021-22

Category	Category Slabs		Proposed Tariff (Rs./kWh)	Approved Tariff (Rs./kWh)
	First 100 units	3.70	4.45	4.00
Domestic (DLT)	Next 100 units	4.20	5.05	4.40
	Above 200 units	5.70	6.85	6.00

## 2. Non-Domestic (Low Tension)

The existing Tariff has a structure of 2 part Tariff. The fixed charges are levied on the basis of KW load per month and energy charges are applicable for two slabs with different rates for each slab. The Commission has not made any changes in the structure and approved the same. The approved rate for each slab and the fixed charges per KW are given below in the Tariff.

## **Fixed Charges**

## Fixed charges for Non- Domestic consumers for FY 2021-22

Category Existing Tariff		Proposed Tariff	Approved Tariff	
(Rs. /kW/month)		(Rs./kW/month)	(Rs. /kW/month)	
Non- Domestic (CLT)	120	140	120	

## **Energy Charges**

Energy charges for Non-	Domestic consumers for FY 2021-22

Category	Slabs	Existing Tariff (Rs./kWh)	Proposed Tariff (Rs./kWh)	Slabs	Approved Tariff (Rs./kWh)
	First 100 units	6.10	7.00	First 100 Units	6.30
Non Domestic					
(CLT)	Above 100 Units	7.30	8.40	Above 100 Units	7.30

## 3. Low Tension Industrial

This category is applicable for small and medium industrial consumer who is given supply on low tension wires. The Commission has approved the following two parts without changing the structure of the current tariff keeping in view the present cross subsidy adjustment.

## **Fixed Charges**

## Fixed charges for Industrial (LT) consumer for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs. /kW/Month)	(Rs./kW/Month)	(Rs. /kW/Month)
Industrial (ILT)	120	145	120

## Energy Charges

## Energy charges for Industrial (LT) consumer for FY 2020-21

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs. /kWh)	(Rs./kWh)	(Rs. /kWh)
Industrial (ILT)	6.00	7.20	6.20

## 4. Public Lighting Low Tension

This category comes under Public Lighting Connection gives supply through LT lines. The public lamps are generally unmetered and their Tariff is based on the fixed charges per KW per month. However, since no connection under the Act can be given without meters, the Licensee is required to install meters on all new connections and shall also progressively place meters on the existing connections. The Commission approves Tariff for metered connections only for the FY 2018-19. All the existing street lights fixtures shall be replaced immediately with LED fixtures and 100% fixtures shall be metered.

# 5. Public Lighting (Metered)

## **Fixed Charges**

Fixed charges for Public Lighting (Metered) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs. /kW/Month)	(Rs./kW/Month)	(Rs. /kW/Month)
Public Lighting (Metered)	120	145	120

#### **Energy Charges**

Energy charges for Public Lighting (Metered) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kWh)	(Rs/kWh)	(Rs/kWh)
Public Lighting (PL)	6.50	7.80	6.50

## Public Lighting (Unmetered)

All the public lighting fitting and fixtures should be invariably metered and the existing fittings should be phased out immediately with metered LED fittings and fixtures.

## 6. Public Water Supply /Sewage Treatment Plants

This category is related to Public Water Supply and Sewage Treatment plants and comes under public consumption. The following rates are approved for water supply and sewage treatment plants. These rates are decided keeping their nature of use and cross subsidy level.

#### **Fixed Charges**

#### Fixed charges for Public Water Supply for 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kW/ Month)	(Rs/kW/ Month)	(Rs/kW/ Month)
Public Water Supply (WSLT)/ Sewage Treatment Plants	120	140	120

#### **Energy Charges**

Energy charges for Public Water Supply for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kWh)	(Rs/kWh)	(Rs/kWh)
Public Water Supply (WSLT)/ Sewage Treatment Plants	6.70	7.70	6.80

# 7. General Purpose

This Tariff made for Government connections which are not covered under any other category of Public connections. The approved Tariff for this category is as follows:

## **Fixed Charges**

Category		Proposed Tariff (Rs/kW/ Month)	Approved Tariff (Rs/kW/ Month)
General purpose (GP)	120	140	120

#### Fixed charges for General purpose for FY 2021-22

#### **Energy Charges**

#### Energy charges for General purpose for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kWh)	(Rs/kWh)	(Rs/kWh)
General Purpose (GP)	6.90	7.95	7.10

## 8. Agriculture

This category is meant for agriculture where there are only few consumers in the State.

