



Meghalaya State Electricity Regulatory Commission

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

&

Retail Tariff for FY 2018-19

Meghalaya Power Distribution Corporation Limited

MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

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

Lower Lachumiere, Shillong-793001

East Khasi Hills District, Meghalaya

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Abbreviations

A&G	Administration & General
ARR	Aggregate Revenue Requirement
APTEL	Appellate Tribunal For Electricity
CAGR	Compound Annual Growth Rate
CD	Contract Demand
CoD	Commercial Operation Date
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
CoS	Cost of Supply
CWIP	Capital Work In Progress
DE	Debt Equity
EHT	Extra High Tension
FPPPA	Fuel and Power Purchase Price Adjustment
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
ROE	Return on Equity
SLDC	State Load Despatch Centre
SBIMCLR	State Bank of India Marginal Cost Lending Rate

MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

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

Lower Lachumiere, Shillong-793001

East Khasi Hills District, Meghalaya

In the matter of

Determination of Multi Year Aggregate Revenue Requirement (ARR) for 2nd Control Period FY 2018-19 to 2020-21 and Retail Tariff for 2018-19 for distribution and retail supply of power in the State of Meghalaya.

AND

Meghalaya Power Distribution Corporation Limited

Petitioner

(herein after referred to as MePDCL)

CASE NO.: 9/2017

Coram

WMS PARIAT, IAS (Retd.),

Chairman

ORDER

(Date: 31.03.2018)

1. 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.
2. As per the directive of the Commission, the MePDCL has filed the Petition for determination of Aggregate Revenue Requirement (ARR) for FY 2018-19 to 2020-21 and Retail Tariff for FY 2018-19.

3. In exercise of the powers vested under section 62 (1) read with section 62 (3) and section 64 (3) of the Electricity Act 2003 and MSERC MYT Regulations, 2014 (Notified on 15.09.2014) (herein after referred to as Tariff regulations) and other enabling provisions in this behalf the Commission issues this order for approval of the ARR for 2nd control period FY 2018-19 to 2020-21 and determination of retail Tariff Order for FY 2018-19 for distribution and retail supply of electricity in the state of Meghalaya.
4. 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 the MePDCL has filed the ARR and Tariff Petition for the 2nd Control Period FY 2018-19 to 2020-21 and for distribution and Retail Tariff for FY 2018-19.
5. Regulation 19 of the Tariff Regulations, 2014 provides for giving adequate opportunities to all stake holders and general public for making suggestions/objections on the Tariff Petition as mandated under section 64(3) of the Electricity Act 2003. Accordingly the Commission directed MePDCL vide order dated 04.12.2017 to publish the ARR and Tariff Petition for 2nd control period FY 2018-19 to 2020-21 in an abridged form as public notice in newspapers having wide circulation in the state inviting suggestions/objections on the Tariff Petition.
6. Accordingly 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. The last date of submission of suggestions/objections was fixed within 30 days of the notice.
7. 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 the public hearing at the headquarters of the state. Accordingly the Commission held public hearing at Shillong on 09.03.2018.

8. The Proposal of MePDCL was also placed before the State Advisory Committee in its meeting held on 15.02.2018 and various aspects of the Petition were discussed by the committee. The Commission took into consideration the advice of the State Advisory Committee on the ARR and Tariff Petition of MePDCL for the 2nd control period FY 2018-19 to 2020-21 & Retail tariff for FY 2018-19 (Annexure-I).
9. 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.
10. 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 control period FY 2018-19 to 2020-21 and distribution tariff for FY 2018-19.
11. The Commission has reviewed the directives issued earlier in the Tariff Orders for FY 2014-15 to 2017-18 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. This Order is issued in 10 chapters as detailed below.

Chapter 1- Introduction

Chapter 2- Summary of Petition for ARR for FY 2018-19 to 2020-21 & retail tariff for FY 2018-19

Chapter 3 - Public Hearing process

Chapter 4- Approach of the Commission

Chapter 5- Analysis of ARR for FY 2018-19 to FY 2020-21 and Commission's approvals

Chapter 6- Tariff principles and Design & Approved Tariff schedule

Chapter 7- Fuel & Power Purchase Price Adjustment (FPPPA) formula

Chapter 8- Wheeling Charges and cross subsidy surcharges

Chapter 9- Directives

Chapter 10- Schedule of Tariffs

The MePDCL should ensure implementation of the order from the effective date after issuance of a public notice, in such a font size which is clearly visible in two

daily newspapers having wide circulation in the state within a week and compliance of the same shall be submitted to the Commission by the MePDCL.

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

WMS Pariat IAS (Retd.)
Chairman
MSERC

1. Introduction

1.1 Background

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

The Commission had admitted the Petition provisionally on 04.12.2017.

1.2 Meghalaya Power Distribution Corporation Limited

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 Corporation Limited (MePTCL)
3. Distribution : Meghalaya Power Distribution Corporation Limited (MePDCL)
4. Meghalaya Energy Corporation Limited (MeECL) a holding company.

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

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

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.

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 2nd Control Period FY 2018-19 to 2020-21 Including determination of tariff for FY 2018-19 . The Commission undertook the technical validation of the Petition and admitted the Petition Provisionally on 04.12.2017.

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

Sl. No	Name of News paper		Language	Date of Publication
1	The Shillong Times	a)Shillong Edition	English	07.12.2017& 08.12.2017
		b)Tura Edition	English	08.12.2017 & 09.12.2017
2	U Mawphor		Khasi	07.12.2017 & 08.12.2017
3	Salantini Janera		Garo	07.12.2017 & 08.12.2017

MePDCL had also placed the public notice and the Petition on the website (www.meecl.nic.in) inviting objections and suggestions on the petition. The interested parties/stakeholders were asked to file their objections/suggestions on the petition within 30 days 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 09.03.2018. 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 at Commission's office in Shillong as scheduled. The Commission also held meeting with State Advisory Committee on 15.02.2018. 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 given in Chapter-3.

2. Summary of Multi Year ARR for Control period FY 2018-19 to 2020-21 and Tariff petition for FY 2018-19

2.1 Aggregate Revenue Requirement (ARR) for Control Period FY 18 to FY 19

The Meghalaya Power Distribution Corporation Limited (MePDCL) has submitted the Petition on 30.11.2017 seeking approval of Aggregate Revenue Requirement for control period FY 2018-19 to 2020-21 and Determination of distribution tariff for FY 2018-19. The MePDCL has projected the revenue requirement for the control period as under:

Table 2.1: ARR Projected for Control Period 2018-19 to 2019-21

Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Power Purchase Cost	614.24	1,032.75	1456.82	1310.55	1296.09
Transmission Charges (PGCIL)	116.34	175.13	198.73	204.70	210.94
Transmission Charges (MePTCL)	83.28	169.81	210.61	306.40	347.22
Employee Expenses	136.35	143.11	149.95	158.30	166.33
Repair & Maintenance Expenses	10.11	10.62	11.15	11.70	12.29
Administration & General Expenses	10.40	10.92	11.46	12.04	12.64
Depreciation	10.51	21.57	31.91	30.13	28.39
Interest and Finance Charges	42.52	63.50	63.70	65.24	61.56
Interest on Working Capital	31.18	33.25	43.14	43.28	44.51
Return on Equity	113.54	113.54	113.54	113.54	113.54
Gross Annual Revenue Requirement (ARR)	1,168.47	1,774.20	2,291.01	2,255.88	2,293.51
Less: Non-Tariff Income	108.76	114.20	119.91	125.91	132.20
Less: R.E. Subsidy	20.50	-	-	-	-
Less: Subsidy against Power Purchase	-	-	-	-	-
Less: R.E. Subsidy Against Loss On Account Of Flood, Fire Cyclone Etc	2.00	-	-	-	-
Less: Revenue Grant for Other Expenditure	-	-	-	-	-
Less: Sale of Surplus Power	50.82	358.60	441.07	449.73	443.56
Net ARR	986.38	1,301.40	1,730.04	1,680.24	1,717.75

2.2 Revenue Gap for the 1st year of 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 1st year of Control Period i.e. FY 2018-19. The

detailed calculation of revenue at current tariff is shown in Format 14. The total revenue at current tariff works out to be Rs.658.01 Cr for FY 2018-19

2.3 Revenue from Sale of Surplus Power

As per the Energy balance submitted in Table 1 of the Petition during FY 2018-19 MePDCL is expected to have 1762.26MU of surplus power after meeting the State Demand of Energy and Returning of Swapping obligation. It is stated this surplus power is expected to be available during the rainy season only; 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. It is stated that it is extremely difficult to project a realistic rate per unit of power.

Table 2.2: Revenue from Sale of Surplus Power Projected

Particulars	FY 2018-19
Surplus Power (MU)	1764.26
Per unit Revenue(Rs./unit)	2.50ps
Revenue from Surplus Power (Rs. Cr)	441.07

MePDCL submits before the Hon'ble Commission to kindly approve Rs.441.07 Cr as revenue from sale of surplus power.

2.4 Revenue Gap/ deficit at Current Tariff

The projected Net ARR in Table 21, Revenue at current tariff in table 24 and Revenue from sale of Surplus Power in table 20 is compared and a Revenue Gap/ Deficit of Rs. 1072.03 Cr is arrived for FY 2018-19 . The details are shown in the table 2.3.

Table2.3: Revenue gap for FY 2018-19

Particulars	Rs. Cr
Net ARR of FY 2018-19	1730.04
Revenue from surplus Power	441.07
Revenue at Existing Tariff	658.01
Revenue Gap	1072.03

MePDCL submits before the Hon'ble Commission to kindly approve Rs. 1072.03 Crore as revenue Gap for the FY 2018-19.

2.5 MePDCL has requested the Commission

To pass appropriate order on the following:

- a) Approval of Business Plan for the Control Period of FY 2018-19 to 2020-21
- b) Approval of Tariff proposal for FY 2018-19
- c) Approval of Net ARR amounting to Rs. 1730.04 Cr for FY 2018-19 as proposed in this Petition.
- d) Approval of Net ARR amounting to Rs. 1680.24 Cr for FY 2019-20 as proposed in this Petition.
- e) Approval of Net ARR amounting to Rs. 1717.75 Cr for FY 2020-21 as proposed in this Petition.
- f) To pass such orders, as Hon'ble Commission may deem fit and proper and necessary in view of the facts and circumstance of the case.
- g) 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

Section 64 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 Multi Year Tariff for distribution Business for FY 2018-19 to FY 2020-21 and determination of tariff for FY 2018-19. The other objectors i.e. Greater Shillong Crematorium & Mortuary Society, Shillong and Green Valley Industries Limited, Nongsning have presented oral submission during the hearings. The objections/suggestions by M/s. Byrnihat Industries Association (BIA) and the response of the licensee on the objections/suggestions and the Commission's view have been summarized under various sub-heads as given below.

Objections/ Suggestions of Stakeholders

Name of the objector- M/s Byrnihat Industries Association (BIA)

M/s Byrnihat Industries Association (BIA) has filed objections to the petition filed by the MePDCL seeking Multi Year Tariff for distribution Business for FY 2018-19 to FY 2020-21 and determination of tariff for FY 2018-19.

A. General:

Objections by BIA

Cost of Supply

M/s BIA has stated that industries in the state of Meghalaya have been set-up based on the representations made for sustained supply of electricity at competitive rates. But the cost of electricity has increased substantially over the years which have made operations of industries in the state more and more unviable.

Response of MePDCL

At present the revenue from sale of power is not sufficient to meet the cost of power purchase due to which MePDCL could not pay the power purchase bills on time. Further the cost of the Distribution Business also increased with the improvement in infrastructure, in power purchase rate, increase in pay of employees, inflation etc. In the past years, the tariff was not reflective of the actual cost as there was non-availability of audited accounts after restructuring of companies. After the availability of audited accounts, the tariff has to be reflective of justified actual cost. Hence the Commission is resorting to revision of tariff after thorough prudence check and rationality of the proposals of the MePDCL.

Commission's views

Commission considers the tariff after prudence check of all components in ARR, taking into consideration balancing the interests of the consumers and the licensee.

B. Determination of MYT for FY 2018-19 to FY 2020-21

Objection by BIA

1. Annual Accounts

MePDCL has stated that it is filing the ARR for FY 2018-19 to FY 2020-21 based on actual for FY 2015-16 and provisional accounts for FY 2016-17 and that it is using the Business Plan for FY 2018-21 and audited accounts for FY 2015-16 for determination of tariff.

Response of MePDCL

As per Regulations 4.2 and 9.1 of MSERC MYT Regulations, 2014, for the purpose of MYT the petitioner is not bound to submit audited accounts of the previous financial year.

The audited accounts for FY 2015-16 have been filed along with the petition for true-up of Distribution Business for FY 2015-16 by MePDCL in its letter no MePDCL/SE(RA)/72D/2017-18/10 dated 29.12.2017. The provisional accounts for FY 2016-17 have been submitted along with the petition for Distribution Business

for FY 2018-19 and Determination of Distribution tariff for FY 2018-19 by MePDCL in its letter no MePDCL / SE (RA) 54D/2017-18/64 dated 30.12.2017. Auditing of accounts for FY 2016-17 is under process.

Commission's views

Commission considers the projections of the Licensee as per the approved numbers in the Business Plan in absence of audited accounts for computation of ARR elements for the control period.

2. Energy Availability

a. Objection by BIA

The Hon'ble Commission, in its order dated 01.11.2017, while approving the Business plan for FY 2018-19 to FY 2020-21 directed the petitioner to submit energy availability from various sources, PLF assumed for estimating available energy from various sources, fixed and variable cost etc. in its MYT Petition for the control period from FY 2018-19 to FY 2020-21. The petitioner did not comply with the direction and also did not furnish any reasons.

Response of MePDCL

All the claims made by the petitioner are backed by the facts and data. The petitioner has segregated the transmission and distribution losses for the energy balance computation. The energy balance for distribution covers transmission loss before the distribution periphery. The petitioner has taken the exact quantum of energy to be procured from different sources for future as per orders of the Commission.

Commission's views

Commission considers the energy availability as approved in the Business Plan for the control period.

b. Objection by BIA

The Petitioner has included the power allocated from NTPC, Bongaigaon even though it has surrendered the same. There is no need to pay fixed charges on the surrendered power.

Response of MePDCL

The petitioner has correctly included the power allotted from NTPC Bongaigaon in the energy balance on account of temporary surrender of power without levy of fixed charges on MePDCL for the current period and also considered the impact of levy of fixed charges in the control period.

Commission's views

Commission considers power procurement from NTPC Bongaigaon plant to the extent allocation made available to Meghalaya by the Government of India without losing the rights to use the power allocation.

c. Objection by BIA

The petitioner failed to include its free power entitlement from energy availability projections even though free power of 42 MU and 56 MUs was available to it during 2014-15 and 2015-16 respectively as is evident from the true-up order of 2014-15 and provisional true-up petition of 2015-16. The petitioner may be directed to explain such lapses in its projection and the free power element may be considered while determining power purchase cost.

Response of MePDCL

The petitioner has considered the power availability as approved in the Business plan order for FY 2018-19 TO 2020-21 and also while computing power purchase cost for FY 2018-19 TO 2020-21 has considered the energy received from various generating stations excluding free power component.

Commission's views

Commission issues directive to the Licensee to claim the free power available from NEEPCO.

3. Power Purchase Cost**i. Objection by BIA:**

The petitioner has projected the power purchase rates (variable cost) for 2017-18 by escalation of 170% of MePGCL generating stations over 2016-17 rates. Since the state of Meghalaya received heavy rainfall and due to more generation the average power purchase rate should have decreased.

Response of MePDCL

The petitioner has projected power purchase cost based MYT tariff petition for FY 2018-19 to 2020-21 and minimal inflation on the present day tariff of central generating plants. The power purchase rates for generating stations are governed by the tariff orders of CERC and MSERC.

Commission's views

Commission considers Power Purchase Cost projected by Licensee with a minimal inflation rates. As the tariff orders considered on the basis of estimates, the rates shall be decided by the CERC and price will be finalised during the true up exercise.

ii. Objection by BIA

The Petitioner has claimed fixed costs against energy from Umtru HEP even though the plant is under shutdown.

Response of MePDCL

The Petitioner has to incur certain minimum fixed cost on account of Umtru plant even under shutdown such as security, administration expenses etc. has to be incurred which may be treated as overhead expenses.

Commission's views

Commission shall consider only fixed charges on account of unavoidable O&M expenses without other ARR elements for Umtru Project.

iii. Objection by BIA

The Commission to direct the petitioner that the power from Myndtu Leshka HEP shall be dispatched as per MOD as the cost is Rs.9/unit.

Response of MePDCL

The Petitioner has considered the cost of Power Purchase from Myndtu Leshka HEP as projected by MePGCL in its MYT petition for FY 2018-19 to FY 2020-21. The higher cost of MLHEP is due to adjustment of true-up gap for previous financial year of Rs. 81.50 Crore, for FY 2013-14 and FY 2014-15 as approved by the Commission in Tariff Order dated 31.03.2017 and Rs. 102.22 Crore for FY 2015-16 as filed in the true-up petition for FY 2015-16 for MePGCL vide letter No.MePGCL/D/Gen/Misc. 13/2008/P2-X/39 dated 09.01.2018.

Commission's views

Commission considers Power Purchase Cost for MLHEP including the true up gap for the FY 2013-14.

iv. Objection by BIA

Since Ganol and Lakroh HE Projects are yet to be commissioned, no tariff should be considered as no cost prudence has been done for these projects.

Response of MePDCL

MePDCL is currently executing the works of Lakroh and Ganol Projects and are expected to be commissioned in FY 2018-19. Hence power purchase cost has been projected for FY 2018-19 to 2020-21 for these projects in line with the power purchase cost approved by the Commission for New Umtru.

Commission's views

A provisional tariff was approved for Lakroh project in the tariff orders for FY 2013-14 at Rs. 0.74/kWh. The Licensee has projected power drawal from this project during the control period. MePGCL shall be allowed to claim the power generated in the plant to meet the repayment of loans borrowed against the project. Commission has considered energy available at cheaper rate. Similarly the cost of power to be generated at Ganol project is priced at average rate of MePGCL plants which is cheaper than all other generating stations.

v& vi. Objection by BIA

AERC approved significantly lower power purchase rates for some stations of NTPC / NEPCO and as per CERC Regulations, 2014 these lower rates assume significance.

Response of MePDCL

The rates approved by the AERC are similar to those assumed by the petitioner. The actual power purchase rates of the plants are dependent as actual performance and uncontrollable elements like fuel costs etc. The power purchase costs taken for projecting are subject to adjustments under FPPPA and / or true-up. The power purchase rates assumed are based on rates of past years and true-up

based on actual. The supporting invoices of the past years have been submitted to the Commission.

Commission's views

Commission has considered power purchase rates for the control period which are more or less comparable with the rates of FY 2017-18.

vii. Objection by BIA

For FY 2017-18, the petitioner has included surcharge against NEEPCO and also charges towards NHPC Loktak Plant without drawing energy from it. The petitioner also tried to claim money paid as delayed payment surcharge amounting Rs. 93.03 Crore.

Response of MePDCL

The petitioner has not included delayed payment surcharge in MYT projection. But for true-up, the petitioner requested the Commission to consider actual delayed payment surcharge due to its inability to recover prudent costs in a timely manner.

Commission's views:

The Commission has noted the objection raised by BIA and the response of the MePDCL thereon.

4. Transmission Charges

Objection by BIA:

The petitioner has claimed transmission charges payable to PGCIL based on existing actual per unit rates escalated by 3% annually. Since CERC has determined the annual fixed costs of the transmission assets of PGCIL up to FY 2018-19, the claim of the petitioner for escalation should be disallowed and the projected transmission charges should be reviewed in the light of inter-state energy transfer being handled by the petitioner.

Response of MePDCL

The transmission charges to be paid to PGCIL have been projected at an escalation of 3% on the current rate to avoid sudden financial burden on the utility during the control period. If this component is carried forward it will have substantial impact on the end consumer.

Commission's views

Commission considers the MYT order based on the estimates. Actual transmission charges shall be accounted in the true up exercise and the variations if any will be carried forward to be realized or refunded as the case may be.

5. Gross Fixed Assets (GFA)**Objection by BIA**

The petitioner did not furnish details of on-going works, component of loan, equity on grants on actual basis but included Capex allowed in the Business plan as capitalized in GFA. This is incorrect.

Response of MePDCL

The opening balance of GFA claimed in MYT petition for FY 2018-19 to 2020-21 comprise gross fixed asset of MePDCL and one-third of Gross Fixed Asset of MeECL amounting to Rs. 330.39 Crore. Further MePDCL for computing GFA has considered the approved value of capitalization in Business plan order dated 01.11.2017 of the Commission.

Commission's views

Commission considers the GFA as reflected in the true up order for the FY 2014-15 and subsequent additions for the FY 2015-16 and 2016-17 as projected and also approved in the Business Plan for the control period.

6. Debt Equity Ratio**Objection by BIA**

Since negligible costs were incurred in implementing of NERPSIP and other works allowed in the capital investment plan, the Commission should disallow these cost components as equity and the petitioner be directed to give break-up of actual investment done till date corresponding to NERPSIP and other works.

Response of MePDCL

The petitioner claimed equity as per Regulation 27 of MSERC Regulations, 2014, which provides for allowing equity actually deployed. If it is more than 30% of the capital cost, then equity in excess of 30% shall be treated as normative loan.

Where the equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered. Further petitioner has computed equity based on the above regulation and has excluded the grant to be received for capital expenditure of the distribution projects.

Commission's views

Commission considers ROE as per the regulations after deducting the grants and contributions if any available during the control period as approved in the Business Plan.

7. Outstanding loans and interest on loans:

Objection by BIA

i. The petitioner has not provided details of capital expenditure funded by grant and debt. The Commission is requested to conduct prudence check of the capital expenditure plan and funding pattern of the petitioner. The Commission should not consider loans drawn for other than capital works. As the purpose for which Government loan was drawn has not been indicated, interest on such loans should not be considered.

ii. The loan granted by PFC to the petitioner is for clearing outstanding power dues and not as capital loan. The petitioner claimed interest on it for the entire period of 2016-17 to 2020-21 in order to inflate its ARR by claiming such interest on loans.

Response of MePDCL

The details of capital expenditure to be funded by grants and debt for FY 2018-19 to 2020-21 have been furnished in the capital investment plan of MePDCL and are duly approved by the Commission in its order dated 01.11.2017. Regarding additional loan of Rs. 636.43 Crore drawn from 2016-17 to FY 2020-21 corresponds to actual loan taken by MePDCL and out of this Rs. 442.12 Crore was taken in FY 2016-17 and it does not relate to MYT projection and the remaining loan of Rs. 189.39 Crore is planned to be taken in FY 2017-18 to FY 2020-21 to execute capital additional plans of the respective years which has been approved by the Commission in the Business Plan.

Commission's views

Commission considers Interest on Capital Loans as per regulations.

8. Return on Equity

Objection by BIA

As there is no clarity between the equity base and the GFA accounts of the petitioner, the Commission may allow equity on normative base to the tune of 30% after taking into account the significant amount of grant that has gone into the capital investment.

Response of MePDCL

The petitioner claimed return on equity as per MSERC Tariff Regulations which provide for allowing equity as appearing in the balance sheet / transfer scheme in excess of 30% of the capital cost (Regulation 31.1).

Commission' view

The Commission considers ROE as per Regulations after prudence check.

9. Repair and Maintenance (R&M) expenses

Objection:

- i. The petitioner has projected R&M expenses for the control period taking inflation rate of 5% as projected RBI for the next two years. The petitioner has not given any proper parameters for projecting R&M expenses. The escalation factor has been worked out to be 4.38% based on the CPI and WPI ratio of 55.45 as per guidelines issued by MOP. The Commission is requested consider the escalation rate of 4.38% while allowing R&M expenses.
- ii. The legal expenses may not be allowed as part of the O&M expenses and passed on to the consumers.

Response of MePDCL

- i. The petitioner has claimed R&M expenses as per the provisions of MSERC Tariff Regulation 2014. The R&M expense for the control period was projected considering inflation rate as suggested in Regulation 94.4 of MSERC Tariff Regulation, 2014. The R&M expenses for the control period are projected by considering inflation rate of 5% (CPI) as projected by RBI for the next two years which is in line with the R&M methodology as mentioned in MYT Regulation 2014.

- ii. Legal expenses are part of administrative expenses and incurred towards unavoidable regulatory and tariff matters.

Commission's views

The Commission considers R&M expenses as per Regulations after prudence check.

10. Interest on Working Capital

Objection by BIA

There are glaring discrepancies in the calculations submitted by the petitioner. In the light of the suggestions made by the objector in R&M expenses, the working capital requirement requires revision. Also non-consideration of grants in GFA has impact on the amount of maintenance spares to be included in the working capital requirement. The rate of interest has to be 14% as revised by the SBI.

Response of MePDCL

Interest on Working Capital has been worked out based on Regulation 34.3 of MSERC Tariff Regulations, 2014 comprising the following:

- O&M expenses for 1 month
- Maintenance spares of 1% of the historical cost calculated at 6% from the date of commercial operation.
- Receivables for 2 months of expected revenue.

