Petition for

Limited Provisional True-up of FY 2018-19
Annual Performance Review of FY 2019-20
ARR and Tariff Petition for FY 2020-21
Of
MSPDCL for Distribution and Retail Supply Business

Submitted to:

Joint Electricity Regulatory Commission
for Manipur and Mizoram

By

MANIPUR STATE DISTRIBUTION COMPANY LTD.
(IMPHAL)

December 2019

BEFORE THE HONOURABLE JOINT ELECTRICITY REGULATORY COMMISSION FOR MANIPUR AND MIZORAM

FILING NO __________

CASE NO __________

IN THE MATTER OF: Petition for Approval of Limited Provisional True up of FY 2018-19, Annual Performance Review for FY 2019-20 and Determination of ARR & Tariff for FY 2020-21 of Manipur State Power Distribution Company Limited under Sections 61, 62 and 64 of the Electricity Act 2003.

AND

IN THE MATTER OF: Manipur State Power Distribution Company Limited

THE PETITIONER Imphal

....PETITIONER

THE PETITIONER, UNDER SECTIONS 61, 62 AND 64 OF THE ELECTRICITY ACT, 2003 FILES FOR INITIATION OF PROCEEDINGS BY THE HONORABLE COMMISSION FOR DECIDING ON THE MATTERS CONCERNING THE APPROVAL OF LIMITED PROVISIONAL TRUE UP OF FY 2018-19, ANNUAL PERFORMANCE REVIEW FOR 2019-20 AND DETERMINATION OF ARR & TARIFF FOR FY 2020-21 OF MANIPUR STATE POWER DISTRIBUTION COMPANY LIMITED (HEREINAFTER REFERRED TO AS “MSPDCL” OR “PETITIONER”)

THE MANIPUR STATE POWER DISTRIBUTION COMPANY LIMITED RESPECTFULLY SUBMITS AS UNDER:

1. The Petitioner, Manipur State Power Distribution Company Limited (MSPDCL) is the sole Distribution Licensee in the State of Manipur, which has been formed after the restructuring of the erstwhile Electricity Department of Manipur. With effect from 1 February, 2014, the Electricity Department of Manipur has been restructured into two Companies, viz., the Manipur State Power Distribution Company Limited (MSPDCL) responsible for distribution and supply in the State

of Manipur, and the Manipur State Power Company Limited (MSPCL) responsible for generation and transmission functions in the State of Manipur.

2. As per JERC (Multi Year Tariff) Regulations, 2014, the ARR and tariff of transmission and distribution are to be determined separately. In the Tariff Order for FY 2014-15, the Hon'ble Commission has also issued a directive for filing separate Petitions for Transmission Business and Distribution and Retail Supply Business. The two restructured Companies had filed separate ARR Petitions for Distribution and Transmission for the first time at the time of tariff determination for FY 2017-18, and the Hon'ble Commission issued separate Orders for Transmission and Distribution.
3. The present Petition is for Limited Provisional True up of FY 2018-19, Annual Performance Review 2019-20 and Determination of ARR & Tariff for FY 2020-21 based on the ARR approved by the Hon'ble Commission for FY 2020-21 in the MYT Order for MSPDCL dated 12 March, 2018 in Petition (ARR & Tariff) No. 1 of 2018.
4. In accordance with the Electricity Act, 2003, MSPDCL is required to submit its Annual Revenue Requirement (ARR) and Tariff Petition as per procedures outlined in Sections 61, 62 and 64 of the Electricity Act, 2003 and the governing Regulations thereof.
5. MSPDCL hereby submits its Petition for approval of Limited Provisional True up for FY 2018-19, Annual Performance Review for FY 2019-20 and Determination of ARR & Tariff for FY 2020-21 in accordance with the principles specified in the JERC (Multi Year Tariff) Regulations, 2014, notified by the Hon'ble Commission.
6. MSPDCL prays to the Hon'ble Commission to admit the enclosed Petition for Limited Provisional True up of FY 2018-19, Annual Performance Review for 2019-20 and Determination of ARR & Tariff for FY 2020-21, and grant the specific reliefs prayed for.