## **Fixed Charges**

#### Fixed charges for Agriculture for FY 2021-22

Category	Existing Tariff (Rs/kW/HP/ Month)	Proposed Tariff (Rs/kW/HP/ Month)	Approved Tariff (Rs/kW/HP/Month)
Agriculture (AP)	100	140	100

## **Energy Charges**

#### Energy charges for Agriculture for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kWh)	(Rs/kWh)	(Rs/kWh)
Agriculture (AP)	3.00	3.75	3.00

#### 9. Crematorium

This category is meant for crematorium using electricity for their day to day operation. As per the proposal there is only one consumer in this category. In the last Tariff Order the Commission has considered the nature and purpose of this crematorium which is meant for service to the society and operating on no profit no loss basis. The commission has held that on the basis of their nature of job their rates are considered equivalent to domestic consumers. The similar treatment has been given this year to this category with fixed charges on per connection basis and energy charges on metered consumption.

## **Fixed Charges**

#### Fixed charges for Crematorium for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/conn/Month)	(Rs/conn/Month)	(Rs/conn/Month)
Crematorium (CRM)	7000	8400	7000

## **Energy Charges**

#### Energy charges for Crematorium for FY 2020-21

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kWh)	(Rs/kWh)	(Rs/kWh)
Crematorium (CRM)	4.10	4.90	4.10

## 10. Electric Vehicle Charging Stations

Commission shall notify the tariff rates after receipt of status report from the licensee.

## **Fixed Charges**

## Fixed charges for Electric Vehicle Charging Stations for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/conn/Month)	(Rs/conn/Month)	(Rs/conn/Month)
Electric Vehicle Charging stations	120	130	120

# **Energy Charges**

## Energy charges for Electric Vehicle Charging Stations for FY 2021-22

Category	Existing Tariff (Rs/kWh)	Proposed Tariff (Rs/kWh)	Approved Tariff (Rs/kWh)
Electric Vehicle Charging	10.09	8.75	9.70
stations			

## B. High Tension Supply

As per the supply code this category is meant for those consumers who get supply from HT wires. The billing of this type of consumers is being done on the basis of provision of supply code.

## 11. Domestic High Tension

This tariff is applicable to domestic consumer having supply from HT system of the licensee. Their tariff is approved as follows.

## **Fixed Charges**

## Fixed charges for Domestic (HT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVA/Month)	(Rs/kVA/Month)	(Rs/kVA/Month)
Domestic HT (DHT)	230	265	230

## **Energy Charges**

## Energy charges for Domestic (HT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kWh)	(Rs/kWh)	(Rs/kWh)
Domestic HT (DHT)	6.20	7.15	6.50

# 12. Non Domestic High Tension/Commercial High Tension

This tariff is applicable to Commercial consumer having supply from HT system of the licensee. Their tariff is revised keeping in view of their present level of cross subsidy and its suitable correction. The Commission has approved their tariff as follows:-

## **Fixed Charges**

## Fixed charges for Non Domestic (HT) FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVA/Month)	(Rs/kVA/Month)	(Rs/kVA/Month)
Non Domestic HT (CHT)	230	265	230

## **Energy Charges**

## Energy charges for Non Domestic (HT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVAh)	(Rs/kVAh)	(Rs/kVAh)
Non Domestic HT (CHT)	6.60	7.60	6.90

## **13.** Special Tariff (HT)

The Industrial consumer who are the members of the BIA are considered special Tariff consumers in terms of the MoU entered into by Director MePDCL and BIA president on behalf of Industrial consumers.

## **Energy Charges**

## Energy charges for Special Tariff Industrial Consumers BIA (HT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVAh)	(Rs/kVAh)	(Rs/kVAh)
Special Tariff (HT)	4.90		4.90

The special Tariff shall be applicable subject to a minimum of 68% of load factor consumption to be computed half yearly for billing (Review: April – September and October –March).