Commission's views

The Commission considers Interest on Working Capital as per the regulations at 14.05% the prevailing rate with the SBI MCLR as on 01.04.2017

11. Revenue from Open Access Charges

Objections by BIA

- i. The petitioner did not indicate the amount received from open access consumers in the form of cross subsidy surcharge (CSS). The petitioner may be directed to amend the ARR by deducting the amount received from open access consumers as per Regulation 99.1 of MYT Regulation.

ii. Although electricity is available in open market at a competitive price, the steep increase in open access charges has rendered the objectors' members uncompetitive at national level.

iii. The objector, along with other prominent open access consumers, has a demand of 47 MW (i.e. 349.96 MU) which the petitioner did not consider for calculation as they are not concerned with the problems faced by them. The petitioner may be directed to consider income from open access consumers at appropriate level in line with actual amounts.

Response of MePDCL

i. The amount of CSS has been considered under non-tariff income of the MYT petition filed.

ii&iii. The objector, instead of comparing year on year increase in CSS, has shown a percentage increase in CSS with reference to inception year without considering the impact of increase in demand and ever increasing open access consumers. The year on year (YOY) increase in cross subsidy surcharge for the past 7 years is as follows YOY:

FY	CSS	YOY as per objector	Increase as per MePDCL
2012-13	0.41/KWh	-	-
2013-14	0.85/KWh	107%	107%
2014-15	0.95/KWh	131%	12%
2015-16	1.51/KWh	268%	39%
2016-17	1.9/KWh	363%	26%
2017-18	1.34/KWh	-	29%

Commission's views

Commission considers revenue to be received during the control period at the approved rates of the tariff and the non-tariff income viz. Open Access charges projected by the Licensee shall be deducted from the gross ARR.

I. Annual Revenue Requirement

Objection by BIA

i. As per the assessment of BIA, the claim of ARR of petitioner deserves disallowance of at least Rs. 929.35 Crore, Rs. 801.53 Crore and Rs. 902.35 Crore in FY 2018-19 to FFY 2020-21 respectively.

ii. The average cost of service cannot be more than Rs. 7.87 KWh, Rs. 7.72 KWh and Rs. 7.58 KWh as against Rs. 17.03 KWh, Rs. 16.18 KWh and Rs. 16.17 KWh as claimed by the petitioner for FY 2018-19, FY 2019-20 and FY 2020-21 respectively.

Response of MePDCL

i. The proposed ARR of the petitioner in Table 45 of the petition is based on actual of FY 2015-16 and provisional of FY 2016-17 in accordance with Regulations.

ii. The wheeling charges have been computed based on the projections made in the tariff petition and as per clause 23 of MSERC Terms and Conditions of Open Access Regulations 2012 which need no revision.

Commission's views

The Commission considers that the net ARR shall be computed based on the previous years' actual expenses and expected revenue with the prevailing tariffs. The average cost of service shall be computed considering the energy sales across the categories of supply to arrive at the unit rate as per regulations.

II. Voltage Wise Cost of Supply

Objection by BIA

The Commission in the tariff order dated 31.03.2017 has directed the petitioner to file calculation of cross subsidy at each voltage level within 6 months' time for FY 2017-18 and the petitioner is yet to file the same.

Response of MePDCL

The petitioner has submitted the report on voltage-wise cost of supply in letter no. MeECL/SE(RA)/71C/P1-II/2017-18/72 dated 09.01.2018.

The MePDCL got an energy audit study made 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 Commission. The methodology adopted is as per the methodology of AERC in its order for SBDCL dated 16.03.2015 (Chapter 8) and APTEL order dated 10.5.2012.

Commission's views

The Commission has noted the stakeholders objection and the petitioners response. The Commission endeavours to take action appropriate upon study of the data and report submitted by the petitioner.

III. Aspects related to Cross subsidy and additional surcharge**Objection:**

1. The cross subsidy should be calculated on the basis of voltage-wise supply.
 - i. The Licensee is seeking additional surcharge of Rs 1.76/kWh for FY 2018-19 but has neither given any reason to justify their claim nor filed petition with details of requirements.
 - ii. The Licensee has to prove conclusively that the obligation of Licensee continues to stranded capacity as per clause 8.5.4 of Tariff Policy (Additional Surcharge)
 - iii. It is seen from the petition that a large part of the energy availability projected is based on assumption and also while calculating it the petitioner has assumed stations coming up in near future or on account of power surrendered.
 - iv. The petitioner has been unable to establish standard capacity due to open access consumers.
 - v. The petitioner did not provide details of fixed charge already being recovered from the consumers in the form of demand charges.

Response of MePDCL**Cross Subsidy Surcharge**

1. Cross subsidy surcharge for industrial HT and EHT consumers is computed based on Regulation 103 of MSERC (MYT) Regulation, 2014.
 - (ii) to (v) Additional surcharge: In the order dated 31.03.2017, the Commission directed the petitioner to submit petition for determination of additional surcharge and the petitioner submitted a petition to the Commission on 24.05.2017. The main purpose of additional surcharge is to compensate the stranded generation capacity and under recovery of fixed cost. The component of

additional surcharge has been implemented in most of the states to improve the health of ailing Discom.

Commission's views

The Commission has examined the data/computation of additional surcharge claim submitted through a separate petition filed during May 2017 and found that the computation of additional surcharge is not as per the MSERC Regulations²⁵ (b) and (c) of Open Access Regulations, 2012. Hence, the Commission has not considered the additional surcharge claimed by the Licensee.

IV. Separate tariff categorization for Ferro Alloys Industries

Suggestion by BIA

The objector has recommended for treating Ferro Alloys Industries as a separate category due to:

- a. Power Intensive Industry;
- b. Industry has a load factor of 85%;
- c. Concessional tariff and other benefits exist in many other states;
- d. Closure of units has an impact on operations leading to revenue loss to Government; and
- e. Industry is cyclic in nature and the boom is shorter and recession is longer.

Response of MePDCL

The petitioner plan to make electricity billing more efficient and transparent limiting the number of categories of consumers which will improve tariff collections and health of the distribution companies

Commission's views

The Commission will examine the issue and pass separate orders thereon.

V. Non-compliance of directives

Objection by BIA

The petitioner did not comply with the following directives on;

- a. Voltage wise cost of supply;

- b. To submit study report to maintain optimum level of man power without affecting efficiency and to reduce costs;
- c. To properly estimate the demand following the procedure laid down for sale to consumers in the licensed area; and
- d. To report on the implications of the Hon'ble Supreme Court Order dated 28.08.2012 along with the report of CA&G on the statement of accounts for FY 2012-13.

Response of MePDCL

No response

Commission's views

The Commission will look into the status of the directives which are not complied with or complied partly, and fresh directives will be issued. Regarding implication of the Hon'ble Supreme Court order dated 28.08.2012; BIA shall approach the Licensee and seek remedial action. The Commission has no role in the matter at present.

Commission had conducted public hearing on the petition of the MePDCL on 09.03.2018 as scheduled.

BIA submission during the hearing is summarized below:

ARR item	Points of Objections
ACoS approved v/s claimed	In the past tariff order, an ACoS of Rs. 5.79 per unit was approved, while the Petitioner in the instant Petition has claimed an ACoS at an unprecedented rate of around Rs. 17 per unit in 2018-19 (almost a 200% increase).
Annual Accounts	The Petitioner has not provided the Annual Accounts of 2016-17 in the petition. It is pertinent that the basis for such projections be made available in public. The Accounts are not available even on the web-portal of Petitioner.
Energy Availability	<ul style="list-style-type: none"> Petitioner has chosen to ignore the directions of the Hon'ble Commission in the business plan approved on 1.11.2017. No justification has been given to substantiate the projections of energy availability in the instant Petition. <p>Surrendered power:</p> <ul style="list-style-type: none"> A huge quantum of power allocated to the State from the Central Generating Stations was earlier surrendered under the arguments that there will be surplus capacity within the State. The MoP letters/notifications dated 8.9.2017 and Government of Meghalaya intimation dated 15.5.2015 and 20.4.2016 may be referred to in this regard. The latest documents in the public domain suggest that such power is still 'surrendered' without any obligation of fixed charge payments for Bongaigaon TPS.

ARR item	Points of Objections
	<ul style="list-style-type: none"> Why has power procurement from such CGS sources been included again in the projections? Main reason for increase in power purchase costs has been cited as the inclusion of Bongaigoan power station of NTPC in the availability portfolio. No clarifications have been provided on the need to include such availability projections from this project when it is largely self-sufficient. Ironically, the Petitioner has claimed itself to be surplus and deficit at the same instant. <p>Free power:</p> <ul style="list-style-type: none"> The Petitioner has conveniently omitted to include its free power entitlements in the energy availability projections of MYT period. Around 42 MUs and 56 MUs of free power was available during 2014-15 and 2015-16 respectively [evident from the true up order of 2014-15 and provisional true up petition of 2015-16].
Power Purchase Cost	<p>Power purchase cost of Rs. 1456.82 Crore has been claimed in FY 2018-19 which is 41% more than the estimated values of 2017-18. The estimated cost for 2017-18 is Rs. 1032.75 cr., higher by around 70% over the actuals of 2016-17 cost. Similarly, significantly high power purchase cost has been projected for 2019-20 and 2020-21 based on certain assumptions that are grossly inconsistent with the scenario of 2016-17.</p> <p>Grossly inflated projections:</p> <ul style="list-style-type: none"> Power purchase rates (variable cost) for 2017-18 have been escalated at rates as high as 170% over the 2016-17 rates for MePGCL generating stations. A good rainfall in the region, with increased generation, ought to bring down the average power purchase rates for the hydro power plants of MePGCL in the range of Rs. 1.54/kWh to Rs. 3/kWh during FY 2016-17. However, the Petitioner has used the rates in the range Rs. 4.16/kWh to Rs. 8.81/kWh for projecting power purchase from MePGCL stations. <p>Umtru HEP:</p> <ul style="list-style-type: none"> Petitioner has declared that the station will not remain available during the period, while on other hand it has claimed fixed costs against energy from this station. Myntdu-Leshka HEP: Power purchase cost from this station has been projected at around Rs. 9 per unit during 2018-19. Consideration of despatch at such high rates will only increase the burden on consumers. Ganol & Lakroh HEP: These stations are yet to be commissioned and no cost prudence has been done for them. In absence of any prudence of costs, no tariff should be considered by the Commission. NTPC: For the same stations, Hon'ble AERC has approved significantly lower power purchase rates. The lower rates find relevance in the present context since CERC 2014 Regulations, provided for stringent norms of operations and tariff computations. GCV for instance, was considered from 'as fired' basis to 'as received' basis for the purpose of computing variable charges. NEEPCO: For the same stations, Hon'ble Assam Electricity Regulatory Commission has approved significantly lower power purchase rates. There is in general no reason for such significant increase in the power purchase rates of hydro stations. The Commission in its earlier Orders has also not allowed any upfront escalation in the cost items of power purchase from NEEPCO

ARR item	Points of Objections
	<ul style="list-style-type: none"> Any increase in power purchase cost can anyways be passed in the APR
Transmission Charges	<ul style="list-style-type: none"> Since Hon'ble CERC has determined the AFC of transmission assets of PGCIL only up to 2018-19, no escalation be given on the same without further prudence check. The said overall charges shall also undergo revision in view of the reduced inter-state energy transfer handled by the Petitioner.
Gross Fixed Assets	<ul style="list-style-type: none"> Gross Fixed Asset (GFA) has been claimed based on the opening balance on 1.4.2016 at Rs. 350.39 cr. and the closing GFA for each year of the control period is worked out by the Licensee considering actual capitalization during 2016-17, estimated capitalization during 2017-18 and projections during the MYT period based on its investment plan approved by the Hon'ble Commission. Opening GFA considered by the Petitioner on 1.4.2016 is itself not matching with the closing value of GFA in Accounts of 2015-16 (available to us). As against the closing of Rs. 338.85 crore, the Petitioner has claimed an amount of Rs. 350.39 cr. on 1.4.2016. It is further stated that 95% of the capital investment approved by the Commission in the business plan was in the form of grants and only 5% was supposed to be a loan.
Debt: equity ratio	<ul style="list-style-type: none"> The Petitioner has claimed the opening debt at Rs. 265.72 cr. and opening equity base of Rs. 810.42 cr. on 1.4.2016 against an opening GFA of Rs. 350.39 cr. It is clear from the Order issued by the Hon'ble Commission on 1.11.2017 approving the Business Plan of Petitioner that 95% of the total capital investment planned in respect of the North East Region Power System Improvement Project (NERPSIP) i.e. around Rs. 110.06 cr. out of Rs. 116.06 cr., is in the form of grant from the Govt. of India and only 5% i.e. Rs. 5.79 cr. is in the form of loan to MePDCL. As evident from the extracted table, only Rs. 185.78 cr. has been approved as a loan in the entire capital investment plan of Rs. 1219.67 cr. When there are almost no costs in implementation of NERPSIP and several other works allowed in the capital investment plan, how can these cost components be included as equity in the instant petition?
Outstanding loan and Interest on Loan	<ul style="list-style-type: none"> The Licensee has claimed interest cost based on the opening loan balance of Rs. 265.72 cr. on 1.4.2016. It has included, in its claim of loan portfolio, a loan item of Rs.325 cr. as taken from PFC during 2016-17 and has claimed interest on it for the entire period from 2016-17 to 2020-21. Though Petitioner has not submitted this, we found on secondary research that this loan was granted by PFC to clear the outstanding power dues and are not capital loans. How can interest be claimed on this amount?
Equity base and Return on equity	<ul style="list-style-type: none"> Return on Equity (RoE) has been claimed based on an opening equity base on 1.4.2016 at Rs. 810.42 cr. Noticeably, the Commission has approved a normative equity base of Rs. 98.89 cr. on 31.3.2015 in its Order dated 31.3.2017 Even in the instant filing, in absence of any reconciliation between the equity base and the GFA as per Accounts of the petitioner, Hon'ble Commission may allow equity base on normative base to the tune of 30% after taking into account the significant amount of grant that has gone into capital investment. The Commission has adopted a similar approach of allowing normative equity in earlier Orders also.
O&M expenses	<ul style="list-style-type: none"> The Petitioner has claimed different constituents of Operation & Maintenance expenses based on certain assumptions that do not have any rationale per se.

ARR item	Points of Objections
	<ul style="list-style-type: none">• The Objector has used 4 data points i.e. No. of consumers, No. of Distribution Transformers, Length of HT lines and Energy Sales based on which the O&M norms of the Licensee can be set to make it efficient.
Interest on Working Capital	<ul style="list-style-type: none">• Working capital requirements will change owing to<ul style="list-style-type: none">○ Impact of power purchase cost○ Change in the O&M expenses.○ non-consideration of grants in the GFA has impact on the amount of maintenance spares• Rate of interest for the purpose of computing working capital shall be 14% as revised by the State Bank of India.

4. Commission's Approach

4.1 Commission's Approach

The Tariff petition was filed under MSERC (Multi Year Tariff) Regulation 2014. Under Section 64 (i) read with Section 62 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 the 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 and objectives of Electricity act, National Electricity Policy and National Tariff Policy, the Commission has framed tariff regulations for generation, transmission and distribution business. The Tariff regulations prescribe the following:

4.2 Application for Determination of Tariff

The distribution licensee shall file application for determination of tariff along with Annual Revenue Requirement in accordance with the procedure laid down by the Commission.

4.3 Estimation of Sales

Regulation prescribes that the licensee shall adopt a suitable methodology like CAGR in computing 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.

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 years. The Trajectory of T & D losses are considered as projected in the Business plan as detailed below.

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
T & D Loss	22.76%	16.56%	12.19%	12.19%

4.5 Estimation of energy requirement

Based on the estimated energy sales and the proposed distribution losses the Commission may determine the quantum of electricity 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 year. In the

tariff order for FY 2018-19, the Commission in accordance with regulation has allowed power purchase from all sources available/allotted to Meghalaya. MePGCL new projects energy drawal however have been considered for purchase pending the approval of final tariff by the commission.

4.6 Power purchase cost

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 purchases 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 any short term power purchase is necessary on unprecedented developments; the licensee shall undertake the purchases in accordance with Commission regulation for power purchase. The cost of power purchase from central generating station shall be based on tariff determined by CERC. However, for state owned existing generating stations the cost of power purchase shall be based on prices as determined by the MSERC. The Commission has in accordance with the regulation allowed CERC rates for central generating station and commission's approved rate for MePGCL. The Commission shall allow RPO requirement from renewable sources of energy in accordance with the Commission's regulation for control period as well as over dues from previous years. **It is noted that the licensee has not projected the RPO requirement in the Tariff petition for the 2nd control period.**

4.7 Transmission and wheeling charges

Transmission, wheeling charges shall be considered as expenses and included in the power purchase cost. The Commission has allowed transmission charges for intra-state operation as per Commission's order for MePTCL for control period FY 2018-19 to FY2020-21 and others at the rate approved by the Commission.

4.8 Annual Revenue Requirement

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

- (i) Power purchase cost
- (ii) Capital Cost GFA

- (iii) Debt Equity
- (iv) Return on Equity
- (v) Interest on Loan capital
- (vi) Operation and Maintenance expenses
- (vii) Interest on working capital
- (viii) Income Tax
- (ix) Depreciation as may be Computed
- (x) Provision for bad and doubtful debts.

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

- (1) Non-Tariff Income
- (2) Subsidy from State Government

4.9 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 subsidy.

4.10 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. In case of any abnormal delay causing cost and time overrun which is 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, Commission has provisionally accepted the licensee's proposal and the same shall be validated after audited accounts are made available.

4.11 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.

4.12 Return on Equity

Return on equity shall be computed on the equity base determined as above 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 control period 2018-19 to 2020-21 and the Commission has allowed return on equity as per Regulations 2014.

4.13 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. The interest attributable to capital work in progress shall not be allowed.

4.14 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 next year. 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 of actual expenses in the previous year 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.

4.15 Interest on working capital

The working capital for supply of electricity shall consists 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 SBI MCLR as on 1st April of financial year in which petition filed.

4.16 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 given 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. In absence of information on grants and consumer's contribution, however, Commission has allowed provisionally a part of charges.

4.17 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. In the absence of audited accounts, the Commission has provisionally provided a token amount.

4.18 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.

4.19 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.

4.20 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 Commission has directed the licensee to propose time of day tariff for all HT/EHT consumers. 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 approved TOD Tariff for FY 2018-19 for HT and EHT Industrial consumers in order to promote Demand Side Management, as requested by the petitioner.

4.21 Validation of ARR

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

The Commission while determining the tariff for FY 2018-19 has followed its Regulation keeping in view the ground realities of the State. The Commission has tried to ensure a balance between the interest of the consumers and the viability of licensee.

4.22 Truing up

- a) The Licensee has filed petition for approval of ARR for 2nd MYT Control Period FY 2018-19 to FY 2020-21 for the and determination of tariff for FY 2018-19.
- b) As per the Regulation 15 (3) of MSERC Regulations 2011 and Regulation 11(2) of MSERC MYT Regulations 2014, the Licensee shall file petition for true up for previous year performance together with audited Accounts along with tariff petition for ensuing year.
- c) The Licensee has not filed the truing-up business for the previous year along with tariff petition for ensuing year.

- d) Commission in the Circumstances does not agree with the projections made in the petition for ARR and tariff for the ensuing year and MYT Control Period.
- e) In order to release the Tariff order in time, Commission had to finalize the ARR and tariff for ensuing year on the basis of accepted norms in the absence of audited reports.
- f) The Licensee was directed to file the petition for the truing-up of the business for FY 2014-15 along with C & AG audit report, as the true-up of Business for FY 2014-15 was done on provisional basis on the basis of orders of Hon'ble APTEL.

4.23 True up Gap / Surplus for previous years

The Licensee was directed to file the petition for the truing up of the business for FY 2014-15 along with C & AG audit report, as the true up of Business for FY 2014-15 was ordered on provisional basis. The losses/ gains which are normally to be factored in the subsequent tariff orders have not been taken up in the present order due to non-filing of the petition with C&AG Audit report.

4.24 ARR for the Control Period

Commission considers it necessary that the ARR and tariff orders are passed in the absence of audited results up to FY 2016-17. The estimates are considered based on the audited values for FY 2014-15 and assumed projections for the ARR and tariff for the control period as approved for the business plan.

5. Analysis of ARR for 2nd MYT Control Period FY 2018-19 to FY 2020-21 and Retail tariff for FY 2018-19

5.1 Energy Sales

Proper estimation of category-wise energy sales for control period FY 2018-19 to FY 2020-21 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 2nd control period FY 2018-19 to FY 2020-21 for approval of ARR.

5.1.1 Consumer Categories with Connected load

The MePDCL serves over 4.14 lakh consumers in its licensed area as on 31.03.2017 and the consumers are broadly categorized as under:

<u>LT Category</u>	<u>HT Category</u>
Domestic	Domestic HT
Commercial	Commercial HT
Industrial	Public water works HT
Public Lighting	HT Industrial
Water Supply	Bulk Supply
Agriculture	EHT
General Purpose	EHT Industrial
Kutir Jyoti	
Crematorium	

The DISCOM serves the consumers at different voltages at which the consumers avail supply. Some rural consumers are not metered and their consumption is assessed.

5.1.2 Category Wise number of Consumers and Connected Load as furnished in the petition and as approved for the business plan for the control period.

Sl. No	Category	2018-19		2019-20		2020-21	
		No. of consumers	Connected load (MVA)	No. of consumers	Connected load (MVA)	No. of consumers	Connected load (MVA)
	LT CATEGORY						
1	Domestic (DLT)	369564	420.74	395655	438.79	423589	457.62
2	Commercial (CLT)	25930	77.04	27027	81.26	28170	85.7
3	Industrial (ILT)	837	12.35	838	12.37	839	12.38
4	Agriculture (AP)	23	0.28	23	0.28	23	0.28
5	Public Lighting (PL)	57	0.39	57	0.39	57	0.39
6	Water Supply (WSLT)	369	7.28	369	7.57	369	7.88
7	General Purpose	2348	14.29	2413	14.82	2481	15.38
8	KutirJyoti	74647	39.8	80485	47.98	86779	57.84
9	Crematorium	1	0.14	1	0.14	1	0.14
	HT CATEGORY	-	-	-	-	-	-
11	Domestic (DHT)	82	19.71	84	20.42	87	21.15
12	Water Supply (WSHT)	31	7.79	32	7.80	32	7.8
13	Bulk Supply	166	44.88	168	44.88	169	44.88
14	Commercial (CHT)	224	28.14	237	30.76	250	33.62
15	Industrial (IHT)	129	96.13	129	96.13	129	96.13
	EHT CATEGORY	-	-	-	-	-	-
16	Industrial	6	68.70	6	68.7	6	68.7
17	Total	474415	837.68	507524	872.29	542980	909.89

5.1.3 Energy Sales

Petitioner's Submission

MePDCL has Projected the Energy Sales for control period as detailed below:-

Categories	FY 2016-17 (MU)	5 Year CAGR (%)	Growth Rate Considered (%)	FY 2017-18 (P) (MU)	FY 2018-19 (P) (MU)	FY 2019-20 (P) (MU)	FY 2020-21 (P) (MU)
Domestic LT	378.33	3.19%	3.19%	391.71	404.19	417.08	430.37
Commercial LT	61.78	2.16%	2.16%	63.22	64.58	65.98	67.41
General Purpose	21.73	7.98%	7.98%	23.61	25.49	27.52	29.72
Industrial LT	5.06	-5.87%	0.00%	5.06	5.06	5.06	5.06
Water Supply LT	10.41	3.55%	3.55%	10.89	11.28	11.68	12.10
KutirJyoti	24.62	20.28%	20.28%	29.61	35.61	42.83	51.52
Public Lighting	0.45	-17.74%	0.00%	0.45	0.45	0.45	0.45
Agriculture	0.10	-24.73%	0.00%	0.10	0.10	0.10	0.10
Crematorium	0.20	1.87%	1.87%	0.20	0.21	0.21	0.21

Categories	FY 2016-17 (MU)	5 Year CAGR (%)	Growth Rate Considered (%)	FY 2017-18 (P) (MU)	FY 2018-19 (P) (MU)	FY 2019-20 (P) (MU)	FY 2020-21 (P) (MU)
Commercial HT	25.75	5.25%	5.25%	27.10	28.53	30.02	31.60
Domestic HT	20.47	0.25%	0.25%	20.52	20.57	20.62	20.67
Industrial HT	141.65	-13.32%	0.00%	141.65	141.65	141.65	141.65
Water Supply HT	24.07	-3.75%	0.00%	24.07	24.07	24.07	24.07
Bulk Supply	64.75	-1.63%	0.00%	64.75	64.75	64.75	64.75
Industrial EHT	173.64	-4.93%	0.00%	173.64	173.64	173.64	173.64
Assam (ASEB)	17.75	-1.46%	0.00%	1.00	1.00	1.00	1.00
Short Term Sale	-			-	-	-	-
Swapping	-			-	-	-	-
Total Sales	972.38			977.59	1001.19	1026.68	1054.33

The Licensee submitted that the energy demand within Meghalaya has declined at a CAGR of approximate 2% in the period from FY 2011-12 to FY 2016-17. The growth rate has been factored for projection of Energy sales during the Control Period. MePDCL has submitted that energy sales Projection considered 1 to 5 year CAGR growth across the categories as per the Business plan approved.

The Licensee has considered 1 MU sales to ASEB stating that ASEB has applied for disconnection of supply.