Manipur State Power Distribution Company Limited
Petitioner
Place: Imphal
Dated: 30 December 2019

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1. Chapter 1: Introduction

1.1 Historical Background

The commissioning of the two micro hydel sets having capacities of 100 kW and 56 kW at Leimakhong in 1930 by the then Manipur State HE Board marked the beginning of the use of electricity in Manipur. The Royal palace and main areas of Imphal Town enjoyed electricity generated from this captive hydel station. During World War-II, two more DG sets of 62 kW and 46 kW capacities were installed at the old Imphal Power House by the Armed Forces for electrification of Imphal town and its suburbs. The above installed capacity remained the same till the end of the first Five Year plan (1951-56) of the post-independence period. The second Five Year Plan (1956-61) however saw a significant change in the demand of power in the State. The demand grew rapidly, which necessitated further addition in the generation capacity that was accomplished with the installation of a few more DG sets of various capacities in and around Imphal.

To evacuate the power generated from the captive micro hydel power station (100 + 56) kW at Leimakhong to specific load centres of Palace Compound and main bazar area of Imphal, the 20 km long, 11 kV line between Imphal and Leimakhong was constructed for the first time in Manipur in 1930. The State was then having 26 km of 11 kV lines and 45 km of domestic lines to serve very few consumers in 7 villages/Leikais. The line and generating stations were owned by the then Manipur State HE Board, constituted under the ex-officio Chairmanship of the Political Agent. Subsequently, electricity was kept under the administrative control of the Public Works Department, Government of Manipur. It was separated from the State PWD and started functioning as an independent Department since February 1970.

The peak load demand of Manipur in 1971 was 3.6 MW only, which was met from the State's own generating stations and power purchased from the neighbouring States/Electricity Boards at low voltage. The per capita consumption of energy was 4.84 kWh. The scenario abruptly changed after the purchase of bulk power from Assam with the commissioning of 132 kV inter-State transmission line from Imphal to Dimapur and 6.3 MVA, 132/33 kV sub-station at Yurembam in December 1981. The situation improved further with the commissioning of Loktak Hydro Electric Project having a capacity of 3x35 MW on 4 August, 1984.

During the years from 1984 to 1996, a number of Central Sector Power Projects, mostly hydel projects, were commissioned in the North Eastern Region. Manipur State has a share of about 7-8% in every project. Because of the power availability from such projects, the peak demand of the State has increased gradually and in FY 2019-20, it has increased to more than 200 MW.

After the enactment of Electricity Act 2003, various reforms have been initiated in the power sector including restructuring of integrated State Electricity Boards into separate Companies. With effect from 1 February, 2014, the Electricity Department of Manipur (EDM) was restructured and separated into two different entities, viz., (1) Manipur State Power Distribution Company Limited (MSPDCL), and (2) Manipur State Power Company Limited (MSPCL).

Accordingly, MSPDCL is submitting the tariff filing for Wheeling and Retail Supply Business to the Hon'ble Commission.

1.2 Power Profile of MSPDCL

Manipur, like other States of the North-Eastern Region, has been gifted with a fairly high hydro power potential. However, the major portion still remains untapped due to financial and environmental bottlenecks. Currently, the State is having one furnace oil based generating station at Leimakhong (6x6 MW) in standby mode, and a few diesel generating stations. Therefore, the State is dependent upon outside sources for meeting majority of its energy requirement. It is currently getting power from NHPC, NEEPCO, ONGC Tripura Power Corporation (OTPC) Unit I and Unit II, and Baramura Gas Turbine Power Project (BGTPP). The scheduled allocated firm share from the Central Sector generating stations to MSPDCL for current financial year from NEEPCO, NHPC, OTPC-I and II, BGTPP of Tripura State Electricity Corporation Limited (TSECL) and NTPC Bongaigaon is currently around 391.14MW.