Failure to achieve 68% load factor consumption, the penal charge at Rs.1.20/Kvah for HT and Rs.1.00/Kvah for EHT consumers shall be billed and collected.

# 14. High Tension Industrial

These are industrial consumers taking supply on HT. These consumers are charged on kvah basis. The tariff was introduced so as to improve the power factor in the system. This Tariff cares for the power factor of the industries and reward those performs efficiently. However, in case of leading power factor suitable correction should be made.

The Tariff is fixed as follows.

## **Fixed Charges**

## Fixed charges for Industrial (HT) for FY 2021-22

	Category	Existing Tariff (Rs/kVA/Month)	Proposed Tariff (Rs/kVA/Month)	Approved Tariff (Rs/kVA/Month)
In	dustrial High Tension	230	265	230

## **Energy Charges**

## Energy charges for Industrial (HT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVAh)	(Rs/kVAh)	(Rs/kVAh)
Industrial High Tension	6.60	7.60	6.80

## Energy Charges for Time of Day Tariff (ToD) for Industrial (HT)

Time of Day	Peak/off-peak	Energy Charges (Rs./kVAh)
0600-1700 hrs	Normal	As Approved
1700-2300 hrs	Peak	+20% of Normal
2300-0600 hrs	Off-Peak	- 15% of Normal

## (b) Ferro Alloy

## **Fixed Charges**

#### Fixed charges for Ferro Alloys (HT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVA/Month)	(Rs/kVA/Month)	(Rs/kVA/Month)
Industrial High Tension	200	265	200

## **Energy Charges**

## Energy charges for Ferro Alloys (HT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVAh)	(Rs/kVAh)	(Rs/kVAh)
Industrial High Tension	4.46	7.60	4.50

## 15. General Purpose Bulk Supply

## **Fixed Charges**

## Fixed charges for General Purpose Bulk (HT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVA/Month)	(Rs/kVA/Month)	(Rs/kVA/Month)
General Purpose Bulk Supply (BS)	230	275	230

#### **Energy Charges**

## Energy charges for General Purpose Bulk (HT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kWh)	(Rs/KVAh)	(Rs/kWh)
General Purpose/ Bulk Supply	6.20	7.45	6.50

## 16. Public Water supply/ Sewage Treatment Plant

# **Fixed Charges**

## Fixed charges for Public Water Supply (HT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVA/Month)	(Rs/kVA/Month)	(Rs/kVA/Month)
Public Water supply	230	265	230

## **Energy Charges**

## Energy charges for Public Water Supply (HT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVAh)	(Rs/kVAh)	(Rs/kVAh)
Public Water Supply	6.50	7.45	6.70

# 17. Electric Vehicle Charging Stations (HT)

Commission shall notify the tariff rates after receipt of status report from the licensee.

## **Fixed Charges**

## Fixed charges for Electric Vehicle Charging Stations for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/conn/Month)	(Rs/conn/Month)	(Rs/conn/Month)
Electric Vehicle Charging stations	230	245	230

## **Energy Charges**

## Energy charges for Electric Vehicle Charging Stations for FY 2021-22

Category	Existing Tariff (Rs/kWh)	Proposed Tariff (Rs/kWh)	Approved Tariff (Rs/kWh)
Electric Vehicle	10.97	8.05	9.90
Charging stations			

# C. Extra High Tension

## **18.** Special Tariff (EHT)

The Industrial consumer who are the members of the BIA are considered special Tariff consumers in terms of the MoU entered into by Director MePDCL and BIA president on behalf of Industrial consumers.

#### **Energy Charges**

#### Energy charges for Special Tariff Industrial Consumers BIA (EHT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVAh)	(Rs/kVAh)	(Rs/kVAh)
Special Tariff (EHT)	4.90		4.90

The special Tariff shall be applicable subject to a minimum of 68% of load factor consumption to be computed half yearly for billing (Review: April – September and October –March).

Failure to achieve 68% load factor consumption, the penal charge at Rs.1.20/Kvah for HT and Rs.1.00/Kvah for EHT consumers shall be billed and collected.