Commission's Analysis

The Licensee has not furnished the specific reasons for the decline of Energy sales in Meghalaya. The Commission considers this to be a very significant matter, and an analysis of growth/decline has to be critically studied across the categories of consumers, especially high end consumers.

The number of consumers and connected load of LT Domestic Consumers account for 78% of the total consumer base, and 50% of total connected load in the state. While the sales of LT Domestic category account for 40 % of total sales for the FY 2018-19 and so on during the Control Period.

The licensee was directed to file the petition for Tariff with the approved no. of Consumers, Connected load and energy sales in the business plan for the MYT control period, but MePDCL has projected the connected load at 776.66 MVA in the Tariff petition for FY 2018-19 as against 837.68 MVA approved in the business plan.

The Tariff for FY 2017-18 was fixed to earn a Revenue of Rs. 773.00 Crores for 1173MU energy sales, whereas the licensee has projected the revenue at Rs. 658.01 Crores at existing Tariff for FY 2018-19. The average billing for FY 2018-19 shall be Rs.6.59/kWh and revenue at the existing Tariffs shall be Rs.664.56Cr. whereas the licensee has projected revenue at Rs.658.01 Crores for FY 2018-19 at average billing rate of Rs.6.48/kWh. **This variation in the assessment may be as a result of suppression of data and deficiency in billing.**

Commission considers the revenue to be billed based on the approved connected load and Tariff's approved for FY 2017-18 for computation of revenue gap at existing Tariff's for FY 2018-19.

Energy Sales

Kutir Jyoti

The Licensee has projected Kutir Jyoti sales at 35.61 MU, 42.83 MU & 51.52 MU for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 respectively. Commission considers the Kutir Jyoti sales at 28.95 MU, 31.39 MU, and 34.03 MU for the Control Period in view of the declining sales trend of subsidizing Industrial Categories projected by the Licensee, where by substantial amount of cross subsidy gets reduced.

MePDCL shall ensure the Billing of Consumers at LT domestic tariff rates where the permissible 30 Units are exceeded by Kutir Jyoti consumers.

HT Industries

Licensee has projected HT industrial sales at 141.65 MU for the control period FY 2018-19 to 2020-21. The sales of HT Consumers projected with zero growth is causing a deficit in the Revenue yield and is a major cause of concern. The Licensee had in the 1st Control Period FY 2015-16 to FY 2017-18 projected 226MU for HT Industries. Commission had approved 230 MU for the Control period, whereas for the same period the Licensee has shown the sales at 171.20 MU, 141.65 MU and 141.65 MU in the Business plan as against 226 MU (Projected) for the first MYT

control period. The reasons are not elucidated for the large variation in the projection for the second control period.

Commission however approves Energy sales for the Control period as depicted in the Table 5.1 below.

Table 5.1: Energy sales approved for the Control Period

(MU)

Sl. No	Particulars	Projected by MePDCL			Approved by the commission		
		FY 2018-19	FY 2019-20	FY 2020-21	FY 2018-19	FY 2019-20	FY 2020-21
1	Domestic LT	404.19	417.08	430.37	407.12	421.61	436.62
2	Commercial LT	64.58	65.98	67.41	64.58	65.98	67.42
3	General Purpose	25.49	27.52	29.72	25.48	27.51	29.71
4	Industrial LT	5.06	5.06	5.06	5.06	5.06	5.06
5	Water Supply LT	11.28	11.68	12.10	12.15	13.07	14.04
6	KutirJyoti	35.61	42.83	51.52	28.95	31.39	34.03
7	Public Lighting	0.45	0.45	0.45	1.02	1.02	1.02
8	Agricultural	0.10	0.10	0.10	0.10	0.10	0.10
9	Crematorium	0.21	0.21	0.21	0.21	0.21	0.21
10	Commercial HT	28.53	30.02	31.60	28.52	30.02	31.60
11	Domestic HT	20.57	20.62	20.67	20.57	20.62	20.68
12	Industrial HT	141.65	141.65	141.65	141.65	141.65	141.65
13	Water Supply HT	24.07	24.07	24.07	24.07	24.07	24.07
14	Bulk supply	64.75	64.75	64.75	82.50	82.50	82.50
15	EHT-Industries	173.64	173.64	173.64	173.64	173.64	173.64
16	Assam	1.00	1.00	1.00	-	-	-
	Total	1001.19	1026.68	1054.33	1015.63	1038.45	1062.34

Table 5.2: Approved Energy Sales for Control Period

(MU)

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Projected by MePDCL	1001.19	1026.68	1054.33
Approved by MSERC	1015.63	1038.45	1062.34

T & D Losses

Petitioner's submission

MePDCL has submitted in the Business Plan that the present Distribution network is overloaded and has deteriorated over time, and this is the main cause for increase in Technical Losses. Furthermore, the situation has aggravated after implementation of RGGVY project. Some rural areas are in inhospitable terrain and

have bad roads, while some areas do not even have motor-able roads. Therefore the maintenance of power supply, billing and collection of revenue from those remote villages is a daunting task. Keeping in view the existing situation and various measures & schemes undertaken to reduce the Distribution loss, the following loss trajectory is projected for the Second Control Period.

Table 5.3: T&D Loss Trajectory Projected for the control period

Particulars	FY 2016-17 (Audited)	FY 2017-18 (Projected)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
T & D losses (%)	32.65	22.76	16.56	12.19	12.19

Commission's analysis

Commission had approved T & D losses for the 1st Control Period FY 2015-16, FY 2016-17, FY 2017-18 at 23%, 22 %, 21% respectively. The Licensee has submitted T & D loss achieved for the FY 2016-17 at 32.65 % as against 22 % approved by the Commission.

The Licensee has projected that during FY 2017-18 the T & D loss would be 22.76% as against 21 % approved in the 1st MYT Control period. It may be observed that Licensee had not achieved 25.88% losses which was projected for FY 2016-17, and actual losses were reported at 32.65%.

Commission has noted that MePDCL had entered into Tripartite MOU for implementation of UDAY Scheme (UJWAL Discoms Assurance Yojana) on 09.03.2017, wherever the following are the activities targeted to be implemented.

- a) Among other performance parameters the licensee shall reduce the T&D losses to 12.19% by FY 2019-20 and AT&C losses to be brought down to 15%
- b) Metering of DTRs, energy audit up to 11Kv level, GIS mapping and consumer indexing for towns not covered under R-APDRP and smart metering of consumers with consumption above 500 units.
- c) Commission also has approved the 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 as detailed in the MoU to the Commission in order to update the records and ensure cost to serve model Tariff.

Table 5.4: T & D Loss Trajectory as per MOU

FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
28.96%	22.76%	16.56%	12.19%

AT & C Loss Trajectory

FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
32.51%	27.50%	21.50%	15.00%

Collection Efficiency

FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
95.00%	93.86%	94.08%	96.80%

Tariff Hike

FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
8.68%	8.68%	8.68%	8.68%

Commission considering the mandated performance by the MePDCL as per the MOU entered with the Ministry of Power, Government of India, Government of Meghalaya, the T & D loss trajectory for the 2nd MYT Control Period FY 2018-19, FY 2019-20, FY 2020-21 is approved as stated below.

Table 5.5: T&D loss Trajectory for Control period Approved

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
T & D Loss (%)	16.56	12.19	12.00

5.2 Energy balance

Licensee's Submission

MePDCL has projected the Energy balance statement for the second control period as detailed below.

Table 5.6: Energy Balance projected for 2nd Control Period

Sl. No	Particulars	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Power Purchased from the Eastern Region	976.14	976.14	976.14
2	Inter State Transmission loss for Eastern Region	2.12%	2.12%	2.12%
3	Net Power purchased from the Eastern Region	955.45	955.45	955.45
4	Power Purchased from North eastern Region	1038.11	1038.11	1038.11
5	Inter State Transmission loss for North Eastern Region	2.63	2.63	2.63
6	Net power available at state bus from external sources on long term	1941.13	1941.13	1941.13
7	Power Purchased from Generating stations within the State	1164.55	1164.55	1164.55
8	Power Purchased from other sources	0.00	0.00	0.00
9	Total availability at MePDCL Periphery	3105.67	3105.67	3105.67
10	Intra state Transmission loss at 4%	124.23	124.23	124.23
11	Total availability at MePDCL Periphery	2981.45	2981.45	2981.45
12	Power to be sold to consumers within the state (including ASEB)	1015.62	1038.36	1062.3510
13	Transmission and Distribution Losses (%)	16.56	12.19%	12.00%
14	Net Power requirement at state bus for sale of power within the state	1217.19	1182.51	1207.22
15	Surplus Power (for sale outside state)	1764.26	1798.94	1774.23

Commission's Analysis

Commission considering the submission of the Petitioner in the business plan for control period has approved energy balance with the proposed distribution losses at 16.56%, 12.19% & 12.00% and a surplus energy at 1788.39 MU, 1823.07 MU & 1799.29MU as depicted in the table 5.7 below:

Table 5.7: Energy Balance Approved for the Control Period

Sl. No	Source	Unit of Measurement	FY 2018-19	FY 2019-20	FY 2020-21
1	Energy Purchase from Eastern Region	MU	976.14	976.14	976.14
2	Interstate Transmission Losses	%	2.12	2.12	2.12
3	Net Purchase from Eastern Region	MU	955.45	955.45	955.45
4	Energy Purchase from North Eastern Region	MU	1038.11	1038.11	1039.11
5	Interstate Transmission	%	2.63	2.63	2.63

Sl. No	Source	Unit of Measurement	FY 2018-19	FY 2019-20	FY 2020-21
	losses of North Eastern Region				
6	Net Availability MU	MU	1010.81	1010.81	1011.78
7	Net availability from CGS & NER	MU	1966.26	1966.26	1967.23
8	Energy available from MePGCL	MU	1164.55	1164.55	1164.55
	Total availability at MePDCL		3130.81	3130.81	3131.78
9	Intra state Transmission losses	%	4.0	4.0	4.0
11	Intra state Transmission losses	MU	125.23	125.23	125.27
12	Total energy available for the Sale in the State	MU	3005.58	3005.58	3006.51
13	Approved Sales within the State	MU	1015.62	1038.36	1062.35
14	Transmission and Distribution loss	%	16.56	12.19	12.00
15	Energy Required for sales within the State	MU	1217.19	1182.51	1207.22
16	Surplus Energy (12-15)	MU	1788.39	1823.07	1799.29
17	Surplus Energy Grossed up	%	4%	4%	4%
18	Surplus Energy	MU	1862.91	1899.03	1874.26

The Surplus energy as approved in the above table shall be grossed up with the intra state loss percentage considered at 4% shall be accounted for during the control period.

5.3 Power Purchase Cost

Licensee's Submission

MePDCL has submitted that power Procurement will be made mainly from MePGCL own State Government and NTPC, NEEPCO, NHPC and OTPC(CGS) to cater the consumers of Meghalaya state as per the firm allocation from CGS and 100 % Generation of MePGCL as approved for the business plan for the control period.

The actual power purchase cost in FY 2016-17 as per the pre-audited Statement of Accounts is as shown below:

Table 5.8: Power Purchase Cost (Provisional) for FY 2016-17

Sl. No	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs.cr)	Total Fixed Cost (Rs.Cr)	Others (Rs.Cr.)	Total Cost (5+6+7) (Rs.Cr)	Unit Cost (Rs. / KWH)
1	2	3	4	5	6	7	8	9
1	MePGCL							
	a) Umiam Stage-I HEP	95.55	70.00	6.69	8.07		14.76	1.54
	b) Umiam Stage-II HEP	49.89	98.00	4.89	4.49		9.37	1.88
	c) Umiam Stage-III HEP	64.76	97.00	6.28	13.46		19.74	3.05
	d) Umiam Stage-IV HEP	164.94	65.00	10.72	13.46		24.18	1.47
	e) Sonapani	7.58	94.00	0.71	0.47		1.18	1.56
	f) Umtru HEP	0.00		0.00	2.51		2.51	2.51
	g) Myntdu-Leshka HEP	440.70	141.50	62.36	67.77		130.13	2.95
2	NTPC							
	a) Farakka STPS					0.04	0.04	
	b) Kahalgaon STPS - I					0.34	0.34	
	c) Kahalgaon STPS -II					-0.23	-0.23	
	d) Talcher STPS - I					0.23	0.23	
	e) B TPS	189.67	320.54	60.80	44.15	0.28	105.23	5.55
3	NHPC							
	a) Loktak HEP	0.00		0.00	0.00	3.82	3.82	
4	NEEPCO							
	a) Kopili HEP	17.36	53.10	0.92	6.78	53.01	60.71	34.98
	b) Kopili - II HEP	0.70	94.30	0.07	0.66	0.03	0.76	10.90
	c) Khandong HEP	2.45	83.40	0.20	2.46	0.11	2.77	11.30
	d) Ranganadi HEP	14.53	99.00	1.44	18.64	0.88	20.95	14.42
	e) Doyang HEP	1.90	256.50	0.49	6.82	0.26	7.57	39.77
	f) AGBPP	50.20	138.70	6.96	31.66	1.18	39.80	7.93
	g) AGTPPCC	32.08	135.31	4.34	15.64	0.07	20.06	6.25
	h) Free Power	75.13	0.00				0.00	0.00
5	OTPC							
	a) Pallatana	436.79	135.42	59.15	67.17	3.88	130.19	2.98
6	Other sources							
	a) Deviation (UI)							
	i) Inter Region	54.36	209.72	11.40			11.40	2.10
	ii) Intra Region	6.36	-134.42	-0.85			-0.85	-1.34
	b) Market (IEX)							
	i) MPPL	8.86	247.41	2.19			2.19	2.47
	c) Swapping							
	i) MPPL	204.18	26.23	5.36			5.36	0.26
	ii) ACL	24.18	0.00	0.00			0.00	0.00
	iii) PTC India Limited	22.32	22.92	0.51			0.51	0.23
	iv) MPL	60.30					0.00	0.00
	v) APPCL	45.40		1.33			1.33	0.29
	vi) GEPL							
7	Other Charges							
	a) Transmission Charges							
	i) MePTCL				83.28		83.28	
	ii) PGCIL	1246.77			97.79	18.55	116.34	0.93
	b) POSOCO Charges			1.04			1.04	
	c) Reactive Charges (Pool)					-0.84	-0.84	
	Total	2070.20					813.87	3.93

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

Table 5.9: Power Purchase Cost (estimated) for FY 2017-18

S. No	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs.Cr)	Total Fixed Cost (Rs.Cr)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr)	Unit Cost (Rs. / KWH)
1	2	3	4	5	6	7	8	9
1	MePGCL							
	a) Umiam Stage-I HEP	100.46	174.00	17.48	10.11		27.59	2.75
	b) Umiam Stage-II HEP	50.23	174.00	8.74	4.01		12.75	2.54
	c) Umiam Stage-III HEP	65.85	174.00	11.46	12.12		23.58	3.58
	d) Umiam Stage-IV HEP	191.17	174.00	33.26	18.04		51.30	2.68
	e) Sonapani	5.85	174.00	1.02	0.44		1.46	2.49
	f) Umtru HEP	0.00	174.00	0.00	3.40		3.40	3.40
	g) Myntdu-Leshka HEP	410.22	379.00	155.47	92.18		247.65	6.04
	h) New Umtru	160.00	221.00	35.36	40.07		75.43	4.71
2	NTPC							
	a) Faraka STPS	48.73	250.00	12.18	6.09		18.27	3.75
	b) Kahalgaon STPS - I	50.45	250.00	12.61	6.31		18.92	3.75
	c) Kahalgaon STPS -II	251.12	250.00	62.78	31.39		94.17	3.75
	d) Talcher STPS – I	67.85	250.00	16.96	8.48		25.44	3.75
	e) BgTPP	372.00	330.15	122.82	45.47		168.29	4.52
3	NHPC							
	a) Loktak HEP	0.00					0.00	
4	NEEPCO							
	a) Kopili HEP	82.23	54.69	0.97	6.99		7.95	0.97
	b) Kopili - II HEP	8.48	97.13	0.07	0.68		0.75	0.89
	c) Khandong HEP	17.53	85.90	0.21	2.53		2.75	1.57
	d) Ranganadi HEP	131.25	101.97	1.51	19.19		20.71	1.58
	e) Doyang HEP	23.65	264.20	0.51	7.02		7.54	3.19
	f) AGBPP	187.65	142.86	7.31	32.61		39.92	2.13
	g) AGTPP	69.00	139.37	9.62	16.11		25.73	3.73
	h) AGTPP C-Cycle	50.00	125.43	6.27	11.75		18.02	3.60
	i) Pare HEP	31.53	150.00	4.73	6.31		11.04	3.50
	j) Free Power							
5	OTPC							
	a) Pallatana	436.79	139.48	60.92	69.18		130.10	2.98
6	Other sources							
	a) Deviation							
	b) Market (IEX)							
	c) Swapping							
7	Other Charges							
	a) Transmission Charges							
	i) MePTCL				169.81		169.81	
	ii) PGCIL	1828.25			175.13		175.13	0.9579

S. No	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs.Cr)	Total Fixed Cost (Rs.Cr)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr)	Unit Cost (Rs. / KWH)
	b) POSOCO Charges							
	c) Open Access Charges							
	d) Reactive Charges (Pool)							
	Total	2812.02					1377.69	4.90

Based on the above submissions, the power purchase cost projected for FY 2018-19 is as follows:

Table 5.10: Power Purchase Cost (projected) for FY 2018-19

S. No	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs.Cr)	Total Fixed Cost (Rs.Cr)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr)	Unit Cost (Rs. / KWH)
1	2	3	4	5	6	7	8	9
1	MePGCL							
	a) Umiam Stage-I HEP	100.46	259.62	26.08	25.61		51.69	5.15
	b) Umiam Stage-II HEP	50.23	329.18	16.53	14.23		30.76	6.12
	c) Umiam Stage-III HEP	105.12	372.78	39.19	42.69		81.87	7.79
	d) Umiam Stage-IV HEP	191.17	236.82	45.27	42.69		87.96	4.60
	e) Sonapani	5.85	167.56	0.98	1.07		2.05	3.50
	f) Umtru HEP	0.00	450.35	0.00	7.97		0.00	7.97
	g) Myntdu-Leshka HEP	410.22	406.67	166.82	194.77		361.59	8.81
	h) New Umtru	219.00	227.63	49.85	41.27		91.12	4.16
	i) Ganol	76.65	227.63	17.45	15.33		32.78	4.28
	j) Lakroh	5.85	227.63	1.33	1.17		2.50	4.28
2	NTPC							
	a) Faraka STPS	48.73	257.50	12.55	6.27		18.82	3.86
	b) Kahalgaon STPS - I	50.45	257.50	12.99	6.50		19.49	3.86
	c) Kahalgaon STPS -II	251.12	257.50	64.66	32.33		96.99	3.86
	d) Talcher STPS – I	67.85	257.50	17.47	8.74		26.21	3.86
	e) BgTPP	558.00	340.06	189.75	46.83		236.59	4.24
3	NHPC							
	a) Loktak HEP						0.00	
4	NEEPCO							
	a) Kopili HEP	82.23	56.33	4.63	7.20		11.83	1.44
	b) Kopili - II HEP	8.48	100.04	0.85	0.70		1.55	1.83
	c) Khandong HEP	17.53	88.48	1.55	2.61		4.16	2.37
	d) Ranganadi HEP	131.25	105.03	13.79	19.77		33.56	2.56
	e) Doyang HEP	23.65	272.12	6.44	7.23		13.67	5.78
	f) AGBPP	187.65	147.15	27.61	33.59		61.20	3.26
	g) AGTPP	69.00	143.55	9.90	16.60		26.50	3.84
	h) AGTPP C-Cycle	50.00	129.19	6.46	12.10		18.56	3.71
	i) Pare HEP	31.53	154.50	4.87	6.50		11.37	3.61
	i) Free Power	0.00	0.00	0.00	0.00		0.00	

S. No	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs.Cr)	Total Fixed Cost (Rs.Cr)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr)	Unit Cost (Rs. / KWH)
5	OTPC							
	a) Pallatana	436.79	143.67	62.75	71.26		134.01	3.07
6	Other sources							
	a) Deviation							
	b) Market (IEX)							
	c) Swapping							
7	Other Charges							
	a) Transmission Charges							
	i) MePTCL				210.61		210.61	
	ii) PGCIL	2014.25			198.73		198.73	0.99
	b) POSOCO Charges						0.00	
	c) Open Access Charges						0.00	
	d) Reactive Charges (Pool)						0.00	
	Total	3178.80					1866.17	5.87

Based on the above submissions, the power purchase cost projected for FY 2019-20 is as follows:

Table 5.11: Power Purchase Cost (projected) for FY 2019-20

S. No	Source	Energy received (MU)	Variable Cost (Ps. /Unit)	Total Variable Cost (Rs.Cr)	Total Fixed Cost (Rs.Cr)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr)	Unit Cost (Rs. / KWH)
1	2	3	4	5	6	7	8	9
1	MePGCL							
	a) Umiam Stage-I HEP	100.46	187.87	18.87	18.53		37.41	3.72
	b) Umiam Stage-II HEP	50.23	238.21	11.96	10.30		22.26	4.43
	c) Umiam Stage-III HEP	105.12	269.76	28.36	30.89		59.25	5.64
	d) Umiam Stage-IV HEP	191.17	171.37	32.76	30.89		63.65	3.33
	e) Sonapani	5.85	121.25	0.71	0.77		1.48	2.53
	f) Umtru HEP	0.00	325.89	0.00	5.77		0.00	5.77
	g) Myntdu-Leshka HEP	410.22	292.84	120.13	140.25		260.38	6.35
	h) New Umtru	219.00	234.46	51.35	42.51		93.86	4.29
	i) Ganol	76.65	234.46	17.97	15.79		33.76	4.40
	j) Lakroh	5.85	234.46	1.37	1.21		2.58	4.40
2	NTPC							
	a) Faraka STPS	48.73	265.23	12.92	6.46		19.38	3.98
	b) Kahalgaon STPS - I	50.45	265.23	13.38	6.69		20.07	3.98
	c) Kahalgaon STPS -II	251.12	265.23	66.60	33.30		99.90	3.98
	d) Talcher STPS - I	67.85	265.23	18.00	9.00		26.99	3.98
	e) BgTPP	558.00	350.26	195.44	48.24		243.68	4.37
3	NHPC							
	a) Loktak HEP						0.00	

S. No	Source	Energy received (MU)	Variable Cost (Ps. /Unit)	Total Variable Cost (Rs.Cr)	Total Fixed Cost (Rs.Cr)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr)	Unit Cost (Rs. / KWH)
4	NEEPCO							
	a) Kopili HEP	82.23	58.02	4.77	7.41		12.18	1.48
	b) Kopili - II HEP	8.48	103.04	0.87	0.72		1.60	1.88
	c) Khandong HEP	17.53	91.13	1.60	2.68		4.28	2.44
	d) Ranganadi HEP	131.25	108.18	14.20	20.36		34.56	2.63
	e) Doyang HEP	23.65	280.28	6.63	7.45		14.08	5.95
	f) AGBPP	187.65	151.56	28.44	34.59		63.03	3.36
	g) AGTPP	69.00	147.85	10.20	17.09		27.30	3.96
	h) AGTPP C-Cycle	50.00	133.07	6.65	12.47		19.12	3.82
	i) Pare HEP	31.53	159.14	5.02	6.69		11.71	3.71
	i) Free Power	0.00	0.00	0.00	0.00		0.00	
5	OTPC							
	a) Pallatana	436.79	147.98	64.63	73.39		138.03	3.16
6	Other sources							
	a) Deviation							
	b) Market (IEX)							
	c) Swapping							
7	Other Charges							
	a) Transmission Charges							
	i) MePTCL				306.40		306.40	
	ii) PGCIL	2014.25			204.70		204.70	1.02
	b) POSOCO Charges						0.00	
	c) Open Access Charges						0.00	
	d) Reactive Charges (Pool)						0.00	
	Total	3178.80					1821.64	5.73

Based on the above submissions, the power purchase cost projected for FY 2020-21 is as follows:

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

S. NO	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs.Cr)	Total Fixed Cost (Rs.cr)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr)	Unit Cost (Rs. / KWH)
1	2	3	4	5	6	7	8	9
1	MePGCL							
	a) Umiam Stage-I HEP	100.46	208.21	20.92	20.54		41.46	4.13
	b) Umiam Stage-II HEP	50.23	263.99	13.26	11.41		24.67	4.91
	c) Umiam Stage-III HEP	105.12	298.95	31.43	34.23		65.66	6.25
	d) Umiam Stage-IV HEP	191.17	189.92	36.31	34.23		70.54	3.69
	e) Sonapani	5.85	134.38	0.79	0.86		1.64	2.81
	f) Umtru HEP	0.00	361.16	0.00	6.39		0.00	6.39
	g) Myntdu-Leshka HEP	410.22	224.80	92.21	107.66		199.88	4.87
	h) New Umtru	219.00	241.49	52.89	43.79		96.67	4.41

S. NO	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs.Cr)	Total Fixed Cost (Rs.cr)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr)	Unit Cost (Rs. / KWH)
	i) Ganol	76.65	241.49	18.51	16.26		34.77	4.54
	j) Lakroh	5.85	241.49	1.41	1.24		2.66	4.54
2	NTPC							
	a) Faraka STPS	48.73	273.18	13.31	6.66		19.97	4.10
	b) Kahalgaon STPS - I	50.45	273.18	13.78	6.89		20.67	4.10
	c) Kahalgaon STPS -II	251.12	273.18	68.60	34.30		102.90	4.10
	d) Talcher STPS – I	67.85	273.18	18.54	9.27		27.80	4.10
	e) BgTPP	558.00	360.77	201.31	49.69		250.99	4.50
3	NHPC							
	a) Loktak HEP						0.00	
4	NEEPCO							
	a) Kopili HEP	82.23	59.76	4.91	7.63		12.55	1.53
	b) Kopili - II HEP	8.48	106.14	0.90	0.75		1.65	1.94
	c) Khandong HEP	17.53	93.87	1.65	2.77		4.41	2.52
	d) Ranganadi HEP	131.25	111.43	14.63	20.97		35.60	2.71
	e) Doyang HEP	23.65	288.69	6.83	7.67		14.50	6.13
	f) AGBPP	187.65	156.11	29.29	35.63		64.92	3.46
	g) AGTPP	69.00	152.29	10.51	17.61		28.11	4.07
	h) AGTPP C-Cycle	51.00	137.06	6.99	12.84		19.83	3.89
	i) Pare HEP	31.53	163.91	5.17	6.89		12.06	3.82
	j) Free Power	0.00	0.00	0.00	0.00		0.00	
5	OTPC							
	a) Pallatana	436.79	152.41	66.57	75.59		142.17	3.25
6	Other sources							
	a) Deviation							
	b) Market (IEX)							
	c) Swapping							
7	Other Charges							
	a) Transmission Charges							
	i) MePTCL				347.22		347.22	
	ii) PGCIL	2015.25			210.94		210.94	1.05
	b) POSOCO Charges							
	c) Open Access Charges							
	d) Reactive Charges (Pool)							
	Total	3179.80					1854.25	5.83

MePDCL petitioned before the Commission to kindly approve the power purchase cost as projected above for FY 2018-19, FY 2019-20 & FY 2020-21.