For the purpose of evacuating power from different sources in the North-Eastern Region, the inter-state transmission network owned and maintained by PGCIL as well as the intra-state transmission network owned by the Manipur State Power Corporation Limited (MSPCL) is utilised. The existing intra-state transformation capacity of 132 kV Substations in Manipur is 417 MVA and the length of the 132 kV lines is 472.7 km of single circuit lines and 87.9 km of double circuit lines.

1.3 Background of Regulatory Setup

The State Governments of Manipur and Mizoram authorized the Government of India to constitute a Joint Commission as per Memorandum of Agreement dated 23rd July, 2004 among the Government of India and the States of Manipur and Mizoram to regulate the power sector in the States of Manipur and Mizoram. Accordingly, under provisions of Section 83(5) of the Electricity Act, 2003, a quasi-judicial independent body, i.e., the Joint Electricity Regulatory Commission for the States of Manipur & Mizoram (JERC) was constituted by the Central Government vide Govt. of India F. No. 23/3/2002-R&R dated 18 January, 2005 notified in the Gazette of India, Extraordinary dated 18 January, 2005. The functioning of the Commission started on January 2008. The Hon'ble JERC issued its first Tariff Order for FY 2010-11 for the State of Manipur on 15 March, 2011.

The Petition for approval of Limited Provisional True up of FY 2017-18, Annual Performance Review for 2018-19 and determination of ARR and Tariff for the FY 2019-20 was filed by MSPDCL on 24 December 2018 and the Order was issued on 26 March, 2019.

JERC (Multi Year Tariff) Regulations, 2014 requires the Licensees to submit the Tariff Petition for the ensuing financial year before 30th November of the previous year. To fulfil this statutory requirement, MSPDCL is filing the present Petition for approval of Limited Provisional True up of FY 2018-19, Annual Performance Review for 2019-20 and determination of ARR & Tariff for FY 2020-21 before 31st December 2019, in accordance with the JERC (MYT) Regulations, 2014, to enable the issue of the Tariff Order for FY 2020-21, before the start of FY 2020-21.

MSPDCL being a utility undertaking distribution and retail supply function, the cost and expenses of distribution and retail supply functions have been considered together as approved by the Hon'ble Commission, and the Tariff Petition has been filed for seeking approval of the Wheeling Charges and Retail Supply Tariff after allocation of the total ARR of MSPDCL for FY 2020-21 into Wires ARR and Supply ARR based on the Allocation Matrix specified in the JERC (MYT) Regulations, 2014.

In view of the above, MSPDCL hereby submits its Petition for Limited Provisional True up of FY 2018-19, annual performance review for 2019-20 and determination of ARR & Tariff for FY 2020-21.

1.4 Contents of this Petition

This Petition covers the provisional figures for True up of FY 2018-19, annual performance review for FY 2019-20, allocation of the approved ARR for FY 2020-21 into Wires ARR and Supply ARR, and determination of Tariff for FY 2020-21.

2. Chapter 2: Overall Approach for Present Filing

MSPDCL is filing the petition for the Petition for Limited Provisional True up of FY 2018-19, annual performance review for FY 2019-20 and determination of ARR and Tariff for FY 2020-21.

2.1 Approach for Filing

The present filing for the Limited Provisional True up of FY 2018-19, annual performance review for FY 2019-20 and Determination of ARR and Tariff for FY 2020-21 is based on the principles specified in the JERC (Multi Year Tariff) Regulations, 2014 notified on 9 June, 2014.

In accordance with the JERC (MYT) Regulations, 2014, MSPDCL is supposed to submit final true up petition for FY 2018-19. MSPDCL respectfully submits that due to unbundling of EDM in 2014, various structural, organizational, commercial, financial and administrative aspects have had to be segregated in separate books for the unbundled utilities. These processes were time consuming, which caused delay in preparation of the Balance Sheet of MSPDCL for FY 2014-15. This delay has also caused to postpone the finalization of the accounts for FY 2015-16, FY 2016-17, FY 2017-18 and FY 2018-19 and getting it audited by a statutory auditor.