## 19. Extra High Tension Industrial

## **Fixed Charges**

#### Fixed charges for Industrial (EHT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVA/Month)	(Rs/kVA/Month)	(Rs/kVA/Month)
Industrial (IEHT)	230	275	230

#### **Energy Charges**

#### Energy charges for Industrial (EHT) for FY 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVAh)	(Rs/kVAh)	(Rs/kVAh)
Industrial (IEHT)	6.20	7.45	6.50

## 20. Extra High Tension Ferro Alloys Industries

## **Fixed Charges**

#### Fixed charges for Ferro Alloys (EHT) for 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVA/Month)	(Rs/kVA/Month)	(Rs/kVA/Month)
Industrial (IEHT)	200	275	200

#### **Energy Charges**

#### Energy charges for Ferro Alloys (EHT) for 2021-22

Category	Existing Tariff	Proposed Tariff	Approved Tariff
	(Rs/kVAh)	(Rs/kVAh)	(Rs/kVAh)
Industrial (IEHT)	4.36	7.45	4.40

#### 21. TIME OF DAY TARIFF

#### Energy Charges for Time of Day Tariff (ToD) for Industrial (HT/EHT)

Time of Day	Peak/off-peak	Energy Charges (Rs./kVAh)
0600-1700 hrs	Normal	As Approved
1700-2300 hrs	Peak	+20% of Normal
2300-0600 hrs	Off-Peak	- 15% of Normal

# D. Others

## 22. Temporary Supply

MePDCL has proposed to continue their existing arrangement where the fixed and energy charges shall continue to be double of the normal applicable rates for all categories.

The Commission directs MePDCL to release temporary connections only through pre-paid metering limiting to maximum of 3 (three) months period as per existing terms and conditions of the tariffs.

#### Annexure-I

# RECORD NOTE OF THE STATE ADVISORY COMMITTEE MEETING HELD ON 22.03. 2021

## at Pine Wood Hotel, SHILLONG.

Time: 13:00 Hours

## **Members Present in the Meeting**

- Shri. P W Ingty, IAS (Retd.),
   Chairman Meghalaya Sate Electricity Regulatory Commission Shillong.
- Shri. Roland Keishing,
- Member(Law) Meghalaya State Electricity Regulatory Commission Shillong.

#### Principal Secretary/ Commissioner and Secretary Food, 3

Civil Supplies and Consumer Affairs, Government of Meghalaya.

# Shri. Shyam Sunder Agarwal,

CMD(Pioneer Carbide Pvt. Ltd.), Byrnihat, Ri-Bhoi District, Meghalaya.

## J.B Poon

5 Chairman/Former Chairman, The Institution of Engineers(India), Meghalaya

# Shri. Eswoll Slong,

Secretary MSERC, Convenor

## <u>Minutes</u>

- (1) Chairman MSERC has welcomed the Honorable members of State Advisory Committee
- (2) Director MePDCL, has made Power point Presentation of the Tariff petition filed by MePDCL.
- (3) Principal Secretary/ Commissioner and Secretary Food Civil Supplies and Consumer Affairs, Government of Meghalaya has addressed the Meeting.

The Member stated that the State of Meghalaya has been experiencing unprecedented power cuts. The member opined the distribution company in consultation with the Govt. jointly address the present crisis of power interruptions.

The people of the state expect good services from the Distribution company while justifying a marginal increase in the Tariffs and extend the support for improvement of the performance by the Discom in a Win-Win corporation.

# (4) Shri. Shyam Sunder Agarwal, CMD(Pioneer Carbide Pvt. Ltd.), Byrnihat, Ri-Bhoi District, Meghalaya.

The Member suggested that MeECL shall provide the T&D loss data for the Previous year mandatorily along with the petition for fixation of ARR for FY 2021-22.

It is suggested that ABT meters should be provided mandatorily at 132 KV and 33 KV voltage level to monitor the Transmission losses to the individual feeders at injection and consumers end.

The member also suggested, MePDCL shall file month wise sale of surplus power outside the state with details of buyer. It is pointed out during FY 2019-20 was shown for 554.26 MU surplus power sold at Rs.1.66 Ps/kwh. Table 34 of the petition for FY 2021-22 reveals 286.18 MU surplus power sold against swapping agreement (FY note 23). The above sale as compared to IEX average rate of Rs.2.98 per unit during the FY 2019-20.