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 any, 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 notes the following:-

- MePDCL shall follow the above regulations invariably & Merit order procurement shall be strictly followed.
- Licensee has not projected free power from NEEPCO for the control period.
- Commission has called for the reasons for variation in the unit rates of MePGCL generation plants for the control period comparable from the FY 2017-18 approved rates. Also variation of unit rate of NEEPCO Doyang plant at a higher rate was asked to be clarified.
- Licensee has submitted in their letter dated 28.12.2017 that Doyang Plant unit rate for FY 2017-18 is Rs. 5.61/KWh by mistake the rate has been indicated as Rs. 3.19 KWh.
- The Licensee in their letter dated 28.12.2017 has stated that the Power Purchase cost has been projected at the same level that MePGCL has claimed for the MYT control period in respect of the state generation plants. The purchase rate of Leshka project has been projected inclusive of the True-up gap for FY 2013-14, FY 2014-15 & FY 2015-16. It was stated that projection in respect of CGS and NEEPCO stations energy rates has been assumed at 3% increase annually.
- The MePGCL has stated that Umtru HEP (11.20 MW) plant has not generated power from FY 2016-17, after Commissioning of New Umtru HEP 2 X 20 = 40 MW plant (Business plan-Petition Table 3 of MePGCL). The fixed cost projected for Rs. 7.97 Crore, Rs. 5.77 Crore and Rs. 6.39 Crore by MePDCL in the Power Purchase Cost for the MYT Control Period FY 2018-2019 to FY 2020-21 is not considered, since the life of plant has been completed (35 years) and no liability towards Depreciation, Interest Cost, ROE shall be admissible. However O&M costs for Umtru HEP are allowed in the ARR for the control period.
- The PPA of NHPC Loktak plant expired on 01.04.2016, and no energy drawal is projected during the MYT Period FY 2018-19 to FY 2020-21.
- MePDCL has projected Power Procurement from Ganol project, Lakroh HEP at 76.65 MU & 5.85 MU at a cost of Rs 32.78 Crore and Rs. 2.50 Crore respectively during FY 2018-19, FY 2019-20 and FY 2020-21 at Rs.

4.28ps/kWh, Rs.4.40ps/kWh and Rs4.54ps/kWh during the Control Period. Dates of Commissioning of the above plants (COD) and approval of Capital Cost and the tariff rate, details have not been made available. Commission considers the projection of Energy drawal from Ganol HEP, Lakroh HEP for MYT control period FY 2018-19 to FY 2020-21.

- The projected Energy drawal from Lakroh HEP (1.5 mw) is considered at Rs.0.74ps/kWh as per provisional tariff approved in the generation Tariff Order dated 30.03.2013, and the unit rate of Ganol project for 76.65MU has been considered on average (MePGCL plants) rate at Rs.1.90/ kWh.
- The energy balance shows about 1800 MU surplus for FY 2018-19. The licensee shall ensure optimum drawal of energy available from Bongaigaon TPP of NTPC & Doyang HEP of NEEPCO plants whose cost is more than the average unit cost for the FY 2018-19.
- **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.

At the commencement of these Regulations the minimum percentage was specified as follow; subject to provisos indicated in the relevant regulations of the Commission.

YEAR	Minimum quantum of purchase (%) from renewable energy sources (kWh)		
	SOLAR	NON-SOLAR	TOTAL
2015-16	0.41%	1.09%	1.5%
2016-17	0.42%	1.58%	2.0%
2017-18	0.43%	2.07%	2.5%

Licensee has not projected any RPO energy data for the control period as mandated in the Renewable Energy Purchase Obligation and Compliance Regulations 2015.

The Commission however noted that the period as specified in the regulations would lapse on 31st March 2018. Orders relating to the RPO for the Control Period FY 2018-19 onwards shall be issued separately and compliance by the licensee may be ensured.

Commission considering the above analysis power purchase cost for the control period is computed in the following tables.

Table 5.13: Approved Power Purchase cost for FY 2018-19

S. No	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs. Cr.)	Total Fixed Cost (Rs Cr.)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr.)	Unit Cost (Rs. / KWH)
1	2	3	4	5	6	7	8	9
1	MePGCL							
	a) Umiam Stage-I HEP	100.46	0.21	2.11	2.36		4.47	0.45
	b) Umiam Stage-II HEP	50.23	0.39	1.51	1.31		2.82	0.56
	c) Umiam Stage-III HEP	105.12	0.20	3.90	3.92		7.82	0.74
	d) Umiam Stage-IV HEP	191.17	0.19	3.63	3.92		7.55	0.40
	e) Sonapani	5.85	0.18	0.11	0.10		0.21	0.36
	f) Umtru HEP	0.00	-	-	1.79		1.79	-
	g) Myntdu-Leshka HEP	410.22	1.70	69.74	82.97	81.50	234.21	5.71
	h) New Umtru	219.00	0.73	15.98	13.15		29.13	1.33
	i) Ganol	76.65	1.90	14.56	-		14.56	1.90
	j) Lakroh	5.85	0.21	0.12	0.23		0.35	0.60
	Total MePGCL	1164.55	-	111.66	109.75	81.50	302.91	2.48
2	NTPC							
	a) Faraka STPS	48.73	257.50	12.55	6.27		18.82	3.86
	b) Kahalgaon STPS – I	50.45	257.50	12.99	6.50		19.49	3.86
	c) Kahalgaon STPS –II	251.12	257.50	64.66	32.33		96.99	3.86
	d) Talcher STPS – I	67.85	257.50	17.47	8.74		26.21	3.86
	e) BgTPP	558.00	340.06	189.75	46.83		236.59	4.24
	Total NTPC	976.15		297.42	100.67		398.10	4.08
3	NHPC							
	a) Loktak HEP						0.00	
4	NEEPCO							
	a) Kopili – I HEP	82.23	56.33	4.63	7.20		11.83	1.44
	b) Kopili – II HEP	8.48	100.04	0.85	0.70		1.55	1.83
	c) Khandong HEP	17.53	88.48	1.55	2.61		4.16	2.37
	d) Ranganadi HEP	131.25	105.03	13.79	19.77		33.56	2.56
	e) Doyang HEP	23.65	272.12	6.44	7.23		13.67	5.78
	f) AGBPP	187.65	147.15	27.61	33.59		61.20	3.26
	g) AGTPP	69.00	143.55	9.90	16.60		26.50	3.84
	h) AGTPP C-Cycle	50.00	129.19	6.46	12.10		18.56	3.71
	i) Pare HEP	31.53	154.50	4.87	6.50		11.37	3.61
	i) Free Power	0.00	0.00	0.00	0.00		0.00	
	Total NEEPCO	601.32		76.10	106.30		182.40	3.03
5	OTPC							
	a) Pallatana	436.79	143.67	62.75	71.26		134.01	3.07

S. No	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs. Cr.)	Total Fixed Cost (Rs Cr.)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr.)	Unit Cost (Rs. / KWH)
6	Other sources							
	a) Deviation							
	b) Market (IEX)							
	c) Swapping							
7	Other Charges							
	Total			547.93	387.98	81.50	1017.42	
	a) Transmission Charges							
	i) MePTCL	1164.55		66.86			66.86	0.57
	ii) PGCIL	1966.26		194.00			194.00	0.99
	b) POSOCO Charges						0.00	
	c) Open Access Charges						0.00	
	d) Reactive Charges (Pool)						0.00	
8	RPO	-	-	-	-	-	-	-
	Total	3130.81		808.79	387.98	81.50	1278.28	4.08

Table 5.14: Approved Power Purchase cost for FY 2019-20

S. No	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost(Rs.Cr)	Total Fixed Cost (Rs.Cr)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr)	Unit Cost (Rs. / KWH)
1	2	3	4	5	6	7	8	9
1	MePGCL							
	a) Umiam Stage-I HEP	100.46	0.25	2.51	2.84		5.35	0.53
	b) Umiam Stage-II HEP	50.23	0.35	1.76	1.56		3.32	0.66
	c) Umiam Stage-III HEP	105.12	0.34	3.57	4.68		8.25	0.78
	d) Umiam Stage-IV HEP	191.17	0.23	4.40	4.68		9.08	0.47
	e) Sonapani	5.85	0.22	0.13	0.12		0.25	0.43
	f) Umtru HEP	0.00	-	-	1.89		1.89	-
	g) Myntdu-Leshka HEP	410.22	1.18	48.41	81.64	81.50	211.55	5.17
	h) New Umtru	219.00	0.72	15.77	13.00		28.77	1.31
	i) Ganol	76.65	1.72	13.19	-		13.19	1.72
	j) Lakroh	5.85	0.16	0.09	0.17		0.26	0.44
	Total for MePGCL	1164.55		89.83	110.58	81.50	281.91	2.42
2	NTPC							
	a) Faraka STPS	48.73	265.23	12.92	6.46		19.38	3.98
	b) Kahalgaon STPS - I	50.45	265.23	13.38	6.69		20.07	3.98
	c) Kahalgaon STPS -II	251.12	265.23	66.60	33.30		99.90	3.98
	d) Talcher STPS - I	67.85	265.23	18.00	9.00		26.99	3.98
	e) BgTPP	558.00	350.26	195.44	48.24		243.68	4.37
	Total for NTPC	976.15		306.34	103.69		410.02	4.20
3	NHPC						0.00	
	a) Loktak HEP							
4	NEEPCO							
	a) Kopili-I HEP	82.23	58.02	4.77	7.41		12.18	1.48
	b) Kopili - II HEP	8.48	103.04	0.87	0.72		1.60	1.88

S. No	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs. Cr)	Total Fixed Cost (Rs. Cr)	Others (Rs. Cr)	Total Cost (5+6+7) (Rs. Cr)	Unit Cost (Rs. / KWH)
	c) Khandong HEP	17.53	91.13	1.60	2.68		4.28	2.44
	d) Ranganadi HEP	131.25	108.18	14.20	20.36		34.56	2.63
	e) Doyang HEP	23.65	280.28	6.63	7.45		14.08	5.95
	f) AGBPP	187.65	151.56	28.44	34.59		63.03	3.36
	g) AGTPP	69.00	147.85	10.20	17.09		27.30	3.96
	h) AGTPP C-Cycle	50.00	133.07	6.65	12.47		19.12	3.82
	i) Pare HEP	31.53	159.14	5.02	6.69		11.71	3.71
	i) Free Power	0.00	0.00	0.00	0.00		0.00	
	Total for NEEPCO	601.32		78.38	109.46		187.86	3.12
5	OTPC							
	a) Pallatana	436.79	147.98	64.63	73.39		138.03	3.16
6	Other sources							
	a) Deviation							
	b) Market (IEX)							
	c) Swapping							
7	Other Charges							
	Total			539.17	397.12	81.50	1017.79	
	a) Transmission Charges							
	i) MePTCL	1164.55		98.64			98.64	0.85
	ii) PGCIL	1966.26		199.82			199.82	1.02
	b) POSOCO Charges						0.00	
	c) Open Access Charges						0.00	
	d) Reactive Charges (Pool)							
8	RPO	-	-	-	-	-	-	-
	Total	3130.81		837.63	397.12	81.50	1316.25	4.20

Table 5.15: Approved Power purchase cost for FY 2020-21

S. NO	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs. Cr.)	Total Fixed Cost (Rs. Cr.)	Others (Rs. Cr)	Total Cost (5+6+7) (Rs. Cr)	Unit Cost (Rs. / KWH)
1	2	3	4	5	6	7	8	9
1	MePGCL							
	a) Umiam Stage-I HEP	100.46	0.27	2.71	3.14		5.85	0.58
	b) Umiam Stage-II HEP	50.23	0.38	1.91	1.74		3.65	0.73
	c) Umiam Stage-III HEP	105.12	0.38	3.89	5.23		9.12	0.87
	d) Umiam Stage-IV HEP	191.17	0.25	4.78	5.23		10.01	0.52
	e) Sonapani	5.85	0.24	0.14	0.13		0.27	0.46
	f) Umtru HEP	0.00	-	-	2.00		2.00	-
	g) Myntdu-Leshka HEP	410.22	1.67	68.51	81.30		149.81	3.65
	h) New Umtru	219.00	0.69	15.11	12.43		27.54	1.28
	i) Ganol	76.65	1.90	14.55	-		14.55	1.90
	j) Lakroh	5.85	0.17	0.10	0.20		0.30	0.51
	Total for MePGCL	1164.55		111.71	111.40		223.10	1.92

S. NO	Source	Energy received (MU)	Variable Cost (Ps. / Unit)	Total Variable Cost (Rs. Cr.)	Total Fixed Cost (Rs.Cr.)	Others (Rs.Cr)	Total Cost (5+6+7) (Rs.Cr)	Unit Cost (Rs. / KWH)
2	NTPC							
	a) Faraka STPS	48.73	273.18	13.31	6.66		19.97	4.10
	b) Kahalgaon STPS - I	50.45	273.18	13.78	6.89		20.67	4.10
	c) Kahalgaon STPS -II	251.12	273.18	68.60	34.30		102.90	4.10
	d) Talcher STPS – I	67.85	273.18	18.54	9.27		27.81	4.10
	e) BgTPP	558.00	360.77	201.31	49.69		251.00	4.50
	Total for NTPC	976.15		315.54	106.81		422.35	4.33
3	NHPC							
	a) Loktak HEP						0.00	
4	NEEPCO							
	a) Kopili-I HEP	82.23	59.76	4.91	7.63		12.54	1.53
	b) Kopili - II HEP	8.48	106.14	0.90	0.75		1.65	1.94
	c) Khandong HEP	17.53	93.87	1.65	2.77		4.42	2.52
	d) Ranganadi HEP	131.25	111.43	14.63	20.97		35.60	2.71
	e) Doyang HEP	23.65	288.69	6.83	7.67		14.50	6.13
	f) AGBPP	187.65	156.11	29.29	35.63		64.92	3.46
	g) AGTPP	69.00	152.29	10.51	17.61		28.12	4.07
	h) AGTPP C-Cycle	51.00	137.06	6.99	12.84		19.83	3.89
	i) Pare HEP	31.53	163.91	5.17	6.89		12.06	3.82
	i) Free Power	0.00	0.00	0.00	0.00		0.00	
	Total for NEEPCO	602.32		80.88	112.76		193.64	3.21
5	OTPC							
	a) Pallatana	436.79	152.41	66.57	75.59		142.16	3.25
6	Other sources							
	a) Deviation							
	b) Market (IEX)							
	c) Swapping							
7	Other Charges							
	Total			574.70	404.56		981.25	
	a) Transmission Charges							
	i) MePTCL	1164.55		143.13			143.13	1.23
	ii) PGCIL	1967.23		205.91			205.91	1.05
	b) POSOCO Charges							
	c) Open Access Charges							
	d) Reactive Charges (Pool)							
8	RPO	-	-	-	-	-	-	-
	Total	3131.78		923.74	404.56		1330.29	4.24

Table 5.16: Approved Power Purchase cost for Control Period

(Rs.Cr)

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Projected by MePDCL	1866.17	1821.64	1854.25
Approved by MSERC	1017.42	1017.79	981.25

Commission approves the Power Purchase Cost at Rs. 1017.42 Cr, Rs.1017.79 Cr, Rs.981.25 Cr for the FY 2018-19, FY 2019-20 and FY 2020-21 respectively.

5.4 Transmission Charges

Petitioner's Submission

MePDCL has projected the Transmission Charges as stated in the Table 5.17.

Table 5.17: Transmission Charges for Control Period projected

(Rs. Cr)				
Sl. No	Particulars	FY 2018-19(Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	MePTCL	210.61	306.40	347.22
2	PGCIL	198.73	204.70	210.94
3	Total	409.34	511.10	558.16

MePDCL has stated that PGCIL charges are claimed as determined by CERC with 3% escalation over existing rates. MePTCL charges are proposed based on the projected ATC of Transmission utility, and requested to approve the same for the Control period.

Commission's Analysis

Commission after prudent check of the projections made, considers the Transmission Charges limited to the Actual Energy availability for Meghalaya state as detailed in the Table 5.18.

Table 5.18: Transmission Charges approved

(Rs. Cr)							
Sl. No	Particulars	FY 2018-19		FY 2019-20		FY 2020-21	
		Energy Drawal (MU)	Transmission Charges (Rs. Cr)	Energy Drawal (MU)	Transmission Charges (Rs. Cr)	Energy Drawal (MU)	Transmission Charges (Rs. Cr)
1	MePTCL	1164.55	66.86	1164.55	98.64	1164.55	143.13
2	PGCIL	1966.26	194.00	1966.26	199.82	1967.23	205.91
	Total	3130.81	260.86	3130.81	298.46	3131.78	349.04

5.5 Employee Expenses

Petitioner's Submission

MePDCL has projected the Employee Expenses at Rs.149.95 Crore, Rs.158.30 Crore, Rs 166.33 Crore for the 2nd Control Period DY 2018-19, FY 2019-20 and FY 2020-21 as depicted in the table 8 of the petition, and with the following assumption.

MePDCL has stated that as per the policy, MeECL and its subsidiary companies have implemented a revised pay scale of employees effective from January 2015. Supporting documents for Revision of pay has been attached to the petition as Annexure D. The employee cost for the control period is projected by considering the revised pay of Employees as reflected in account statements of FY 2015-16 and FY 2016-17. The effect of increase in employee cost has been booked under the head ROP 2015 in statement of accounts. The following assumptions were taken to arrive at the revised pay of Employees:

The petitioner (MePDCL) has stated the projection is made considering the expenditure reflected in the Accounts statements of FY 2015-16 and FY 2016-17 duly escalating the Basic pay at 3% Dearness Allowance at 12% for FY 2018-19.

The other allowances remain at the level of FY 2016-17. The terminal benefit provision for FY 2017-18 considered at an increment of 3% (claimed for true up). No yearly recruitment of technical and non-technical staff is considered.

Basic Pay = on a yearly basis the permanent employees of MePDCL are given an increment of 3%.

Dearness Allowance (DA) = The DA is taken around 12% of basic pay for FY 2018-19

The other allowance is estimated to remain at the same level as FY 2016-17.

Terminal benefit provision for FY 2017-18 has been considered at an increment of 3%. However the same will be claimed as per the actual at the time of true-up.

The yearly recruitment of technical and non-technical staff is not considered for projection of cost.

Based on the above submissions, the employee expenses projected by the petitioner for the control period is as shown 5.19:

Table 5.19: Employee Expenses Projected

(Rs.Cr)

Sl. No	Particulars	FY 2015-16 (Actual)	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	2	3	4				
	SALARIES & ALLOWANCES						
1	Basic Pay	44.31	42.20	69.68	71.77	73.92	76.14
2	Dearness Pay	0.00	-	-	-	-	-
3	Dearness Allowance	19.90	24.30	27.21	30.48	34.1	38.23
4	House rent Allowance	7.57	7.51	8.26	9.09	10.00	11.00
5	Fixed medical allowance	0.00	-	-	-	-	-
6	Medical reimbursement charges	0.64	0.75	0.75	0.77	0.79	0.82
7	Over time payment	0.30	0.47	0.47	-	0.47	-
8	ROP-2015	14.00	25.45		-	-	-
9	Generation incentive	0.09	0.12	0.13	0.13	0.14	0.14
10	Leave Travel Concession	0.00	0.01	0.01	0.01	0.01	0.01
11	Apportionment of Holding company Exp	16.92	13.17	13.57	13.98	14.40	14.83
12	Sub-Total	103.74	113.99	120.09	126.23	133.87	141.17
	Terminal Benefits						
13	Leave encashment	0.02	0.01	0.01	0.01	0.01	0.01
14	Gratuity	0.00	-	-	-	-	-
15	Commutation of Pension	0.00	-	-	-	-	-
16	Staff Welfare expenses	0.06	0.02	0.02	0.02	0.02	0.02
17	CPS	0.28	0.35	0.36	0.37	0.38	0.39
18	Workman compensation	0.00	-	-	-	-	-
19	Ex- gratia	0.02	0.02	0.02	0.02	0.02	0.02
20		20.06	21.96	22.62	23.30	24.00	24.72
21	Sub-Total	20.43	22.36	23.03	23.72	24.43	25.16
	Pension Payment						
22	Basic Pension	0.00	-	-	-	-	-
23	Dearness Pension	0.00	-	-	-	-	-
24	Dearness allowance	0.00	-	-	-	-	-
25	Any other expenses	0.00	-	-	-	-	-
26	Sub-Total	-	-	-	-	-	-
27	Total (12+21)	124.18	136.35	143.11	149.95	158.30	166.33
28	Amount capitalized						
29	Net amount	124.18	136.35	143.11	149.95	158.30	166.33

Commission's Analysis

The petitioner has stated that MeSEB had a policy of revision of pay scales of Employees for every 5 years. The last revision of pay scales has been done in 2015.

MePDCL has projected employee cost for control period inclusive of MeECL cost at Table 8 of the Petition.

Commission had approved the ARR for first MYT control period FY 2015-16 to FY 2017-18 in which the pay revision principles was considered as projected by MePDCL. The norms for pay fixation was as stated below.

New Basic pay= Existing Basic Pay + DA + 12 % + Yearly increment.

DA	FY 2015-16	H1 3% of Basic Pay H2 4%
	FY 2016-17	H1 8 – 10% of Basic Pay H2 12%
	FY 2017-18	H1 16% of Basic Pay H2 20%

The Licensee has stated that revised pay impact has been booked in FY 2016-17. Thus actual basic pay shown at Rs. 42.20 Crores has been increased to Rs. 67.65 Crores. Likewise subsequent year basic pay has been increased by 3% for FY 2017-18 & FY 2018-19.

However, DA is considered at 12% for FY 2018-19 works out to Rs.8.61 Crores as against 30.48 Crores Projected.

The above projections appear to be the result of miscalculations and are reworked. The admissible employee cost inclusive of MeECL cost for control period is as indicated in table 5.20.

The details in Sl. No. 20 of the table indicating employee cost is left blank, presumably it is related to contribution to provident and other funds as per the provisional statement of accounts for FY 2016-17.

Commission considering the submission of the licensee has approved the employee cost for the control period as detailed in the table 5.20:

Table 5.20: Approved Employee's cost for the control period

(Rs.cr)						
Sl. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
	SALARIES ALLOWANCES					
1	Basic Pay incl. ROP 2015	67.65	69.68	71.77	73.92	76.14
2	Dearness Pay	-	-	-	-	-
3	Dearness Allowance	8.12	8.36	8.61	8.87	9.14
4	House rent Allowance	7.51	8.26	9.09	10	11

5	Fixed Medical allowance	-	--	-	-	-
6	Medical reimbursement charges	0.75	0.75	0.77	0.79	0.82
7	Over time payment	0.47	0.47		0.47	
8	ROP-2015	-	-	-	-	-
9	Generation incentive	0.12	0.13	0.13	0.14	0.14
10	Leave Travel Concession	0.01	0.01	0.01	0.01	0.01
11	Apportionment of Holding Corporation Exp. (MeECL cost)	13.17	13.57	13.98	14.4	14.83
12	Sub Total	97.80	101.23	104.36	108.60	112.08
	Terminal Benefits					
13	Leave encashment	0.01	0.01	0.01	0.01	0.01
14	Gratuity	-	-	-	-	-
15	Commutation of Pension	-	-	-	-	-
16	Staff Welfare expenses	0.02	0.02	0.02	0.02	0.02
17	CPS	0.35	0.36	0.37	0.38	0.39
18	Workman compensation	-	-	-	-	-
19	Ex-gratia	0.02	0.02	0.02	0.02	0.02
20		21.96	22.62	23.3	24.00	24.72
21	Sub-Total	22.36	23.03	23.72	24.43	25.16
	Pension payment					
22	Basic Pension	-	-	-	-	-
23	Dearness Pension	-	-	-	-	-
24	Dearness Allowance	-	-	-	-	-
25	Any other expenses	-	-	-	-	-
26	Sub-Total	-	-	-	-	-
27	Total (12+21)	120.16	124.26	128.08	133.03	137.24
28	Amount capitalized	-	-	-	-	-
29	Net amount	120.16	124.26	128.08	133.03	137.24

Commission approves Employee expenses for the Control Period as in table 5.21:

Table 5.21: Approved Employee expenses

(Rs.Cr)

Sl.No.	Particulars	FY2018-19	FY2019-20	FY2020-21
1	Projected by MePDCL	149.95	158.30	166.23
2	Approved by the MSERC	128.08	133.03	137.24

5.6 Repairs and Maintenance Expenses

Petitioner's Submission

MePDCL has submitted that Meghalaya, being a hilly terrain demands comparatively more investment for maintaining the distribution network. 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.