Thus, due to aforesaid reasons, the annual accounts for FY 2018-19 could not be finalized, hence, MSPDCL is unable to submit the True up Petition for FY 2018-19 in accordance with the JERC (MYT) Regulations, 2014. As and when the accounts of FY 2018-19 are audited, MSPDCL shall file its final true up petition.

However, it is important to consider the actual data for past years because it forms the base for future projections. Hence, MSPDCL is submitting the actual sales and power purchase data for FY 2018-19, as well as the actual O&M expenses and finance related costs for FY 2018-19. Based on the above, a limited provisional True up Petition has been prepared for FY 2018-19. As only limited provisional True up for FY 2018-19 is being claimed, MSPDCL has not requested for pass through of the provisional Revenue Gap of FY 2018-19 and consequent sharing of gains and losses for FY 2018-19 along with this Petition, and the same shall be claimed at the time of seeking final true-up for FY 2018-19 based on audited accounts.

Based on the first six months ARR data there will be some deviations in ARR components than that of approved ARR for FY 2019-20. Despite of fixed schedule, the power availability from Hydro plants is varying due to changes in the hydrology. Further, the monthly power requirement of MSPDCL is varying and hence MSPDCL is not able to absorb the schedule power in non-winter months and requires more power than schedule in winter months. MSPGCL is managing this deviation by adopting the banking facility and partly by sale and purchase of surplus power.

In FY 2019-20, the state is facing draught situation and the scheduled power availability from hydro power particularly from Loktak NHPC plant will be lesser. This will also lead to reduction in free power allocation from this plant. The shortfall in power procurement will have to be met from IEX and other sources especially the thermal power plants which will cause increase in power procurement cost. The JERC (MYT) Regulations, (First Amendment) 2019 has the provision for filing of Annual Performance Review (APR) for the ongoing year, i.e., FY 2019-20 and accordingly MSPDCL is filing APR for FY 2019-20 along with this Petition.

Regulation 4.2 (vi) of the JERC (MYT) Regulations, 2014, clearly specifies that the tariff for Distribution Wires Business and Retail Supply Business shall be determined annually, for each financial year within the Control Period, based on the approved forecast and results of the truing up exercise. As stated above, MSPDCL has not requested for pass through of the provisional Revenue Gap of FY 2018-19 and consequent sharing of gains and losses for FY 2018-19 along with this Petition, as only provisional true-up for FY 2018-19 has been claimed in this Petition. The Hon'ble Commission has already approved the ARR for FY 2020-21 in the MYT Order dated 12 March, 2018 in Petition (ARR & Tariff) No. 1 of 2018. However, based on the current data there are some deviations from the projected ARR approved in MYT order and accordingly revised ARR is being proposed for FY 2020-21. Hence, in accordance with Regulation 4.2 (vi) of the JERC (MYT) Regulations, 2014, MSPDCL has filed this Petition for determination of ARR and Tariff for FY 2020-21.

3. Chapter 3: Limited Provisional true up of FY 2018-19

MSPDCL is a Distribution Licensee, which fulfils the need for electricity of the consumers in the State of Manipur. As explained earlier, MSPDCL is required to submit the request for true-up for FY 2018-19 in this Petition, but since the audited financial accounts of FY 2018-19 are not ready at the time of filing this Petition, MSPDCL is unable to submit the final true up Petition. Hence, MSPDCL hereby submits a limited provisional true-up of FY 2018-19 based on the actual sales, power purchase quantum and costs, O&M expenses and capitalisation for FY 2018-19. As and when the accounts of FY 2018-19 are audited, MSPDCL shall file its final true up Petition. As only limited provisional True up for FY 2018-19 is being claimed, MSPDCL has not requested for pass through of the provisional Revenue Gap of FY 2018-19 and consequent sharing of gains and losses for FY 2018-19 along with this Petition, and the same shall be claimed at the time of seeking final true-up for FY 2018-19 based on audited accounts. The main objective of this limited provisional true-up Petition is to update the Commission regarding the Revenue Gap for FY 2018-19 based on the actual expenses and revenue after considering the subsidy. It may be noted that the true-up Petition is not based on the comparison of the actual expenses and revenue for FY 2018-19 with the expenses and revenue considered by the Hon'ble Commission in the Annual Performance Review (APR) of FY 2018-19 in the JERC tariff Order 20 of 2019 dated 26 March 2019, as in this Order, the Hon'ble Commission has not passed through the impact of the APR, and has captured the values as they are the base values.