The Member further pointed out that Total power sold to HT and EHT consumers within the state was 544 MU inclusive of 379.94 MU sold to Ferro Alloy consumers which is 69.79% during the FY 2019-20.

It is suggested to incentive vise the Ferro Alloy consumers to increase their consumption to reduce the sale of power out side the sate at the rate of Rs.1.66 ps per unit only.

The Surplus power can be offered to HT:EHT level industries at a discounted rate of 30 to 40% which provides utlity better revenue realization and reduces T&D losses. There was a confesses on this proposal during the public hearing on 18.3.2021.

The Utility may be advice to file voltage wise Network data and T&D losses.

# (5) J.B Poon Chairman/Former Chairman, The Institution of Engineers(India), Meghalaya

The Member has suggested that MePDCL shall expedite audited accounts for the previous years which enables to claim Revenue gap in the ARR's and Tariff petitions.

# (6) Shri. Roland Keishing, Member (Law) Meghalaya State Electricity Regulatory Commission Shillong.

The Member deliberated that all the suggestions and advices proposed by the Members/participants will be shared in the Tariff Orders. The Member also welcomed the corporation and good advices suggested for best welfare of the licensee and consumers at large.

The Chairman MSERC has conveyed thanks to the members/participants for their views and suggestions in the State Advisory committee meeting.

Secretary MSERC has invited members and participants for the lunch hosted by MSERC.

Sd/-

Secretary MSERC

## Annexure-II

# List of Participants in the Public Hearing on the Petition filed by MeECL/MePDCL for ARR

# & Retail Tariff for FY 2021-22

# Date: 18.03.2021 | Venue: MSERC Conference Hall | Time: 13:00 Hours

# Present:

- 1. Mr. P. W, Ingty, IAS (Retd), Chairman, MSERC.
- 2. Mr. R. Keishing, Member(Law) MSERC.
- 3. Mr. E. Slong, Secretary, MSERC.

# MeECL/MePDCL

- 1. Shri. T. R. Pdah, Chief Engineer (PMC) MePDCL
- 2. Shri. S. S. Kharmih, Superintending Engineer (RA), MePDCL
- 3. Shri. G. S. Mukherjee, Company Secretary MePDCL
- 4. Shri. G.A. Dkhar, Law Officer, MeECL
- 5. Shri. Avijit Mani Tripathi, Advocate MeECL
- 6. Shri. Sunny Kr. Singh, Tehno-Commercial Assistant,
- 7. Shri. R. Warjri, Deputy CAO MeECL
- 8. Shri. R Marbaniang, Accounts MeECL
- 9. Shri. R. G. L. Mawlong, Executive Engineer (EM), MePDCL
- 10. Shri. D.K.Srivastav, Executive Engineer
- 11. Shri. B. Nikhla, Executive Engineer, MePDCL
- 12. Shri. A. Battacharjee, Assistant Tecno-legal

## **Byrnihat Industries Association (BIA)**

- 1. Shri. Mohit Goyal, BIA
- 2. Shri. Utkarsh Agarwal, Pioneer Carbide
- 3. Shri. Madanlal Mittal
- 4. Shri. Shyam Sunder Agarwal, Secretary BIA
- 5. Shri. Basant
- 6. Shri. Gaurav Bajaj
- 7. Shri. S. Asati, Consultant BIA
- 8. Shri. Abhijeet Srivastav, Executive R.A
- 9. Shri. Saurabh Agarwal, BIA
- 10. Shri. P.K. Mishra

- 11. Shri. C. K. Thakkar
- 12. Shri. P. Shome, Advocate BIA

## **Others**

- 1. Smti.A. Kharshiing,CSWO
- 2. Smti.Jenita. J. Nongsiej, Mawpdang village
- 3. Shri.ArjuDkhar,SecretaryDorbarShnongLumawbah.
- 4. Shri.P.K. Shullet, President JAC, MEA
- 5. Shri.M. Dkhar, Vice President, MEA
- 6. Shri.B. Narry, Assistant Secretary, MEA
- 7. Shri. N. Shangpliang, Member MEA
- 8. Shri. A. M. Kyndiah, Pensioners Association
- 9. Shri.E. Lyngdoh, Pensioner Association.