MePDCL has projected R & M expenses considering inflation rate of 5 % (CPI) as projected by RBI for the next 2 years as detailed in the table 5.22 for Control Period

Table 5.22 : Repair & Maintenance (R&M) Expense for Control Period Projected

(Rs.Cr)

Sl. No	Particulars	FY 2015-16 (Actual)	FY 2016-17 (Provisional)	FY 2017-18 (Projected)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Plant & Machinery	0.46	1.68	1.76	1.85	1.94	2.04
2	Building	0.13	0.17	0.18	0.19	0.20	0.21
3	Hydraulic works & Civil Works	0.08	0.00	0.00	0.00	0.00	0.00
4	Line cable & Network	2.32	7.51	7.89	8.28	8.69	9.13
5	Vehicles	0.31	0.34	0.36	0.37	0.39	0.41
6	Furniture & Fixtures	0.03	0.04	0.04	0.04	0.05	0.05
7	Office equipments	0.28	0.32	0.34	0.35	0.37	0.39
8	Operating expenses/ Civil Works	0.06	0.05	0.05	0.06	0.06	0.06
10	Add / Deduct share of other						
11	Total expenses	3.67	10.11	10.62	11.15	11.70	12.29
12	Less capitalized						
13	Net expenses	3.67	10.11	10.62	11.15	11.70	12.29

MePDCL has requested to approve the R& M expenses as shown in the above table for the Control period.

Commission's Analysis

MePDCL has not filed true up petition for FY 2016-17 together with the audited accounts. The Govt. of India notified inflation rate at 3.33% for FY 2016-17 over FY 2015-16. The justification for projection of R & M expenses for Control Period at inflation rate of 5 % is not valid. The actual R & M expenses projected at Rs. 3.67 Crore for FY 2015-16, shall be Rs.3.72Cr after adjusting MeECL cost for FY 2015-16. Even if the escalation is considered at 5% over the FY 2015-16 onwards it would be

Rs. 4.31 Crores for FY 2018-19 inclusive of MeECL cost. Commission considers R & M expenses at Rs. 4.31 Crore, Rs. 4.52 Crore, and Rs.4.75 Crore for the Control Period.

Commission approves R&M expenses as shown in the table 5.23 for the control period.

Table 5.23: Approved R & M Expenses for the Control Period

(Rs. Cr)

Particulars	FY2018-19	FY2019-20	FY2020-21
Projected by MePDCL	11.15	11.70	12.29
Approved by MSERC	4.31	4.52	4.75

5.7 Administration and General Expenses

Petitioner's submission

MePDCL has projected Administration & General expenses at Rs. 11.46 Crore, Rs.12.04 Crore, Rs. 12.64 Crore for the Control period FY 2018-19, FY 2019-20, FY 2020-21 respectively. The Licensee has stated that 5 % inflation rate considered for projections for 3 years.

The details are furnished in the Table 5.24:

Table 5.24: Administrative & General Expenses for the Control Period Projected

(Rs.Cr)

Sl. No	Particulars	FY 2015-16 (Actual)	FY 2016-17 (Provisional)	FY 2017-18 (Projected)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Rent, rates & taxes	0.11	0.07	0.07	0.08	0.08	0.09
2	Insurance	0.04	0.05	0.05	0.06	0.06	0.06
3	Telephone, postage & Telegrams	0.14	0.21	0.22	0.23	0.24	0.26
4	Consultancy fees	1.43	3.14	3.30	3.46	3.63	3.82
5	Technical fees	0.00	0.00	0.00	0.00	0.00	0.00
6	Other professional charges	0.81	0.49	0.51	0.54	0.57	0.60
7	Conveyance & travel expenses	4.52	5.42	5.69	5.98	6.27	6.59
8	Electricity & Water charges	0.01	0.01	0.01	0.01	0.01	0.01
9	Others	0.58	0.38	0.40	0.42	0.44	0.46
10	MSERC Fees	0.12	0.12	0.12	0.13	0.13	0.14
11	Freight	0.00	0.00	0.00	0.00	0.00	0.00
12	Other material related expenses	0.51	0.51	0.54	0.56	0.59	0.62
13	Total expenses	8.27	10.40	10.92	11.46	12.04	12.64
14	Less: Capitalized						

Sl. No	Particulars	FY 2015-16 (Actual)	FY 2016-17 (Provisional)	FY 2017-18 (Projected)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
15	Net expenses	8.27	10.40	10.92	11.46	12.04	12.64

Commission's Analysis

The actual Administration and General Expenses for FY 2015-16 are at Rs. 8.27 Crore including MeECL cost. The provisional expenses for FY 2016-17 are 25.76% excess over the actuals of FY 2015-16 and computed at 5% of escalation for subsequent years.

Licensee has not filed petition for the true-up of business for FY 2016-17 together with audited accounts.

Commission considers 5% escalation over FY 2015-16 actual year on year the Administration and General Expenses and approves at Rs. 9.57 Crore, and Rs. 10.05 Crore and Rs. 10.55 Crore for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 respectively including MeECL expenses.

Commission approves A&G expenses for the control period as detailed in the table 5.25:

Table 5.25: Approved A&G Expenses for the Control period

Particulars	(Rs.Cr)		
	FY2018-19	FY2019-20	FY2020-21
Projected by MePDCL	11.46	12.04	12.64
Approved by MSERC	9.57	10.05	10.55

5.8 Capital Investment

Petitioner's Submission

MePDCL has submitted the investment plan under the following schemes to be implemented during Control Period in the business plan.

- 1) NERP SIP funded by Government of India and Government of Meghalaya.
- 2) Power System Development Fund, 100 % Grant.
- 3) Ujwal Discom Assurance Yojana (UDAY)
- 4) Indo - Bangla Border Flood lighting (100% contribution).
- 5) IPDS 90 % Grant and 10 % Loan.

- 6) DDUGJY 85% GOI 15 % State Government
7) Other up gradation of Lines & Sub- stations.

Table 5.26 : Summary of the project wise Investment Projected

(Rs. Cr)

Schemes	Project Cost	Funding Pattern			
		Equity	Loan	Grant	Consumer Contribution
New Schemes					
NER Power System Improvement Project	0.20		0.01	0.19	
Construction/ Up gradation of lines	94.95		26.59	68.36	
Construction/ Up gradation of Substations	156.20		43.74	112.46	
System Protection, Control system, metering etc.	8.64		2.42	6.22	
UDAY	360.80		101.02	259.77	
Scheme funded by Power System Development Fund	2.97			2.97	
Deendayal Upadhyay Gram Jyoti Yojna	41.92			41.92	
Total for New Schemes	665.68		173.77	491.90	
Ongoing Schemes					
NER Power System Improvement Project	178.03		5.79	110.07	
Integrated Power Development Scheme	62.04		6.20	55.84	
Deendayal Upadhyay Gram Jyoti Yojna	268.13			268.13	
Indo Bangla Border Flood Lighting	107.92				107.92
Total for ongoing Schemes	553.95		11.99	434.03	107.92
Grant Total	1219.63		185.77	925.93	107.92

Summary of Funding of Capex year on year**Table 5.27: Year wise Fund requirement for new schemes**

(Rs. Cr)

Sl. No.	Category	Fund Requirement				
		FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Total
1	33 kV, 11 kV and LT Lines	--	37.10	61.03	33.92	132.05
2	33/11 & Distribution Sub Station	--	8.00	133.18	31.70	172.88
3	UDAY	111.67	205.82	38.31	5.00	360.80
	Total	111.67	250.92	232.52	70.61	665.72

Commission's Analysis

Commission had approved business plan for control period on 01.11.2017.

MePDCL shall implement the loss reduction (Projects) Schemes Contemplated in the Light of the UJWAL Discom Assurance Yojana (UDAY) by FY 2019-20, All other ongoing Projects are being funded by Government of India Grants, Consumer Contributions (DC works) as depicted in the **table 5.28**.

Commission has examined the Investment Plan with reference to the projected ongoing works. The summary of Project Funding submitted for Business Plan for the Control Period is approved provisionally in the Table 5.28.

Table 5.28: Scheme-wise/work-wise capital investment plan approved for FY 2017-18 and MYT Control Period FY 2018-19 to FY 2020-21

Sl. No.	Name of the Scheme/Project	Approved Outlay	(Rs.Cr)															
			Source of funding				up to FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21		FY 2021-22		Total	
			Grant	Consumer contribution	Loan	Total	Capex	Capitalisation	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	16	17	18 = (8+10+12+14+16)	19 = (9+11+13+15+17)
A	Lines																	
1	DDUGJY	33.93	33.93	-		33.93	-	-	33.93	33.93	-	-	-	-	-	-	33.93	33.93
2	ADB	94.95	68.37	-	26.58	94.95	-	-			61.03	61.03	33.92	33.92	-	-	94.95	94.95
3	PSDF	2.97	2.97	-		2.97	-	-	2.97	2.97	-	-	-	-	-	-	2.97	2.97
4	NERPSIP	0.20	0.19	-	0.01	0.20	-	-	0.20	0.20	-	-	-	-	-	-	0.20	0.20
	Sub-total - Lines (A)	132.05	105.46	-	26.59	132.05	-	-	37.10	37.10	61.03	61.03	33.92	33.92	-	-	132.05	132.05
B	Substations																	
5	DDUGJY (2 nos Substations)	8.00	8.00	-		8.00	-	-	8.00	-	-	8.00	-	-	-	-	8.00	8.00
6	ADB (39 nos Substations)	156.24	112.49	-	43.75	156.24	-	-	-	-	128.00		28.24	132.24	-	24.00	156.24	156.24
	Sub-total - Substations (B)	164.24	120.49	-	43.75	164.24	-	-	8.00	0.00	128.00	8.00	28.24	132.24	-	24.00	164.24	164.24
C	Other works																	
7	Installation of 11kV auto reclosure in place of DO Fuse control protection system in 39 Nos. unmanned 33/11kV SS in 108 nos of 11kV Feeders	8.64	6.22	-	2.42	8.64	-	-	-	-	5.18		3.46	8.64	-	-	8.64	8.64

Sl. No.	Name of the Scheme/Project	Approved Outlay	Source of funding				up to FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21		FY 2021-22		Total	
			Grant	Consumer contribution	Loan	Total	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation
D	UDAY schemes																	
8	Distribution transformer metering	4.98	3.59	-	1.39	4.98	1.14	1.14	3.84	3.84	-	-	-	-	-	-	4.98	4.98
9	Consumer indexing and GIS mapping	32.28	23.24	-	9.04	32.28	-	-	16.14	16.14	16.14	16.14	-	-	-	-	32.28	32.28
10	DTR associated feeder upgradation	19.98	14.39	-	5.59	19.98	5.00	5.00	5.00	5.00	5.00	5.00	4.98	4.98	-	-	19.98	19.98
11	Electricity access to unconnected households	59.26	42.67	-	16.59	59.26	23.57	23.57	35.69	35.69	-	-	-	-	-	-	59.26	59.26
12	ERP System implementation	35.00	25.20	-	9.80	35.00	17.50	17.50	17.50	17.50	-	-	-	-	-	-	35.00	35.00
13	Distribution of energy efficient tubelights and fans	27.67	19.92	-	7.75	27.67	13.84	13.84	13.83	13.83	-	-	-	-	-	-	27.67	27.67
14	Consumer awareness programme	1.22	0.88	-	0.34	1.22	0.61	0.61	0.61	0.61	-	-	-	-	-	-	1.22	1.22
15	Installation of smart meters for consumers with consumption above 200 units/month	180.40	129.89	-	50.51	180.40	50.02	50.02	113.21	113.21	17.17	17.17	-	-	-	-	180.40	180.40
	Sub-total - UDAY scheme (D)	360.79	259.78	-	101.01	360.79	111.68	111.68	205.82	205.82	38.31	38.31	4.98	4.98	-	-	360.79	360.79
	Total (A to D)	665.72	491.95	-	173.77	665.72	111.68	111.68	250.92	242.92	232.52	107.34	70.60	179.78	-	24.00	665.72	665.72

Sl. No.	Name of the Scheme/Project	Approved Outlay	Source of funding				up to FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21		FY 2021-22		Total	
			Grant	Consumer contribution	Loan	Total	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation
	Ongoing schemes																	
16	Lines and Substations	177.90	165.90	-	12.00	177.90			115.86	115.86	62.04	62.04			-	-	177.90	177.90
17	DDUGJY Ph-I	98.80	98.80			98.80	98.80	98.80									98.80	98.80
18	DDUGJY Ph-II	89.89	89.89			89.89	89.89	89.89									89.89	89.89
19	SAGY	1.25	1.25			1.25	1.25	1.25									1.25	1.25
20	System strengthening	54.80	54.80			54.80	54.80	54.80									54.80	54.80
21	Feeder metering etc.	15.16	15.16			15.16	15.16	15.16									15.16	15.16
22	Solar electrification - Households/street lights	8.23	8.23			8.23	8.23	8.23									8.23	8.23
23	Indo Bangla Border lighting	107.92		107.92		107.92	107.92	107.92									107.92	107.92
	sub-total ongoing schemes	553.95	434.03	107.92	12.00	553.95	376.05	376.05	115.86	115.86	62.04	62.04	0.00	0.00	0.00	0.00	553.95	553.95
	Total capital investment	1219.67	925.98	107.92	185.77	1219.67	487.73	487.73	366.78	358.78	294.56	169.38	70.60	179.78	0.00	24.00	1219.67	1219.67

5.8.1 The Capitalization of Assets as per the Business plan approved against grants and Loans

Table 5.29: Approved Capitalization against Grants & Loan for the control period

(Rs.Cr)

Particulars	Grants	Consumer Contribution	Loans	CAPEX	Capitalization	CWIP
FY 2017-18	328.16	107.92	75.65	487.73	487.73	-
FY 2018-19	324.05	-	34.73	366.78	358.78	8.00
FY 2019-20	147.72	-	21.66	294.56	169.38	133.18
FY 2020-21	126.05	-	53.73	70.60	179.78	24.00
	925.98	107.92	185.77	107.92	1195.67	-

Table 5.30: CAPEX= CWIP – Capitalization Approved for the Control period

(Rs.Cr)

Particulars	FY 2017-18	FY2018-19	FY2019-20	FY 2020-21
Opening Balance CWIP	487.73	366.78	8.00	133.18
Capex addition	-	-	294.56	70.60
Capitalization	487.73	358.78	169.38	179.78
Closing Balance CWIP	-	8.00	133.18	24.00

Commission approves the capital expenditure and capitalization and CWIP for the control period as analysed in the above tables

5.9 Depreciation

Petitioner's Submission

MePDCL has stated that Depreciation is computed based on the pre audited statement of Accounts of FY 2016-17 as base year. The additions in GFA for the control period have been considered based on the Capitalization in the approved Business Plan.

The Depreciation has been computed as depicted in the tables below for the control Period.

Table 5.31: Actual Depreciation projected for FY 2016-17

(Rs. Cr)

VALUE ASSETS AND DEPRECIATION: 2016-17 (Provisional)						
Sl. No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	2.23	0.16	0.14	2.25	0.00
2	Buildings	7.91	0.00	0.00	7.91	0.25
3	Hydraulic works	0.01	0.08	0.00	0.09	0.00
4	Other Civil works	3.84	0.01	0.00	3.85	0.10
5	Plant & Machinery	38.59	0.85	0.00	39.44	1.54
6	Lines & Cables	290.55	9.06	0.00	299.61	13.14
7	Vehicles	3.09	0.53	0.25	3.37	0.07
8	Furniture	1.61	0.00	0.00	1.61	0.05
9	Office equipment	2.56	0.17	0.00	2.73	0.12
	Less: Amortization of Assets Created out of Grants					4.77
	TOTAL:	350.39	10.85	0.39	360.86	10.51

Table 5.32: Estimated Depreciation FY 2017-18

(Rs.Cr)

VALUE ASSETS AND DEPRECIATION: 2017-18						
(Estimated)						
Sl. No.	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	2.25	3.03		5.28	0.00
2	Buildings	7.91	10.69		18.60	0.44
3	Hydraulic works	0.09	0.13		0.22	0.01
4	Other Civil works	3.85	5.20		9.05	0.22
5	Plant & Machinery	39.44	53.30		92.74	3.84
6	Lines & Cables	299.61	404.96		704.57	26.51
7	Vehicles	3.37	4.55		7.92	0.54
8	Furniture	1.61	2.18		3.80	0.17
9	Office equipment	2.73	3.68		6.41	0.29
	Less: Amortization of Assets Created out of Grants					10.44
	TOTAL	360.86	487.73	0.00	848.59	21.57

Table 5.33: Depreciation Projected for FY 2018-19

(Rs. Cr)

VALUE ASSETS AND DEPRECIATION: 2018-19						
Sl.No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	5.28	2.23		7.51	0.00
2	Buildings	18.60	7.86		26.46	0.75
3	Hydraulic works	0.22	0.09		0.31	0.01
4	Other Civil works	9.05	3.83		12.88	0.37
5	Plant & Machinery	92.74	39.21		131.95	6.52
6	Lines & Cables	704.57	297.89		1,002.46	45.07
7	Vehicles	7.92	3.35		11.27	0.91
8	Furniture	3.80	1.61		5.40	0.29
9	Office equipment	6.41	2.71		9.12	0.49
	Less: Amortization of Assets Created out of Grants					22.51
	TOTAL	848.59	358.78	0.00	1,207.37	31.91

Table 5.34: Depreciation Projected for FY 2019-20

(Rs. Cr)

VALUE ASSETS AND DEPRECIATION: 2019-20						
Sl.No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	7.51	1.05		8.57	0.00
2	Buildings	26.46	3.71		30.17	0.95
3	Hydraulic works	0.31	0.04		0.36	0.02
4	Other Civil works	12.88	1.81		14.68	0.46
5	Plant & Machinery	131.95	18.51		150.46	8.20
6	Lines & Cables	1,002.46	140.63		1,143.09	56.64
7	Vehicles	11.27	1.58		12.85	1.15
8	Furniture	5.40	0.76		6.16	0.37
9	Office equipment	9.12	1.28		10.40	0.62
	Less: Amortization of Assets Created out of Grants					38.26
	TOTAL	1,207.37	169.38	0.00	1,376.75	30.13

Table 5.35: Depreciation Projected for FY 2020-21

(Rs. Cr)

VALUE ASSETS AND DEPRECIATION: 2020-21						
Sl.No	Particulars	Opening GFA	Addition	Withdrawn	Closing GFA	Depreciation
1	Land	8.57	1.12		9.69	0.00
2	Buildings	30.17	3.94		34.11	1.07
3	Hydraulic works	0.36	0.05		0.40	0.02
4	Other Civil works	14.68	1.92		16.60	0.52
5	Plant & Machinery	150.46	19.65		170.11	9.30
6	Lines & Cables	1,143.09	149.27		1,292.36	64.30
7	Vehicles	12.85	1.68		14.53	1.30
8	Furniture	6.16	0.80		6.97	0.42
9	Office equipment	10.40	1.36		11.76	0.70
	Less: Amortization of Assets Created out of Grants					49.25
	TOTAL	1,376.75	179.78	0.00	1,556.53	28.39

Licensee prays before the Honourable Commission to kindly approve the Depreciation as projected for the Control period.

Commission's Analysis

MePDCL has projected Depreciation at Rs. 31.91 Crore, Rs. 30.13 Crore and Rs. 28.39 Crore after adjustment of Amortization grants at Rs. 22.51 crore, Rs. 38.26 Crore and Rs. 49.25 Crore for the Control period.

The Commission had considered in the Business Plan for the Capital Investment plan as detailed in the Table 5.28 annexed in this order page no. 75-77 for the Control period FY 2018-19 to FY 2020-21.

As per the Regulation 33 of MSERC Regulations 2014, the Depreciation shall be computed on the Historical Value of the assets.

Depreciation shall be calculated on straight line method upto 90 % of Asset Value retaining 10 % salvage value.

Consumer contributions or Capital subsidy / grant etc shall be excluded from the Value for the purpose of Depreciation as per the Regulations.

It is observed from the Capital investment Plan and Funding source approved in the Business Plan for the Control Period, about 90% of assets created out of Government Grants and contributions, and 10% of Loan, subject to fulfilment of terms and conditions for borrowing of Loans. The licensee has not filed true up petition for the FY 2016-17 together with audited accounts, and the details of government grants and contributions against the capitalization of assets claimed during the control period are not made available in the petition.

Commission has considered new investment as per the Business Plan submitted by the MePDCL and the GFA has been computed based on the addition of the assets during the control period. The proposed adjustment of amortization grants will be considered at the time of true up of the business, after actual capitalization is reported in the Statement of Accounts.

Commission considering the projected calculations in the petition has computed the depreciation in the absence of details of grants and Contributions and approves 10% of depreciation of the computed calculation excluding land value as detailed in the table 5.36 below:

Table 5.36: Approved Depreciation for the Control period

Particulars	(Rs. Cr)		
	FY 2018-19	FY 2019-20	FY 2020-21
Opening GFA (Excl. Land)	843.31	1199.86	1368.18
Additions during the year (Excl. Land)	356.55	168.33	178.66
Retirements	-	--	-
Closing GFA	1199.86	1368.18	1546.84
Average GFA(Excl. Land)	1029.59	1284.02	1457.51
Average rate of depreciation	4.74 %	4.74 %	4.74 %
Depreciation for the year	48.48	60.89	69.12
10 % Depreciation for Tariff	4.85	6.09	6.91

Commission approves Depreciation at Rs. 4.85 Crore, Rs. 6.09 Crore, Rs. 6.91 Crore for the FY 2018-19, FY 2019-20, FY 2020-21 respectively.

5.10 Interest and Finance Charges**Petitioner's submission**

MePDCL has projected Interest and Finance Charges at Rs. 63.70 Crore, Rs.65.24 Crore, Rs. 61.56 Crore for the Control period FY 2018-19, FY 2019-20, FY 2020-21 respectively as detailed in the table 5.37.

Table 5.37 : Interest and Finance Charges for Control Period 2019-21 Projected

Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Opening Balance	265.72	572.59	553.07	583.37	603.15
Addition During the Year	447.12	36.06	66.43	66.97	19.85
Repayment during the year	140.25	55.58	36.13	47.19	89.16
Closing Balance	572.59	553.07	583.37	603.15	533.85
Average Interest Rate	8.30%	11.28%	11.21%	11.00%	10.83%
Interest Accrued	34.78	63.50	63.70	65.24	61.56
Add: Finance Charge and MeECL Apportioned	7.74				
Interest and Finance Charges	42.52	63.50	63.70	65.24	61.56

The Licensee prayed before the Commission to approve the Interest and Finance charges computed in the above table.

The projected schedule of loans is as detailed in the tables for the control period.

Table 5.38: Details of loans 2018-19 (Projected)

(Rs. Lakhs)							
SL. No.	Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing Balance	Amount of Interest Accrued
1	2	3	4	5	6	7	8
1	REC (Reschedulement)	3252.39	8.00%		585.66	2666.73	236.76
2	REC MTL 5000	416.67	12.75%		416.67	0.00	26.56
3	PFC Loan 32500.00	32500.00	12.15%			32500.00	3948.75
4	PFC (R-APDRP) Pt. A	1019.40	9.00%			1019.40	91.75
5	PFC (R-APDRP) Pt. B	4792.00	9.00%			4792.00	431.28
6	Loan advance by Holding Co.	9784.95	11.75%		2609.32	7175.63	996.43
	Total	51765.41	0.46	0.00	3611.65	48153.76	5731.54
1	State Govt. Loan	3541.63	9.31%	6642.96	1.34	10183.24	638.89
	Grand Total	55307.03	0.55	6642.96	3612.99	58337.00	6370.43

Table 5.39: Details of loans 2019-20 (Projected)

(Rs. Lakhs)							
SL. No.	Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing Balance	Amount of Interest Accrued
1	2	3	4	5	6	7	8
1	REC (Reschedulement)	2666.73	8.00%		632.54	2034.19	188.04
2	PFC Loan 32500.00	32500.00	12.15%		1160.71	31339.29	3878.24
3	PFC (R-APDRP) Pt. A	1019.40	9.00%			1019.40	91.75
4	PFC (R-APDRP) Pt. B	4792.00	9.00%			4792.00	431.28
5	Loan advance by Holding Co.	7175.63	11.75%		2609.32	4566.31	689.84
	Total	48153.76	0.33	0.00	4402.58	43751.19	5279.14
1	State Govt. Loan	10183.24	9.31%	6696.60	316.02	16563.83	1245.08
	Grand Total	58337.00	0.42	6696.60	4718.60	60315.01	6524.21

Table 5.40: Details of loans 2020-21 (Projected)

(Rs. Lakhs)							
SL. No.	Particulars	Opening Balance	Rate of Interest	Addition during the year	Repayment during the year	Closing Balance	Amount of Interest Accrued
1	2	3	4	5	6	7	8
1	REC (Reschedulement)	2034.19	8.00%		683.18	1351.02	135.41
2	PFC Loan 32500.00	31339.29	12.15%		4642.86	26696.43	3525.67
3	PFC (R-APDRP) Pt. A	1019.40	9.00%			1019.40	91.75
4	PFC (R-APDRP) Pt. B	4792.00	9.00%			4792.00	431.28
5	Loan advance by Holding Co.	4566.31	11.75%		2609.32	1956.99	383.24
	Total	43751.19	0.33	0.00	7935.35	35815.83	4567.35
1	State Govt. Loan	16563.83	9.31%	1985.26	980.32	17568.77	1588.87
	Grand Total	60315.01	0.42	1985.26	8915.67	53384.60	6156.22

Commission's Analysis

Commission had considered loans Closing Balance for FY 2017-18 at Rs. 207.48 Crore in the ARR of 1st MYT Control period. The Licensee has not filed true up petition together with audited accounts up to FY 2016-17. In the absence of the audited results, opening balance of Loans could not be considered for computation of Interest and Finance Charges for the 2nd MYT Control period FY 2018-19 to FY 2020-21.

As per the Regulation 32 of MSERC MYT Regulations 2014, Interest and Finance Charges shall be allowed on Capital Loans for determination of ARR and Tariff.

The source wise outstanding opening balance of loan projected for FY 2018-19 has been considered for ongoing Schemes under R-APDRP-A, R-APDRP-B and rescheduled REC loans for Distribution works. The Commission considers that 90% of Capital Investment approved in the Business Plan is pooled from Capital grants from Government of India and Government of Meghalaya. Only 10 % loans are proposed to be borrowed by the Licensee.

- a) The REC MTL I for Rs. 4.17 Crores and REC MTL II Loan at Rs. 325.00 Crore projected for FY 2018-19 to FY 2020-21 as against approved loan of Rs. 185.77 Cr for new investment are not considered as the Licensee has not furnished the purpose of loan drawal.
- b) Similarly the loan advance by Holding Company and State Government Loan not considered, as the licensee has not furnished the purpose of loan drawal.

Table 5.41: Schedule of Loans considered for FY 2018-19

(Rs. Cr)

Sl. No	Source of Loans	Opening Balance Loan	Additions during the year	Repayment during the year	Closing Loan	Interest
1	8% REC Rescheduled	32.52	-	5.86	26.66	2.37
2	9 % PFC RAPDRP-A	10.19	-	-	10.19	0.92
3	9 % PFC RAPDRP-B	47.92	-	-	47.92	4.31
4	Total	90.63		5.86	84.77	7.60

Table 5.42: Schedule of Loans considered for FY 2019-20

(Rs.Cr)

Sl. No	Source of Loans	Opening Balance Loan	Additions during the year	Repayment during the year	Closing Loan	Interest
1	8% REC Rescheduled	26.66	-	6.33	20.33	1.88
2	9 % PFC RAPDRP-A	10.19	-	-	10.19	0.92
3	9 % PFC RAPDRP-B	47.92	-	-	47.92	4.31
4	Total	84.77		6.33	78.44	7.11

Table 5.43: Schedule of Loans considered for FY 2020-21

(Rs.Cr)						
Sl. No	Source of Loans	Opening Balance Loan	Additions during the year	Repayment during the year	Closing Loan	Interest
1	8% REC Rescheduled	20.33	-	6.83	13.50	1.35
2	9 % PFC RAPDRP-A	10.19	-	-	10.19	0.92
3	9 % PFC RAPDRP-B	47.92	-	-	47.92	4.31
4	Total	78.44		6.83	71.61	6.58

Table 5.44: Approved Interest and Finance Charges for the Control Period.

(Rs. Cr)			
Particulars	FY 2018-19	FY 2019-20	FY 2020-21
As projected by MePDCL	63.70	65.24	61.56
Approved by MSERC	7.60	7.11	6.58

5.11 Interest on working capital

Petitioner's Submission

MePDCL has projected Interest on Working Capital at Rs. 43.14 Crore, Rs. 43.28 Crore Rs. 44.51 Crore for the Control period FY 2018-19, FY 2019-20, FY 2020-21 as detailed in the Table 5.45.

Table 5.45: Interest on working capital for Control Period 2019-21 Projected

(Rs.Cr)					
Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
O&M for 1 Months	13.07	13.72	14.38	15.17	15.94
Maintenance Spares	3.56	6.05	10.28	12.92	14.67
Receivables for 2 Months	194.74	216.85	282.38	279.97	286.20
Total (INR Crore)	211.37	236.62	307.04	308.06	316.80
Interest Rate (%)	14.75%	14.05%	14.05%	14.05%	14.05%
Interest on Working Capital (INR Crore)	31.18	33.25	43.14	43.28	44.51

The Licensee prays before the Commission to approve the Interest on Working Capital as computed above.

Commission's Analysis

As per the Regulations 34(iii) of MSERC, Regulation 2014 Interest on Working Capital shall be allowed on the following components of ARR.

1. *One month O & M Expenses*
2. *Maintenance spares at 1% escalated at 6 % on the Historical cost of GFA.*
3. *Receivables of two (2) months of expected Revenue from Prevailing tariffs.*

Commission considers the following computation for Interest on working Capital.

Table 5.46: Approved Interest on Working Capital

(Rs. Cr)				
Sl. No	Particulars	FY 2018-19	FY 2019-20	FY 2020-21
1	O & M Expenses for one(1) month	11.83	12.30	12.71
2	Maintenance spares at 1 % of GFA escalated at 6 % on Historical Cost of GFA	8.94	12.72	14.50
3	Receivable for two (2) months of expected Revenue as per the prevailing tariff	110.76	110.76	110.76
4	Total Requirement of Working Capital	131.53	135.78	137.97
5	Interest on Working Capital at 14.05 %	18.48	19.08	19.38

Table 5.47: Approved Interest on Working Capital for the Control period

(Rs. Cr)			
Particulars	FY 2018-19	FY 2019-20	FY 2020-21
As projected by MePDCL	43.14	43.28	44.51
Approved by MSERC	18.48	19.08	19.38

5.12 Return on Equity

Petitioner's Submission

MePDCL has submitted that the Return on Equity has been computed for each year of the control period as per the average equity appearing in the balance sheet of MePDCL for FY 2016-17 & projections as per the approved Business Plan in the control period.

MePDCL has projected Return on Equity at Rs.113.54 Crore each year of the Control Period FY 2018-19 to FY 2020-21 as detailed in the table 5.48.

Table 5.48: Return on Equity for control period FY 2018-19 to FY 2020-21 Projected

(Rs.Cr)						
Sl. No	Particulars	FY2016-17(Actual)	FY 2017-18 (Estimated)	FY 2019-20(Projected)	FY 2019-20(Projected)	FY 2020-21(Projected)
1	Opening Equity Base	810.42	811.02	811.02	811.02	811.02
2	Addition Equity	811.62				

Sl. No	Particulars	FY2016-17(Actual)	FY 2017-18 (Estimated)	FY 2019-20(Projected)	FY 2019-20(Projected)	FY 2020-21(Projected)
3	Closing equity Base	811.02	811.02	811.02	811.02	811.02
4	Average Equity Base	811.02	811.02	811.02	811.02	811.02
5	RoE(%)	14 %	14 %	14 %	14 %	14 %
6	Return on Equity(Rs. Cr)	113.54	113.54	113.54	113.54	113.54

MePDCL prays before the Commission to kindly approve the ROE for the control period as per above computations.

Commission's Analysis

The Licensee has computed Return on Equity assuming opening and closing Equity at Rs. 811.02 Crore during the Control period FY 2018-19 to FY 2020-21.

Commission had considered the closing Equity of the MePDCL at Rs. 98.70 Crore for FY 2014-15 in the review orders dated 27.03.2017. The Licensee has not filed True-up petition from FY 2014-15 to FY 2016-17 together with audited accounts (C&AG).

Commission has considered new investment as per the approved Business Plan and the GFA has been arrived based on the addition of the assets during the Control period. Commission considers that Equity base has been computed as per Regulations 27 and 31 of MSERC Regulations 2014.

The following is the status of the GFA and Equity for the Control period FY 2018-19 to FY 2020-21.

(Rs.Cr)			
Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Opening GFA	843.31	1199.86	1368.18
Additions during the year	356.55	168.33	178.66
Closing GFA	1199.86	1368.18	1564.84
Average GFA	1029.59	1284.02	1457.51

Computation of Equity for the Control Period FY 2018-19 to FY 2020-21 is as per the Regulation 27.

(Rs. Cr)			
Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Opening Equity	252.99	359.96	410.46
Additions during the year	106.97	50.50	53.60
Closing Equity	359.96	410.46	464.06
Average Equity	306.47	385.21	437.26

“As per Regulation 27 read with 28.10 of MSERC MYT Regulations of 2014 the grants and contributions received for execution of the projects shall be excluded from the capital cost for computation of debt equity ratio”. The Govt. grants and contributions during the control period as approved in the Business Plan are at Rs.324.05 Cr., Rs.147.72 Cr & Rs.126.05 Crores for FY 2018-19, FY 2019-20 & FY 2020-21 respectively. The Government grants as on 31.03.2017 available to Discom are Rs. 81.28 Cr as per the provisional account for the FY 2016-17.

Accordingly the debt equity ratio has been computed to calculate the return on equity by deducting the grants and contributions for the control period.

Table 5.49: Computation of Return on Equity for the control period

(Rs. Cr)			
Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Average GFA	1029.59	1284.02	1457.51
Less: Grants & Contributions	405.33	553.05	679.10
Net GFA	624.26	730.97	778.41
Debt 70%	436.98	511.68	544.89
Equity 30%	187.28	219.29	233.52
Return on equity at 14%	26.22	30.70	32.69

Table 5.50: Approved RoE for Control period as detailed in the table below.

(Rs. Cr)			
Particulars	FY2018-19	FY2019-20	FY2020-21
RoE projected by MePDCL	113.54	113.54	113.54
Approved by MSERC	26.22	30.70	32.69

5.13 Non-Tariff Income

Petitioner's Submission

MePDCL has submitted that Non-Tariff Income shall be received towards Interest Income. Rentals, Fees and penalties, Sale of scrap, tender forms, Miscellaneous

Receipts, other Income, Meter rent, Margin Money from Customers, and Miscellaneous Charges from customers, Estimated non-Tariff income inclusive of MeECL, MePGCL & MePTCL non-Tariff income at Rs. 119.91 Crore, Rs. 125.91 Crore, Rs. 132.20 Crore during the Control Period FY 2018-19, FY 2019-20, FY 2020-21 respectively as detailed in the table 5.51.

Table 5.51: Non-Tariff Income for Control Period FY 2018-2021 Projected

Particular	FY 2016-17 (Actual)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Interest Income:	10.45	10.97	11.52	12.10	12.70
Other non-operating income:		0.00	0.00	0.00	0.00
Rental and Hiring Income	0.10	0.10	0.11	0.11	0.12
Discount Received	0.00	0.00	0.00	0.00	0.00
Fees and Penalties	0.03	0.04	0.04	0.04	0.04
Sale of scrap, tender forms and others	0.20	0.21	0.22	0.23	0.24
Miscellaneous receipts	0.23	0.24	0.25	0.27	0.28
Interest on Adv/Discount Received etc		0.00	0.00	0.00	0.00
Other Income	9.37	9.84	10.33	10.85	11.39
Meter Rent	2.90	3.04	3.19	3.35	3.52
Margin Money from customers & Miscellaneous charges	35.60	37.38	39.25	41.21	43.27
Adjustment of MEPGCL & MePTCL	41.03	43.08	45.23	47.49	49.87
Misc. Charges from consumers	4.89	5.13	5.39	5.66	5.94
Bad Debt	13.93				
MeECL Apportioned	3.98	4.18	4.38	4.60	4.83
Total	122.69	114.20	119.91	125.91	132.20

MePDCL prays before Commission to kindly approve the non-Tariff income for the control period.

Commission's Analysis

The Licensee has not projected any Theft and pilferage charges, and Delayed Payment Surcharge Wheeling charges etc in the Non-Tariff Income for the Control period.

Commission however approves the Non- Tariff Income as submitted by the Licensee for the Control Period at Rs. 119.91 Crore, Rs. 125.91 Crore and Rs. 132.20 Crore for FY 2018-19, FY 2019-20 and FY 2020-21 respectively.

5.14 Rural Electrification subsidy

Petitioner's submission

MePDCL has submitted that State Government has provided RE subsidy of Rs. 20.50 Crore in FY 2016-17. It is stated that the Government has not issued any assurance of providing Rural Electrification subsidy and Revenue subsidy etc.

Commission's Analysis

The Licensee shall pursue with the Government considering the huge amount of revenue gap between the average cost of supply and revenue realized from Kutir Jyoti consumers and other short fall in the Revenue receipts.

Commission noted the submission of the Licensee, and considers the Rural Electrification subsidy at the level of FY 2015-16, for control period at Rs. 21.00 Crore each year provisionally.

5.15 Revenue from sale of surplus power

Petitioner's submission

MePDCL has submitted that the Income from sale of surplus power for 652.45 MU received at Rs. 106.11 Crore for the FY 2015-16. The Licensee has estimated the Revenue from Sale of surplus power during the Control period at Rs. 441.07 Crore,

Rs. 449.73 Crore, Rs.443.56 Crore for FY 2018-19, FY 2019-20, FY 2020-21 as detailed in the table 5.52.

Licensee has submitted that this surplus power is expected to be available only during the rainy season; and that MePDCL has to depend upon short term market for sale of this surplus power. Over last 3 to 5 years, it is observed that there are huge fluctuations in the short term market rates especially during the rainy season. Therefore it is extremely difficult to project a realistic per unit rate of power.

Table 5.52: Revenue from Sale of Surplus Power for Control Period 2019-21 Projected

Particulars	FY2016-17 (Provisional)	FY2017-18 (Estimated)	FY2018-19 (Projected)	FY2019-20 (Projected)	FY2020-21 (Projected)
Approved Sale of Surplus Power (MU)	524.73	1434.39	1764.26	1798.94	1774.23
Revenue from Sale of Surplus Power (In Rs. Crore)	131.18	358.60	441.07	449.73	443.56

MePDCL submits before Commission to kindly approve the above as revenue from sale of surplus power to be deducted from the gross ARR.

Commission's Analysis

Commission had considered the cost of surplus energy at Rs.3/kWh for FY 2015-16 and Rs.3.25ps./kWh for FY 2016-17 & FY 2017-18. Commission would like to clarify that the additional revenue from sale of surplus power is just indicative figure and directs the licensee to ensure efficient management of sale and drawal so that the revenue from sale of surplus power should not be less than the approved rate.

Table 5.53: Approved Revenue from sale of surplus power

(Rs.Cr)

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Surplus Energy (MU)	1788.39	1823.07	1799.29
Grossed Up with 4% (MU)	1862.91	1899.03	1874.26
Revenue for sale of surplus power@Rs.3/kWh (Rs. Crores.)	558.87	569.71	562.28

Commission approves the revenue from sale of surplus power at Rs.558.87 Crore, Rs. 569.71 Crores. Rs.562.28 Crore provisionally for the control period.

Commission after detailed analysis of the projections made by the licensee, considering the additional information/ data submitted by the licensee, and the approved business plan for the control period has computed the ARR for MYT control period FY 2018-19 to FY 2020-21. The ARR has been compiled in the absence of audited results of previous years as depicted in the table 5.54.

Table 5.54: ARR for the 2nd MYT Control period FY 2018-19 to FY 2020-21

Particulars	Projected by MePDCL			Approved by MSERC		
	FY 2018-19	FY 2019-20	FY 2020-21	FY 2018-19	FY 2019-20	FY 2020-21
Power Purchase cost	1456.82	1310.55	1296.09	1017.42	1017.79	981.25
Transmission Charges (PGCIL)	198.73	204.7	210.94	194.00	199.82	205.91
Transmission Charges (MePTCL)	210.61	306.4	347.22	66.86	98.64	143.13
Employee Expenses	149.95	158.3	166.33	128.08	133.03	137.24
Repair & Maintenance Expenses	11.15	11.7	12.29	4.31	4.52	4.75
Administration & General Expenses	11.46	12.04	12.64	9.57	10.05	10.55
Depreciation	31.91	30.13	28.39	4.85	6.09	6.91
Interest and Finance charges	63.7	65.24	61.56	7.60	7.11	6.58
Interest on working capital	43.14	43.28	44.51	18.48	19.08	19.38
Return on Equity	113.54	113.54	113.54	26.22	30.70	32.69
Gross Annual Revenue Requirement (ARR)	2291.01	2255.88	2293.51	1477.39	1526.83	1548.39
Less: Non-Tariff Income	119.91	125.91	132.2	119.91	125.91	132.2
Less: R.E. Subsidy	20.50	20.50	20.50	21	21	21
Less: Subsidy against Power Purchase	-	-	-	-	-	-
Less: R.E. Subsidy Against Loss on Account of Flood, Fire Cyclone Etc	-	-	-	-	-	-
Less: Revenue Grant for Other Expenditure	-	-	-	-	-	-
Less: Sale of Surplus Power	441.07	449.73	443.56	558.87	569.71	562.28
Net ARR	1730.04	1680.24	1717.75	777.61	810.21	832.91

5.16 Determination of Retail Tariff for FY 2018-19**5.16.1 Revenue Gap at the existing Tariff rates****Petitioner's Submission**

Petitioner has submitted a revenue gap of Rs. 1072.03 Crores for FY 2018-19 in the table 5.55

Table 5.55: Revenue Gap Projected for FY 2018-19

(Rs. Cr)

Sl. No.	Particulars	Revenue required
1	Net Revenue Requirement for FY 2018-19	1730.04
2	Less : Projected Revenue at existing Tariff rates	658.01
3	Projected Revenue gap for FY 2018-19	1072.03

Licensee has furnished the expected revenue from existing Tariffs for FY 2018-19 in the table 5.56:

Table 5.56: Expected Revenue from Existing Tariffs Projected for FY 2018-19

Sl. No	Category	Connected Load(MVA)	Energy (MU)	Total Revenue (Rs. Cr.)	Avg. Rate (Rs. Unit)
	LT Category				
1	Kutir jyoti	6.73	28.95	10.04	3.47
2	Domestic	386.84	407.12	216.02	5.31
3	Commercial	69.26	64.58	50.51	7.82
4	Industrial LT	0.28	5.06	3.89	7.69
5	Public Lighting	13.28	1.02	0.69	6.81
6	Water supply	1.01	12.15	8.76	7.21
7	General Purpose	12.33	25.48	17.83	7.00
8	Agriculture	27.38	0.10	0.04	4.39
9	Crematorium	0.14	0.21	0.09	4.38
	HT Category				
10	Domestic (HT)	18.37	20.57	15.79	7.67
11	Commercial (HT)	23.55	28.52	22.61	7.93
12	Industrial (HT)	96.13	141.65	107.65	7.60
13	Public water supply	7.79	24.07	17.55	7.29
14	General Purpose / Bulk Supply	44.88	82.50	63.92	7.75
	EHT Category				
15	Industrial EHT	68.70	173.64	122.60	7.06
16	Assam				
	Total	776.66	1015.62	658.01	6.48

Commission's Analysis

Commission had approved Tariff's for FY 2017-18 on 31.03.2017 to recover revenue of Rs.773.00 Crores for 1173MU energy sales. The average realization worked out to Rs.6.59/KWh, whereas the licensee has assessed revenue at existing Tariffs for 1015.62MU at Rs.658.01 Crores for FY 2018-19 in the above table at an average realization Rs.6.48/kWh as against Rs.6.59/kWh. The above variation is a result of understatement of connected load at 776.66MVA as against 837.68MVA projected for business plan and approved by the Commission.

The Commission has computed the revenue considering the approved connected load at 837.68MVA and assessed expected revenue from existing tariffs for FY 2018-19 in the table 5.57

Table 5.57: Expected Revenue from Existing Tariffs for FY 2018-19

Sl. No	Category	Connected Load(MVA)	Energy (MU)	Total Revenue (Rs. Cr.)	Avg. Rate (Rs. Unit)
	LT Category				
1	Kutir jyoti	39.8	28.95	9.39	3.24
2	Domestic	420.74	407.12	214.47	5.27
3	Commercial	77.04	64.58	52.94	8.20
4	Industrial LT	12.35	5.06	4.17	8.24
5	Public Lighting	0.39	1.02	0.68	6.71
6	Water supply	7.28	12.15	8.44	6.95
7	General Purpose	14.29	25.48	17.60	6.91
8	Agriculture	0.28	0.10	0.05	4.56
9	Crematorium	0.14	0.21	0.09	4.10
	HT Category				
10	Domestic (HT)	19.71	20.57	16.39	7.97
11	Commercial (HT)	28.14	28.52	24.07	8.44
12	Industrial (HT)	96.13	141.65	117.44	8.29
13	Public water supply	7.79	24.07	17.82	7.4
14	General Purpose / Bulk Supply	44.88	82.50	59.73	7.24
	EHT Category				
15	Industrial EHT	68.7	173.64	121.29	6.98
16	Assam				
	Total	837.66	1015.62	664.56	6.54

Commission considering the connected load as approved in the business plan for the FY 2018-19 has computed the revenue at existing Tariff's for Rs.664.56 Crores for 1015.62MU energy sales and arrived at revenue gap for FY 2018-19 below.

Table 5.58: Approved revenue gap for FY 2018-19

(Rs. Cr)		
Sl. No	Particulars	ARR Revenue required
1	Net Annual Revenue Requirement for FY 2018-19	777.61
2	Less : Revenue at existing Tariff rates	664.56
3	Revenue gap for FY 2018-19	113..05

5.16.2 Determination of Retail supply Tariff Rates for FY 2018-19

Petitioner's Submission

Licensee has submitted that existing Tariff rates need to be enhanced by more than 160% in order to meet the projected revenue gap of Rs.1072.03 Crores.

MePDCL has submitted that a 30% of tariff hike may be considered to avoid Tariff shock to consumers and remaining amount may be treated as regulatory asset to be liquidated over the future years. The amount of regulatory asset may be changed based on the subsidy commitment provided by the state government.

Table 5.59: Revenue gap with 30% Tariff hike is estimated as projected:

(Rs.Cr)	
Particulars	Amount
Total Revenue Requirement in FY 2018-19	1730.04
Less: Projected Revenue with 30% Tariff Hike	855.41
Projected Revenue Gap for FY 2018-19	874.62

Commission's Analysis

Based on the approved ARR for FY 2018-19 at Rs. 1477.39 Crores the net ARR is arrived at Rs.777.61 Crores after adjusting the non-Tariff income, anticipated RE subsidy, and revenue from sale of surplus energy and revenue gap is approved in the table 5.60:

Table 5.60: Approved revenue gap for FY 2018-19

(Rs. Cr)	
Particulars	Amount
Net ARR for FY 2018-19	777.61
Less: Expected Revenue at existing Tariffs from 1015.62 MU Energy sales	664.56
Approved Revenue Gap for FY 2018-19	113.05

The Tariff orders are finalised in the absence of audited results upto FY 2016-17, Commission considers Tariff hike for FY 2018-19 at 3.37% over the FY 2017-18, which will cover the gap to certain extent.

The Revenue Gap at Rs. 113.05 Crores arrived at is on provisional basis and final gap shall be known only after audited performance is filed with the true up petition.

The Licensee shall improve the performance in the areas of energy sales of subsidised category of consumers, efficiency in the billing rate, 100% metering of consumer connections and improved collection efficiency in order to make good the approved revenue gap to certain extent.

The licensee shall pursue with the State Government for sanction of revenue subsidy in lieu of the subsidized Tariff being extended to the Kutir Jyoti category consumers as the difference between the cost of supply and the Tariff actually being charged.

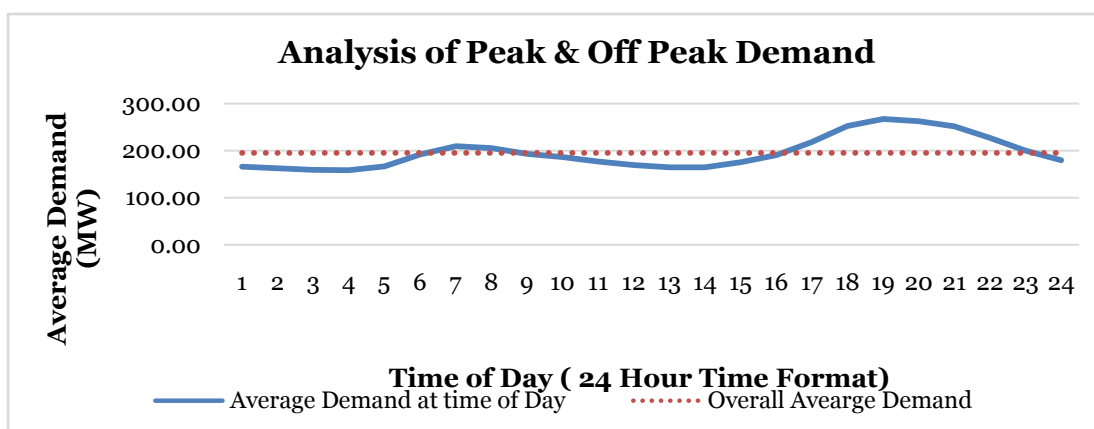
The licensee shall exercise efficient management for procurement of power in merit order priority and ensure surrender of high cost power available from CGS and NEEPCO power plants wherever possible.

5.17 Time of Day Tariff

Petitioner's submission

The licensee has proposed time of day Tariff for the HT industrial & EHT Industrial consumers initially. The licensee has studied the requirement of Time of Day Tariff and the ToD Tariff prevalent in other states.

Based on the hourly data obtained from SLDC the average daily load curve profile for FY 2016-17 for the state has been plotted as under:



It may be observed from the above graph that there is a distinct peak duration from 1700 hours to 2300 hours followed by an off-peak duration from 2300 hours to 0600 hours. In order to meet the peak demand, MePDCL has to resort to short term power purchase resulting in higher costs whereas during off-peak hours, MePDCL has to sell power outside the state. As such, in order to optimise the power purchase cost, the load curve needs to be flattened and peak load needs to be shifted to off-peak hours. As such, the TOD time has been proposed to incentivize consumers to shift the load from peak to off-peak hours. It has also been observed that the TOD time slabs and the incremental rates are similar across various states like Assam, West Bengal etc. Since the consumer mix, power purchase mix, time zone and tariff rates in Meghalaya are similar to that of Assam, the following Time of Day (TOD) tariff is proposed in addition to the base tariff applicable for HT and EHT Industrial consumers.

Table 5.61: Peak and Off Peak Energy Charges for Time of day Tariff

Time Slot	Energy Charges (Rs./kWh)
0600-1700 hrs (normal)	0.00
1700-2300 hrs (peak)	(+) 1.50
2300-0600 hrs (night off-peak)	(-) 0.50

The licensee requests the Commission to accept the above Time of Day proposal to ensure economical utilization of electricity

Based on the analysis of peak and off-peak demand which was obtained from SLDC and submitted to the Commission by the licensee for FY 2016-17 relating to HT Industrial and EHT Industrial consumers an average daily load curve was drawn and the profile indicates that the peak duration is from 1700 hrs to 2300 hrs and off-peak duration from 2300 hrs to 0600 hrs. Normal duration is from 0600 hrs to 1700 hrs.

ToD tariff accordingly approved by the Commission as shown in the table below:

Time of Day	Peak/off-peak	Energy Charges (Rs./kVAh)
0600-1700 hrs	Normal	As applicable
1700-2300 hrs	Peak	(+)20% of normal tariff
2300-0600 hrs	Off-Peak	(-)20% of normal tariff

The above tariff will be applicable to both HT industrial and EHT industrial categories of consumers subject to the condition that proper metering with tri-vector meters is done. Licensee will also furnish the details of consumers under these categories with the contracted demand as per the agreement executed between them to the Commission by 30th June 2018.

5.18 kVAh Tariff for LT Industrial Consumers, HT Domestic and Bulk Supply

MePDCL has submitted that at present, kVAh tariff is applicable for HT/EHT Industrial consumers, HT Commercial and HT Public Water Supply consumers. In order to improve the power factor, MePDCL proposes to extend the kVAh tariff for LT Industrial Consumers as well as other HT categories namely HT Domestic and Bulk Supply. As such, all EHT & HT consumers along with LT industrial consumers and LT water works would be covered under KVAh tariff which would enable MePDCL to regulate the overall system power factor to desired levels.

Commission directs the licensee to furnish a detailed list of consumers with contracted load etc. to the Commission for examination of proposed kVAh billing together with the financial implications to the licensee and also to each category of consumers.

5.19 Rebates for Captive Consumers**Petitioner's Submission**

The Licensee has submitted that the ratio of HT vs. LT sales of MePDCL is decreasing owing to reduced consumption from industrial consumers in the state and increased electrification LT level. The reduction in HT:LT ratio of sales is adversely affecting the performance of the licensee in terms of reduction in average rate of revenue per unit and increase in overall T&D losses. As such, there is a need to incentivize for increase in consumption of HT/EHT industrial consumers from the licensee.

The licensee has sought for approval to provide a rebate of 10% in energy charges for HT / EHT industrial consumers who have captive generation and consume energy over and above the sanctioned capacity / level of captive energy.

Commission's Analysis

The Rebate in energy charges is proposed to be applicable for existing HT & EHT industrial consumers who have been meeting their demand either partially or fully through their captive power plants during the previous financial year.

If the proposal is agreed to, consumers would be required to file application with the licensee for the rebate in energy charges indicating that they would be availing supply from the distribution licensee by switching consumption from their existing captive power plant, either by becoming a new consumer of the licensee or by reducing the share of energy drawn from captive power plant. The petition indicates that the rebate in energy charges shall be allowed to those consumers on the incremental energy consumed from the distribution licensee. The Commission notes that though the licensee has stated that energy sales in Meghalaya State is declining and projected a reduced level of energy sales, more specifically from HT / EHT industrial consumers during the MYT control period.

The licensee has not furnished specific reasons for declining trend in the energy sales. In the absence of supporting details, the Commission does not consider the

MePDCL proposal of incentive scheme in respect of captive consumers at the present juncture.

6 Tariff Principles and Design

6.1 Background

The Commission while determining the Revenue Requirement and retail tariff for MePDCL for FY 2018-19, 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 on 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 and to the licensee itself.

6.2 Tariff proposed by MePDCL and approved by the Commission

Petitioner's Submission

MePDCL in its tariff petition for FY 2018-19 has proposed increase of 30% 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:

Table 6.1: Category wise Tariffs existing and proposed for FY 2018-19

Sl. No	Category	Existing Tariff		Proposed Tariff	
		Fixed Charges (Rs./kW/month)	Energy Charges (Rs./kWh)	Fixed Charges (Rs./kW/month)	Energy Charges (Rs./kWh)
1	Kutir Jyoti				
A	Unmetered (per connection)	130		170	
B	Metered		2.80		3.65
2	Domestic	50		65	
A	First 100 Units		3.30		4.30
B	Next 100 Units		3.90		5.05
C	Above 200 Units		5.30		6.90
3	Commercial (CLT)	110		150	
A	First 100 Units		5.50		7.15
B	Above 100 Units		7.00		9.10
4	Industrial (ILT)	110	5.60	150	6.60
5	Public Lighting (PL)	110	6.30	150	8.20
6	Fixed charges for Public Lighting (Unmetered)				
7	Types of Lamps				
A	Incandescent lamp				
I	40W	180		235	
II	60 W				
III	100 W				
B	Fluorescent Lamp				
I	Up to 40 W				
C	Mercury Vapor Lamp				
I	80 W	300		390	
II	125 W	400		520	
III	250 W	800		1040	
IV	500 W	1500		1950	
D	Sodium Vapor Lamp				
I	up to 150 W	700		910	
II	Above 250 W	900		1170	
III	400 W	1400		1820	
E	CFL Fittings				
I	Up to 45 W	200		260	
II	Above 45 W up to 85 W	300		390	
F	LED Fittings	500		650	
G	Metal Halide	700		910	
8	Public Water Supply/sewage treatment plant (WSLT)	110	6.30	150	7.40
9	General Purpose (GP)	110	6.30	150	8.20
10	Agriculture (AP)	100	2.75	130	3.60
11	Crematorium (Rs./Connection/Month)	6500	3.75	8450	4.90
	High Tension				
12	Domestic (DHT)	200	6.00	260	7.00
13	General Purpose/Bulk Supply (BS)	200	6.00	260	7.00
14	Commercial (CHT)	200	6.50	260	8.45
15	Industrial (IHT)	200	6.50	260	8.45

Sl. No	Category	Existing Tariff		Proposed Tariff	
		Fixed Charges (Rs./kW/month)	Energy Charges (Rs./kWh)	Fixed Charges (Rs./kW/month)	Energy Charges (Rs./kWh)
16	Public Water Supply (WSHT)	200	6.00	260	7.80
	Extra High Tension				
17	Industrial EHT	200	6.00	260	7.80

Commission's Analysis

The Commission does not agree with the proposal of the Licensee to increase 30% Tariff over the existing Tariff as this goes counter to the NTP and to the Regulations of the Commission.

Commission had in the tariff order FY 2016-17 issued directive no.14 that all the Street light fittings and fixtures shall be replaced with LED fittings and lamps. MePDCL was directed to implement energy conservation as part of DSM in consultation with M/s EESL who were engaged for the purpose. Commission considers that proposed tariff schedule for incandescent lamps, fluorescent lamps, Mercury vapour lamps, Sodium vapour lamps, metal halide & CFL fittings cannot be entertained any further and that all these categories shall be replaced immediately with LED fittings. Accordingly Tariff schedule for public lighting has been limited to LED fittings. However MePDCL shall bill the existing fixtures at the prevailing rates till the fittings and fixtures are replaced with LED fittings which is to be completed by 31/12/2018 at the latest. The approved Tariffs for supply of energy in respect of different categories of consumers for FY 2018-19 are given in the Table 6.2:

Table 6.2 Category wise tariff approved for FY 2018-19

Sl. No.	Category	Approved	
		Fixed Charges (Rs./Conn/kW)	Energy Charges (Rs./kWh)
	Low Tension		
1	Kutir Jyoti		
	Unmetered	170	-
	Metered	-	3.65
2	Domestic	-	-
	First 100 Units	50	3.70
	Next 100 Units	50	4.20
	Above 200 Units	50	5.70
3	Commercial		
	First 100 Units	110	6.10
	Above 100 Units	110	7.30
4	LT Industrial	110	6.00
5	Public Lighting (Metered)	110	6.50
6	LED fittings and Lamps	50	4.25
7	Public Water Supply	110	6.70
8	General Purpose	110	6.90
9	Agriculture	100	3.00
10	Crematorium	6500	4.10
	High Tension		
11	Domestic HT (DHT)	200	6.20
		Rs./kVA/month	Rs./kVAh
12	General Purpose / Bulk Supply (BS)	200	6.20
13	Commercial HT (CHT)	200	6.60
14	Industrial HT (IHT)	200	6.60
15	Public Water Supply (WS)	200	6.50
	Extra High Tension		
16	Industrial EHT	200	6.20

7. Fuel & Power Purchase Price Adjustment (FPPPA) Formula

7.1 Proposed Formula and Recovery Mechanism for FPPPA

7.2 Petitioner's Submission

MePDCL proposed the formula to be applicable for control period of a quarter, with appropriate adjustment in each quarter, based on the past quarter (or the quarter before that, as the case may be) to be applicable, rather than as an advance. In doing so, there is clearly a cost of carrying these additional liabilities and therefore, the formula would also provide an interest cost at the working capital rate of interest for such recovery or reimbursement as the case may be.

The formula is proposed to be applied at the end of each quarter by MePDCL with post facto approval of the Hon'ble Commission.

The formula, incorporating above features, for Fuel and Power Purchase Price Adjustment (FPPPA), is proposed as under:

$$FPPPA = P + Z + A + I$$

Where,

P	Adjustment on account of variation in the power purchase cost from other entities, including Central Sector Stations, Independent Power Producers, Captive Power Plants, Bilateral, Power Exchange, etc, as determined by the Hon'ble Commission from time to time.
Z	Any other unpredictable and unforeseen cost, not envisaged at the time of tariff fixation. These costs could be variation in Water charges/ Tax structure/Electricity Duty/Cess & Other Levies or Supplementary Bills that may be raised by various generating stations/CTU.
A	Adjustment on account of unadjusted amount, if any, from the previous Control Period

- I Interest burden on MePDCL due to additional Working Capital requirement corresponding to delayed recovery

Each component of the formula mentioned above are explained in detail as below:

Adjustment Formula for change in cost of Power Purchases (P)

The adjustment on account of variations in the power purchase costs from other sources will be calculated in the following manner:

$$P = \sum_{m=1}^k (FC_A - FC_B) + \sum_{m=1}^k \{(VC_A - VC_B) \times Q_A\}$$

Where

m	Generating Stations 1 to k
FC_A	Actual fixed cost paid to the generators in INR Crore
FC_B	Base fixed costs to the generators in INR Crore as per applicable / prevailing order of the MSERC
VC_A	Actual variable cost per unit of delivered energy in Rs./KWh, computed based on the principles laid down in the power purchase arrangements or tariff order of appropriate regulator
VC_B	Base variable cost per unit of delivered energy from each station in Rs. / KWh as per applicable/prevaling order of the MSERC
Q_A	Actual quantum of power purchases from each source in Million Units (MUs).

Adjustment on account of any unforeseen / unpredictable cost (Z)

This component of the proposed formula is intended to compensate any unforeseen or unpredictable expenses, not envisaged at the time of tariff fixation. An indicative list of such costs would be variation in water charges / tax structure / Electricity Duty / Cess & other levies and also any supplementary bills that may be raised by the generating stations or the CTU.

Furthermore, the Honourable Appellate Tribunal of Electricity (APTEL), in its judgement dated 6th October 2016 on Appeal No. 97 of 2015 in the matter of FPPPA has directed the Commission to duly consider the Supplementary Bills raised by various generation stations. The relevant section of the judgement is reproduced hereunder:

“...We are of the opinion that these charges relate to past period arrears in the Supplementary Bills are uncontrollable cost and these need to be considered suitably by the State Commission as per the Tariff Regulations 2011. As put up by the Appellant that the frequency of such Supplementary bills is not fixed and they may pertain to higher time period too, while deciding the impact of Supplementary bills, the State Commission needs to take due care of impact in consumer tariff too.”

These charges would be considered as per the actuals.

Adjustment Formula for unadjusted amounts (A)

It may be noted that for a particular control period (quarter), the FPPPA amount per unit applicable is calculated based on the actual FPPPA amount for the previous control period (quarter). However, it is likely that the total amount of FPPPA billed in the present control period (quarter) is more or less than the actual amount of FPPPA for the previous control period (quarter). Hence the over/under recovery of FPPPA in the present control period (quarter) needs to be adjusted while calculating FPPPA in the next control period (quarter).

The adjustment on account of unadjusted amount from previous period shall be calculated in the following manner:

$$A = FPPPA_B - FPPPA_A$$

Where

FPPPA_A	Amount actually recovered in INR Crore in previous control period (quarter)
FPPPA_B	Amount approved for pass through in INR Crore in previous control period (quarter)

7.3 Adjustment Formula for working capital interest (I)

MePDCL has submitted that while determining the Tariff for a particular year, the Honourable Commission approves the Power Purchase cost and working capital requirements in the ARR based on the projections for the ensuing year. However, during the year, when the Power Purchase cost exceeds the approved Power Purchase cost, MePDCL has to avoid short term loans to make payments for such

additional Power Purchase costs in time to avoid the consequential delayed payment surcharge. In such cases, MePDCL needs to pay increased Power Purchase cost. In case of a quarterly FPPPA recovery mechanism, the likely time delay between incurring of the expense and receipt of the FPPPA amount for making payments to generators would be three months.

It is proposed to calculate the interest liability according to the following formula:

$$I = \frac{UA \times r \times T}{12}$$

Where,

UA The adjustment on account of fuel and power purchase price of previous Control Period (P), any other unpredictable and unforeseen cost (Z) and under or over recovery carried forward from previous control period (A) in INR Crore i.e.

$$UA = P + Z + A$$

Where, P, Z & A is as defined earlier

R Average rate per annum of short term borrowing for MePDCL for preceding Control Period (in percent per annum).

T Time difference between the date of recovery of adjustments from the consumers and the date on which the adjustments are measurable (months). Under normal circumstances, this difference would be three months.

The FPPPA is proposed to be recovered in the form of an incremental energy charge (Rs/kWh) in proportion to the energy consumption and form a part of the energy bill to be served by MePDCL to all its consumers based on the following formula:

$$FPPPA_{PU} = \frac{FPPPA}{SE}$$

Where,

$FPPPA_{PU}$	Fuel & Power Purchase Price Adjustment per unit in Rs. per kWh
SE	Energy sold in the previous 'Control Period' in Million Units for the Category (The Control Period shall mean to be the period comprising of a Quarter)

Based on the above submissions, the licensee appeal to the Commission to accept the above formula for recovery of FPPPA charges.

Commission's Analysis

Regulation 90.1 of MSERC MYT Regulation 2014 provides that Commission shall allow the recovery or refund, as the case may be, of additional charge for adjustment of Tariff on account of change in fuel related costs of electricity generation and purchase of electricity.

Regulation 90.3 of MSERC MYT Regulation 2014 provides that generating company or licensee shall put forth a formula for such recovery or refund in their Tariff petition for approval by the Commission.

Regulation 90.5 of MSERC MYT Regulation 2014 provides that generating company or licensee shall send detail calculation of such charge quarterly to the Commission for scrutiny and approval along with the charge actually recovered/ refunded.

Regulation 90.6 of MSERC MYT Regulation 2014 provides that generating company or licensee shall refund or recover, as the case may be, any difference of such charge already recovered by it and now approved by the Commission.

Commission considers that MePDCL would purchase power from the state generation units at the price fixed by the MSERC. The question of variation in the Power Purchase price from the state generation units will not arise. The Price once fixed by the Commission shall prevail during the entire financial year.

Further Commission considers that the price of power procured from CGS, NEEPCO & NHPC would be decided by the CERC. Any variation in the cost of power would be claimed by the respective generators and the beneficiary shall be discharging the liability as per the Regulations.

The proposal made by MePDCL for adjustment of FPPPA towards unpredictable and unforeseen cost under or over recovery shall be met as per the approvals of the CERC against the claims made by the respective generators.

Commission has considered the Power Purchase cost proposed by MePDCL in the petition for MYT control period FY 2018-19 – FY 2020-21.

No short term power procurement is considered in the present order, since the energy availability from own generation stations and CGS, NEEPCO & NHPC is approved as per the quantum and cost as projected by the licensee.

The formula proposed at Para 3.4.8.3 of petition claiming interest cost for delay in realization of FPPPA is not considered. Commission considers that the interest on working capital as per the Regulation 34.1. (iii) has been allowed in the ARR for MYT control period which shall suffice to meet the actual requirement of interest cost to discharge any eventual liability during the financial year.

The Regulation 90.7 does not provide for adjustment of unadjusted amount, if any from the previous control period and the licensee shall recover Power Purchase and fuel cost once in three months during the financial year by submitting copies of invoices to the Commission for its approval.

The interest cost included in the formula also is not considered, since there is no provision in the Regulations.

The Regulation 90.4 of MSERC (Multi Year Tariff) Regulations 2014 explicitly specifies that the licensee shall determine such charge in accordance with the FPPPA formula and after getting the approval of the Commission recover or refund the same from its consumers. As such the Commission does not consider the

proposal of the petitioner for obtaining post facto approval rather than prior approval as specified.

The licensee has quoted the orders of APTEL in Appeal no.97 of 2015 in support of its petition for a new FPPPA formula. However, a close reading of the same would indicate that the APTEL order implies that the Commission has the responsibility to consider and keep in mind any potential impact on consumer tariff. Needless to say, the Commission can fulfil this responsibility only when the prior approval of the Commission is sought and obtained before any increase is applied in the bills of the customers.

“vi. ... As put up by the Appellant that the frequency of such Supplementary bills is not fixed and they may pertain to higher time period too, while deciding the impact of Supplementary bills, the State Commission needs to take due care of impact in consumer tariff too. However, in the present case, we would not like to interfere.

viii. Hence this issue is decided against the Appellant”.

The Commission has already approved the FPPPA formula on 24th October 2017, relating to the case No. 6 of the Petition filed by MeECL and forwarded to them vide their letter no. MSERC/MeECL/FPPPA/2017/152. Consequent thereto, the licensee has also submitted, vide petition dated 14.02.2018, for approval of the Commission, its FPPPA claim for the period from first quarter to second quarter of FY 2017-18. No difficulties or problems have been indicated by the licensee which would necessitate a change or modification of the FPPPA formula exists at present.

In view of the above facts, the Commission does not consider it necessary to modify the FPPPA formula as requested.

8 Wheeling Charges and cross subsidy surcharges

8.1 Wheeling Charges

Petitioner's Submission

MePDCL has submitted that the Wheeling Charges applicable for Distribution Open Access consumers at 33 kV voltage level for FY 2018-19 has been determined as per 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:

$$\text{Wheeling Charges} = (\text{ARR} - \text{PPC} - \text{TC}) / (\text{ALSD} \times 365) \text{ (in Rs. /MW-Day)}$$

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 2018-19 of the Distribution Wires Business, as determined in the below table:

Table 8.1: Wheeling Charges for FY 2018-19 Projected

Particulars		Amount
Net ARR of Distribution Business (In INR Cr)	A	2092.74
Power Purchase Cost(In INR Cr)	B	1456.82
Inter and Intra State Transmission Charges(In INR Cr)	C	409.34
Net ARR of Wire Business (In INR Cr)	D=A-B-C	226.58
Estimated Load for FY 2018-19 (MW)	E	204.31
Wheeling Charges (Rs/MW-Day)	F=D/(E*365)	30381.43
Wheeling Charges (Rs/Unit)		1.27

Commission's Analysis

The Commission has noted the submission of the Petitioner and taken a view in this Order. The Commission has fixed the ARR of MePDCL for FY 2018-19 as per the Regulations and taken as the base for determining the wheeling charges in accordance with MSERC (Terms and conditions of open Access) Regulations, 2012.

Table 8.2 Approved Wheeling charges for FY 2018-19

Particulars	(Rs. Crore)
ARR of MePDCL for FY 2018-19 excluding Non- Tariff income (1477.39 – 119.91)	1357.48
Less: Power Purchase cost of MePDCL	1017.42
Less: Transmission Charges of MePTCL & PGCIL	260.86
ARR – PPC - Transmission Charges	79.20
Total Sales (MU)	1015.62
Wheeling Charges (79.20 / 1015.62)	78 Ps/KWh

Wheeling charges per unit rate works out to Rs.0.78Ps/kWh.

Commission directs the licensee to recover the wheeling charges as per Regulations payable on the basis of contracted capacity/ scheduled load or actual power flow whichever is higher.

8.2 Cross Subsidy Surcharge**Petitioner's Submission**

The open access consumers are liable to pay cross subsidy surcharge to compensate the distribution utility for any loss of revenue due to shifting of its consumers to the open access system. The licensee is proposing Cross Subsidy

Surcharge for Industrial HT & Industrial EHT Consumers based on Clause 103 of MSERC (Multi Year Tariff) Regulations, 2014 which is given below:

“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.”

In line with the Regulations, the Commission has tried to find out the cross subsidy surcharge in the following manner:

Table 8.3: Cross-Subsidy Surcharge for HT Industrial and EHT Industrial category Projected

Particulars	HT Industrial	EHT Industrial
Average Cost of Supply	8.42	8.42
Average Tariff	9.88	9.18
Cross Subsidy Surcharge	1.46	0.76

Commission’s Analysis

The above submission and formulation by the licensee is not in conformity with the formula as laid down in the National Tariff Policy 2016, which formulation had also been applied by this Commission in the Tariff Order for FY 2017-18. In this connection, the Commission is also constrained to note that its directions in the Tariff Order for FY 2017-18 that the calculation of Cross Subsidy at each voltage level should be filed to the Commission within 6 months time, i.e. the 30.09.2017 had not been complied with fully. An exercise had been done by the Licensee through a consultant in the BYRNIHAT area only, which can hardly be considered to be representative of other areas in the State. A more detailed report would have enabled the Commission to analyse the data and work out the Cost of Supply at each voltage level, and also to decide on the Cross-Subsidy Surcharge on this basis.

The Commission feels that it is incumbent upon it to balance the interests of the general consumers, the Open Access consumers and also the licensee. It is relevant to mention that the Licensee had, in its petition, projected a Cross Subsidy Surcharge of Rs 1.46 for HT Industrial consumers and Re 0.76 for EHT Industrial consumers. On the other hand, the BIA had, in its objections, used the same formula for calculating the Cross Subsidy Charge, and had arrived at a rate of Rs. 0.53/0.22 paise as CSS for HT/ EHT open access respectively.

The Commission had also obtained information relating to the quantum of power obtained through open access by the HT/EHT Industries and the amount paid to the Licensee as Open Access charges during this period. The amount of power obtained through Open Access during the last 3 years is 166.76/88.87/190.11 MU respectively, and the amount of CSS collected by the Utility is Rs 10.13 Cr / 21.84 Cr/ 35.23 Crore respectively. These figures confirm the assumption that the quantum of power brought in through Open Access, and consequently, the amount collected by the Licensee as CSS during the year, is critically dependant on the amount of Cross Subsidy surcharge levied for the year, which was Rs 1.27/1.47 in 2015-16, Rs 1.90/ 1.75 in 2016-17 and Rs 1.34/ 1.44 in 2017-18 for HT/EHT respectively.

This Commission, after due consideration of the matter in its totality is of the view that the Licensee should submit the information as sought for by the Commission at the earliest , so that the CSS payable can be calculated in the manner specified in the Tariff Policy 2016. This is an important issue which needs to be resolved at the earliest, and in order to impress the urgency of this matter on the Licensee, the Commission has decided that the CSS may be fixed at 90% of the rate as fixed in the Tariff Order of the last year, 2017-18.

The Commission will review the matter after receipt of the complete information/data as called for from the licensee. Till such time, the following rates shall be recovered from the Open Access consumers along with other charges from 1st April 2018, with strict application of the terms and conditions specified in the Regulations.

For HT level : 90 % of Rs. 1.44/kWh = Rs 1.30/kWh @ 6% loss

For EHT level : 90 % of Rs. 1.34/kWh = Rs 1.20 /kWh @ 4% loss

8.3 Additional Surcharge

Petitioner's Submission

MePDCL had submitted that the Hon'ble Commission in its Tariff Order dated 31st March 2017 and its previous Tariff orders directed the licensee to submit its petition for the determination of additional surcharge. Hence based on the Additional Surcharge petition filed by the licensee dated 24 May 2017 to compensate the stranded generation capacity and under recovery of fixed cost, the licensee will be charging an Additional surcharge of Rs.1.76 per unit on monthly basis on the open access customers

The revised rates being proposed are as follows:

Table 8.4: Proposed Open Access Surcharges for FY 2018-19

Sl.No	Particulars	Proposal rates
1	Distribution Wheeling Charges (INR/kWh)	1.27
2	Distribution Wheeling Charges (INR/MW-Day)	30381.43
3	Cross Subsidy Surcharge for HT consumers (INR /KWh)	1.46
4	Cross Subsidy Surcharge for EHT consumers (INR/kWh)	0.76
5	Additional Surcharge (INR/kWh)	1.76

Commission's Analysis

Regulation 25(1) specifies

- a) *A consumer availing open access and receiving supply of electricity from a person other than the distribution licensee of his area of supply shall pay to the distribution licensee an additional surcharge, in addition to wheeling charges and cross subsidy surcharge, to meet the fixed cost of such distribution licensee arising out of his obligation to supply as provided under sub-section (4) of section 42 of the Act.*
- b) *The additional surcharge for obligation to supply shall become payable only if it is conclusively demonstrated that the obligation of a licensee, in terms of*

existing Power Purchase commitments including transmission charges etc, has been and continues to be stranded, or there is an unavoidable obligation and incidence to bear fixed costs consequent to such contract.

- c) The distribution licensee whose consumer intends to avail open access shall submit to the Commission within thirty days of receipt of application an account of fixed cost paid by such open access user which the licensee is incurring towards his obligation to supply and demonstrate if any part of fixed cost has become stranded.*
- d) The Commission shall scrutinize the statement of accounts submitted by the licensee and obtain objections, if any, of the consumer and determine the amount of additional surcharge, if any, payable by the consumer.*
- e) The additional surcharge shall be levied for such period not normally exceeding one year as the Commission may determine.*

The Licensee is mandated to file petition with the data as required in sub-regulation (b) & (c) above and to conclusively demonstrate that its obligation has been stranded or that there is an unavoidable obligation and incidence to bear fixed cost. This requirement has not been met by the licensee. Hence the Commission does not consider additional surcharge.

The distribution wheeling charges and cross subsidy surcharge for HT & EHT consumers has been notified in the Para 8.2.

9 Directives

9.1 Compliance of Directives of last Tariff Order

1) Computerized billing

It is submitted that the consumers in Shillong, Jowai, Nongpoh, Sohra, Mairang and Nongstoin can deposit at any collection centre where SAP billing system is being implemented. Also with the opening of the collection centres through CSC-SPV the consumers can make payment from any of these counters throughout the State.

Commission directs that Licensee shall further strengthen the facility and implement 100% computerised billing to avoid manual interference.

2) Energy audit

As per the MOU entered for implementation of UDAY scheme, energy audit at 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.**

3) Submission of audited accounts

The accounts for FY 2015-16 and FY 2016-17 may be ensured to be audited by C & AG. **Commission directs the Licensee to expedite the process of obtaining the C&AG report on the annual accounts year on year and submit the same along with true up petition of relevant year.**

4) Settlement of past dues

It is submitted that action has been taken to see that there is no power regulation to the consumers, and for this purpose, efforts are being made to clear the outstanding power purchase dues. Accordingly, in order to clear the power purchase dues of NEEPCO, MePDCL has approached Power Finance Corporation Limited (PFC) for sanction of medium term loan to pay off its outstanding dues of power purchase, and has also sought approval of MSERC. The Commission has allowed working capital needs of the Licensee in order

to pay the power purchase dues to the suppliers. Regulations do not allow any late payment surcharge for delayed payment.

Commission directs that effective steps are taken to settle the past dues.

5) **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 directs the licensee to advise EESL to strengthen their publicity efforts in local media and also increase the number of outlets/ agencies for sale of LED lamps and fittings to the consumers in general.

6) **Man power utilization study**

It is 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 30/06/18 positively.

7) The Commission directs the Licensee that payables/receivables towards UI are properly scrutinized so that any excess allowed in the power purchase cost, due to difference in scheduling and actual drawal, by the open access consumer is not collected twice.

8) 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.

- 9) The Commission directs the licensee to look into the representation of the BIA in the light of judgement made by the Hon'ble Supreme Court dated 28.08.2012.
- 10) The Commission directs the Licensee that there should be an independent audit of power purchases from FY 2011-12 to FY 2014-15 where in the study should be made on current bill for each year, the delayed payment surcharge, and supplementary bills because of revision of tariffs separately. This report should be submitted to the Commission along with C&AG audit report in the next true up petition.
- 11) The Commission directs the licensee to give a report on realization of dues as per the Commission's Order for the past period from OA consumers by 30.06.2018. The Commission reiterates that NOC for open access consumers shall only be given to those who have no pending dues against them as per the Regulations.
- 12) The Commission directs the Licensee to segregate the Technical & Commercial losses and submit the report to the Commission, in so far as it relates to the revenue yielding areas. This report should be submitted latest by 30.06.2018. The Commission advises the management to go for third party verification in Industrial areas.

9.2 New Directives

1) 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 12.19% by FY 2019-20 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.

2) Billing Efficiency

The licensee has furnished average billing rate lower than approved tariffs for the FY 2015-16 & FY 2016-17 vide letter dated 05.01.2018 at Rs.5.18/KWh and Rs.5.58/kWh as against the approved rate of Rs.5.78/KWh and Rs.6.23/KWh respectively. The licensee shall improve billing efficiency in order to achieve the targets set in UDAY Scheme as per MoU in the second control period.

3) 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 results 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 1800 MU available annually during the control period.

- 4) Licensee had been filing tariff petitions belatedly for FY 2016-17 and FY 2017-18 without submitting audited accounts for FY 2014-15 and FY 2015-16

respectively and seeking provisional true up which is a deviation from the Regulation 15 (3) of MSERC Regulations, 2011.

The delay in filing the petitions with in-adequate data and without audited accounts results in duplication of the true up exercise for the same period and in the process, the distribution of gains/losses to the beneficiaries is delayed.

The Commission will not accept the petitions filed with in-adequate information / data and without the relevant audited accounts in future. The Licensee shall bear the obligation of interest claims if any, made by aggrieved Stake Holders.

- 5) In view of the mandatory achievement of T&D losses prescribed in the UDAY Scheme, the licensee shall ensure reduction in T&D losses, as targeted therein.
- 6) The Licensee is directed to file true up petition along with C&AG report, since the true up orders for FY 2014-15 were passed only on provisional basis. The true up shall be taken up for the FY 2015-16 and 2016-17 only on filing of C&AG report as per the Regulations.

7) 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 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 30.06.2018. 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 irritants like wrong billing etc are avoided.

- 8) An analysis of data submitted by the licensee gives rise to the suspicion that there are large number 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.
- 9) Licensee is directed to avail the provision of free power from NEEPCO where entitled on highest priority and a detailed report submitted to the Commission by 30th June 2018, in order to reduce the power purchase cost.

Ferro Alloys: BIA has represented that a separate tariff for Ferro Alloys industries may be considered. In view of the power-intensive nature of the industry, a high Load Factor of 85%. The petitioner also indicated that in some states, this has already been done. Licensee shall examine the case and a report may be submitted to the Commission on the need, justification and feasibility thereof, giving appropriate details. This may be submitted to the Commission by the 30/6/2018.

- 10) MePGCL, MePTCL and MePDCL shall update the Assets Records and submit a report to the Commission by 30th September 2018.
- 11) 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.

10. APPROVED TARIFFS FOR FY 2018-19

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 household 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.

1.1.1 Unmetered Kutir Jyoti

The existing Tariff for this category of consumers is Rs. 130 per connection per month. The MePDCL has proposed a rate of Rs 170 per connection per month for this category. The Commission has approved tariff of Rs. 170 per connection per month for all existing unmetered consumers.

Tariff for Kutir Jyoti/BPL (Unmetered for FY 2018-19)

Category	Existing Tariff (Rs./connection/month)	Proposed Tariff (Rs./connection/month)	Approved Tariff (Rs./connection/month)
Kutir Jyoti(KJU/BPLU)	130	170	170

This Tariff is applicable for existing unmetered consumers under Kutir Jyoti category until they are metered. No new connection should be given without meter.

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. 3.65 per 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 2018-19

Category	Existing Tariff (Rs. /kWh)	Proposed Tariff (Rs. /kWh)	Approved Tariff (Rs. /kWh)
Kutir Jyoti (KJ/BPL)	2.80	3.65	3.65

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 2018-19**

Category	Existing Tariff (Rs. /kW/month)	Proposed Tariff (Rs./kW/month)	Approved Tariff (Rs. /kW/month)
Domestic (DLT)	50	60	50

Energy Charges**Energy charges for Domestic Consumers for FY 2018-19**

Category	Slabs	Existing Tariff (Rs./kWh)	Proposed Tariff (Rs./kWh)	Approved Tariff(Rs./kWh)
Domestic (DLT)	First 100 units	3.30	4.30	3.70
	Next 100 units	3.90	5.05	4.20
	Above 200 units	5.30	6.90	5.70

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 2018-19**

Category	Existing Tariff (Rs. /kW/month)	Proposed Tariff (Rs./kW/month)	Approved Tariff (Rs. /kW/month)
Non- Domestic (CLT)	110	150	110

Energy Charges**Energy charges for Non- Domestic consumers for FY 2018-19**

Category	Slabs	Existing Tariff (Rs./kWh)	Proposed Tariff (Rs./kWh)	Slabs	Approved Tariff (Rs./kWh)
Non Domestic (CLT)	First 100 units	5.50	8.35	First 100 Units	6.10
	Above 100 Units	7.00		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 2018-19

Category	Existing Tariff (Rs. /kW/Month)	Proposed Tariff (Rs./kW/Month)	Approved Tariff (Rs. /kW/Month)
Industrial (ILT)	110	150	110

Energy Charges

Energy charges for Industrial (LT) consumer for 2018-19

Category	Existing Tariff (Rs. /kWh)	Proposed Tariff (Rs./kWh)	Approved Tariff (Rs. /kWh)
Industrial (ILT)	5.60	6.60	6.00

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 2018-19

Category	Existing Tariff (Rs. /kW/Month)	Proposed Tariff (Rs./kW/Month)	Approved Tariff (Rs. /kW/Month)
Public Lighting(Metered)	110	150	110

Energy Charges

Energy charges for Public Lighting (Metered) for 2018-19

Category	Existing Tariff (Rs/kWh)	Proposed Tariff (Rs/kWh)	Approved Tariff (Rs/kWh)
Public Lighting(PL)	6.30	8.20	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 2018-19

Category	Existing Tariff (Rs/kW/ Month)	Proposed Tariff (Rs/kW/ Month)	Approved Tariff (Rs/kW/ Month)
Public Water Supply (WSLT)/Sewage Treatment Plants	110	150	110

Energy Charges**Energy charges for Public Water Supply for 2018-19**

Category	Existing Tariff (Rs/kWh)	Proposed Tariff (Rs/kWh)	Approved Tariff (Rs/kWh)
Public Water Supply (WSLT)/ Sewage Treatment Plants	6.30	7.40	6.70

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**Fixed charges for General purpose for 2018-19**

Category	Existing Tariff (Rs/kW/ Month)	Proposed Tariff (Rs/kW/ Month)	Approved Tariff (Rs/kW/ Month)
General purpose(GP)	110	150	110

Energy Charges**Energy charges for General purpose for 2018-19**

Category	Existing Tariff (Rs/kWh)	Proposed Tariff (Rs/kWh)	Approved Tariff (Rs/kWh)
General Purpose(GP)	6.30	8.20	6.90

8. Agriculture

This category is meant for agriculture where there are only few consumers in the State.

Fixed Charges**Fixed charges for Agriculture for 2018-19**

Category	Existing Tariff (Rs/kW/HP/ Month)	Proposed Tariff (Rs/kW/HP/ Month)	Approved Tariff (Rs/kW/HP/Month)
Agriculture (AP)	100	130	100

Energy Charges**Energy charges for Agriculture for 2018-19**

Category	Existing Tariff (Rs/kWh)	Proposed Tariff (Rs/kWh)	Approved Tariff (Rs/kWh)
Agriculture (AP)	2.75	3.60	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 2018-19**

Category	Existing Tariff (Rs/conn/Month)	Proposed Tariff (Rs/conn/Month)	Approved Tariff (Rs/conn/Month)
Crematorium (CRM)	6500	8450	6500

Energy Charges**Energy charges for Crematorium for 2018-19**

Category	Existing Tariff (Rs/kWh)	Proposed Tariff (Rs/kWh)	Approved Tariff (Rs/kWh)
Crematorium (CRM)	3.75	4.90	4.10

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.

10. 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 2018-19**

Category	Existing Tariff (Rs/kW/Month)	Proposed Tariff (Rs/kW/Month)	Approved Tariff (Rs/kW/Month)
Domestic HT(DHT)	200	260	200

Energy Charges**Energy charges for Domestic (HT) for 2018-19**

Category	Existing Tariff (Rs/kWh)	Proposed Tariff (Rs/kWh)	Approved Tariff (Rs/kWh)
Domestic HT (DHT)	6.00	7.00	6.20

11. 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) for 2018-19**

Category	Existing Tariff (Rs/kVA/Month)	Proposed Tariff (Rs/kVA/Month)	Approved Tariff (Rs/kVA/Month)
Non Domestic HT (CHT)	200	260	200

Energy Charges**Energy charges for Non Domestic (HT) for 2018-19**

Category	Existing Tariff (Rs/kVAh)	Proposed Tariff (Rs/kVAh)	Approved Tariff (Rs/kVAh)
Non Domestic HT (CHT)	6.50	8.45	6.60

High Tension Industrial

These are industrial consumers taking supply on HT. These consumers are charged on kWh 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 revised as follows.

Fixed Charges

Fixed charges for Industrial (HT) for 2018-19

Category	Existing Tariff (Rs/kVA/Month)	Proposed Tariff (Rs/kVA/Month)	Approved Tariff (Rs/kVA/Month)
Industrial High Tension	200	260	200

Energy Charges

Energy charges for Industrial (HT) for 2018-19

Category	Existing Tariff (Rs/kVAh)	Proposed Tariff (Rs/kVAh)	Approved Tariff (Rs/kVAh)
Industrial High Tension	6.50	8.45	6.60

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 applicable
1700-2300 hrs	Peak	(+)20% of normal tariff
2300-0600 hrs	Off-Peak	(-)20% of normal tariff

12. General Purpose Bulk Supply

Fixed Charges

Fixed charges for General Purpose Bulk (HT) for 2018-19

Category	Existing Tariff (Rs/kVA/Month)	Proposed Existing Tariff	Approved Tariff (Rs/kVA/Month)
General Purpose Bulk Supply(BS)	200	260	200

Energy Charges

Energy charges for General Purpose Bulk (HT) for 2018-19

Category	Existing Tariff (Rs/kVAh)	Proposed Tariff (Rs/kVAh)	Approved Tariff (Rs/kVAh)
General Purpose/Bulk Supply	6.00	7.00	6.20

13. Public Water supply/ Sewage Treatment Plant**Fixed Charges****Fixed charges for Public Water Supply (HT) for 2018-19**

Category	Existing Tariff (Rs/kVA/Month)	Proposed Tariff (Rs/kVA/Month)	Approved Tariff (Rs/kVA/Month)
Public Water	200	260	200

Energy Charges**Energy charges for Public Water Supply (HT) for 2018-19**

Category	Existing Tariff (Rs/kVAh)	Proposed Tariff (Rs/kVAh)	Approved Tariff (Rs/kVAh)
Public Water Supply	6.00	7.80	6.50

14. Extra High Tension Industrial**Fixed Charges****Fixed charges for Industrial (EHT) for 2018-19**

Category	Existing Tariff (Rs/kVA/Month)	Proposed Tariff (Rs/kVA/Month)	Approved Tariff (Rs/kVA/Month)
Industrial (IEHT)	200	260	200

Energy Charges**Energy charges for Industrial (EHT) for 2018-19**

Category	Existing Tariff (Rs/kVAh)	Proposed Tariff (Rs/kVAh)	Approved Tariff (Rs/kVAh)
Industrial (IEHT)	6.00	7.80	6.20

15. 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 applicable
1700-2300 hrs	Peak	(+)20% of normal tariff
2300-0600 hrs	Off-Peak	(-)20% of normal tariff

C. Others

17. Temporary Supply

MeECL 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 MeECL to release temporarily connections only through pre-paid metering limiting to maximum of 3 (three) months period as per existing terms and conditions of the tariff rate schedule.

COMPARISON OF TARIFFS

Sl. No	Category	Existing (2017-18)		Approved (2018-19)	
		Fixed charges (Rs./con/KW)	Energy charges (Rs/kWh)	Fixed charges (Rs./con/KW)	Energy charges (Rs/kWh)
1	KutirJyoti	-	-	-	-
	Unmetered	130/conn	-	-	170/con
	Metered		2.80		3.65
2.	Domestic(DLT)				
	First 100 units	50	3.30	50	3.70
	Next 100 units	50	3.90	50	4.20
	Above 200 units	50	5.30	50	5.70
3	Commercial (CLT)				
	First 100 units	110	5.50	110	6.10
	Above 100 units	110	7.00	110	7.30
4	Industrial (ILT)	110	5.60	110	6.00
5	Low tension public service LT (PSLT)	-	-	-	-
6	Public Lighting (PL) (metered)	110	6.30	110	6.50
	LED Fittings	500		50	4.25
7	Public Water Supply / sewage treatment plant (WSLT)	110	6.30	110	6.70
8	General Purpose (GP)	110	6.30	110	6.90
9	Agriculture (AP)	100	2.75	100	3.00
10	Crematorium	6500	3.75	6500	4.10
11	High Tension				
(a)	Domestic (DHT)	200	6.00	200	6.20
				(Rs./kVA/month)	(Rs./kVAh)
(b)	Commercial HT (CHT)	200	6.50	200	6.60
(c)	Industrial (IHT)	200	6.50	200	6.60
(d)	Public Water Supply (WS)	-	-	200	6.50
(f)	General Purpose / Bulk Supply (BS)	200	6.00	200	6.20
	Extra High Tension				
(g)	Industrial EHT	200	6.00	200	6.20

Annexure-I

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

Present:-

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

From Meghalaya Energy Corporation Limited.

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

Consultants of MeECL

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

Calling the 21st Meeting of the state Advisory Committee (SAC) to order, the Chairman welcomed the members present. He briefly introduced the members and explained the purpose of the meeting as envisaged in the Electricity Act 2003. He also briefed the members on the present MSERC, MYT Regulations 2014 and implications of each of the component of ARR in the Tariff. Members of the Advisory committee were briefed that the Commission has admitted ARR petition for Distribution, Transmission and Generation on 04.12.2017. The utilities had published the salient features of this petition inviting comments of each stakeholders including public. On the ARR & Tariff Petition for the year 2018-19, the Chairman called upon the Hon'ble Members to

participate in the deliberations and put forward their suggestions. Chairman then requested regulatory officers of Generations, Transmission and Distribution companies to make the presentation. The proposed Tariff for FY 2018-19 by MePDCL is shown in the table A., below:

Table A: Proposed Tariffs by MePDCL for FY 2018-19

Sl.No	Category	Exiting Tariff		Proposed Tariff	
		Fixed Charges (Rs./kW/month)	Energy Charges (Rs./KWh)	Fixed Charges (Rs./KW/month)	Energy Charges (Rs./KWh)
1	Kutir Jyoti (U)				
	Unmetered (per conn.)	130		170	
	Metered		2.80		3.65
2	Domestic (DLT)	50		65	
A	First 100 units		3.30		4.30
B	Next 100 Units		3.90		5.05
C	Above 200 Units		5.30		6.90
3	Commercial (CLT)	110		150	8.35
A	First 100 units		5.50		
B	Above 100 Units		7.00		
	Public Lighting (PL)	110	6.30	150	8.20
5	Fixed Charges for Public Lighting (Unmetered)	Rs./Lamp/Point/M onth			
	Types of Lamps				
A	Fluorescent Lamp				
	Up to 40W	180		235	
B	Mercury Vapour Lamp				
I	80 W	300		390	
ii	125 W	400		520	
iii	250W	800		1040	
iv	500W	1500		1950	
	Sodium Vapour lamp				
I	Upto 150W	700		910	
ii	250W	900		1170	
iii	400W	1400		1820	
D	CFL Fittings				
I	Upto 45 W	200		260	
ii	Above 45 Up to 85 W	300		390	
E	LED Fittings	500		650	
F	Metal halide	700		910	
6	General Purpose (GP)	110	6.30	150	8.20
7	Agriculture (AP)	100	2.75	130	3.60
8	Crematorium (Rs./Connection/Mont h)	6500	3.75	8450	4.90

Sl.No	Category	Exiting Tariff		Proposed Tariff	
		Fixed Charges (Rs./kW/month)	Energy Charges (Rs./KWh)	Fixed Charges (Rs./KW/month)	Energy Charges (Rs./KWh)
		(Rs./Kw/month)	(Rs./kWh)	(Rs./Kw/month)	(Rs./kvah)
9	Industrial (ILT)	110	5.60	150	6.60
10	Public Water Supply / sewage treatment plant (WSLT)	110	6.30	150	7.40
	High Tension				
11	Domestic (DHT)	200	6.00	260	7.00
12	General Purpose/ Bulk Supply (BS)	200	6.00	260	7.00
		Rs./KVA/month	Rs./Kvah	Rs./KVA/month	Rs./Kvah
13	Commercial (CHT)	200	6.50	260	8.45
14	Industrial (IHT)	200	6.50	260	8.45
15	Public Water Supply (WSHT)	200	6.00	260	7.80
	Extra High Tension	Rs./KVA/month	Rs./Kvah	Rs./KVA/month	Rs./Kvah
16	Industrial EHT	200	6.00	260	7.80

Tariff proposal indicated some new proposals put forward in the Distribution Business plan, namely:-

Time of Day Tariff:-

- MeECL proposed time of day (TOD) Tariff for Industrial Consumers of HT Categories, as directed by the Commission.

1 Kvah Tariff for LT industrial Consumers, HT Domestic and Bulk Supply:-

- In order to improve the power factor, MePDCL is proposing to extend the KVAh Tariff for LT industrial Consumers and LT water supply as well as other HT categories namely HT Domestic and Bulk Supply

2 Rebate to Captive Consumers

- Rebate applicable on existing HT & EHT industrial consumers who have been meeting their demand either partially or fully through their captive power plants during the last financial year.
- Consumer required to apply with the licensee for the rebate indicating that they would be availing supply from the licensee by switching consumption from his existing captive plant (either by becoming a new consumer of licensee or by reducing the share of power drawn from the captive plant)

- A rebate of 10% in energy charges shall be provided to Such consumers on the incremental units consumed from the licensee

1 Shri P.W. Ingty, IAS,

Shri P.W. Ingty, IAS, brought up many pertinent issues relating to Tariff and informed that many industries getting power supply through HT/EHT LINES have shifted from Meghalaya and closed their factories on the ground that power Tariff in Meghalaya are very high.

He has appreciated that through the separate petitions filed by MePGCL and MePTCL as required under the Electricity Act, 2003 it has been possible to get a comparative picture of the Tariff propose at present, and the last few years, and this would lead to a much better understanding of the workings of MeECL.

2 Shri U N Madan

Shri. U.N. Madan wanted that the performance of MePDCL needs to be improved terms of better operation, quality supply and improvement in their current efficiency to work & optimize resources.

Shri. U.N. Madan requested the Commission to review the status of direction given to MePGCL, MePDCL and MePTCL last year while finalizing the Tariff Order so that the road map given by the Commission is properly implemented in the interest of the Public.

Summing-up the discussions, the chairman placed on record his profound gratitude to the Hon'ble Members present, for their valuable suggestions and submissions and assured that these would be kept in view, while finalizing the Tariff for the year 2018-19, for which the Commission would be guided by the provisions of the Electricity Act 2003 and National Tariff Policy 2016.

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

Annexure-II

List of the Objectors

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

- 2. Greater Shillong Crematorium & Mortuary Society**
Shillong Electric Crematorium Complex
T.B. Hospital Road, Jhalupara, Shillong
Meghalaya

- 3. Green Valley Industries Limited**
Nongsning
Jaintia Hills District
Meghalaya 793200