3.1 Energy Sales

MSPDCL caters to a diverse consumer mix comprising LT domestic, LT commercial, HT commercial, LT Industry, HT Industry and agriculture consumers. LT Domestic category is the largest consumer category and comprises around 65% of the total sales of MSPDCL. The number of consumers in this category has increased rapidly in the recent years on account of the rural electrification schemes such as RGGVY, Saubhagya, etc. The actual category-wise energy sales as compared to the energy sales approved by the Hon'ble Commission for FY 2018-19 is given in the Table below:

Table 1: Category-wise Energy Sales (MU) for FY 2018-19

Sl. No.	Category	Approved	Actual
A	**LT Supply**		
1	Kutir Jyoti	20.96	3.56
2	LT Domestic	386.83	**382.20**
3	Commercial LT	44	**56.02**
4	Cottage and Small Industry	19.62	19.68
5	Public Lighting	5	3.62
6	Public Water-works	3.6	1.25
7	Irrigation and Agriculture	1.2	1.14
	LT Supply Sub Total	**481.21**	**467.48**
B	**HT Supply**		
1	Commercial	7.89	18.82
2	Medium Industry	4.1	3.99
3	Large Industry	5	7.43
4	Bulk Supply	110.21	78.21
5	Public Water-works	17.34	20.29
6	Irrigation and Agriculture	0.92	0.74
	HT Supply Sub Total	**145.46**	**129.49**
TOTAL		**626.67**	**596.97**

The actual energy sold by MSPDCL in FY 2018-19 was 579.97 MU, which is slightly lower than the approved sales of 626.67 MU. In the FY 2018-19, the Kutir Jyoti consumers have been shifted to the normal domestic category consumers. Further due to increase in domestic category consumers the sales to this category has been increased. Consumption in the public lighting has slightly reduced due to replacement of sodium / mercury vapour street lights to LED based street lights. Overall LT sales has been 467.48MU as against the approved sales of 481.21MU.

In the case of HT category sales the bulk HT supply consumers have been shifted to commercial. The sales to HT commercial and large industries is slightly higher than the approved figures whereas the irrigation and agriculture sales is slightly lower than approved sales for FY 2018-19. Overall HT sales has been 129.49MU as against the approved figures of 145.46 MU.

The MSPDCL requests the Hon'ble Commission to approve the actual category-wise sales of 596.97 MU, as shown in the Table above.

3.2 Distribution Loss

The computation of actual Distribution losses for FY 2018-19 is shown in the Table below:

Table 2: Actual Distribution Losses for FY 2018-19

Sl. No.	Particulars	Unit	Actuals
1	Total Power Purchase	MU	1,021.85
2	Inter-State transmission loss in NER for FY 2017-18	MU	27.77
3	Net Power Purchase (1-2)	MU	994.08
4	IEX Purchase	MU	10.81
5	Return of Banked Energy	MU	165.26
6	Banking to outside utilities	MU	122.04
7	Energy Sold to IEX	MU	130.28
8	Net Available Energy	MU	917.83
9	UI Overdrawal	MU	16.57
10	UI Underdrawal	MU	39.64
11	Net power available at State periphery	MU	894.76
12	Intra State Transmission Loss %	%	10.00%
13	Intra State Transmission Loss (MU)	MU	89.48
14	Net Energy requirement at DISCOM periphery for sale within state	MU	805.28
15	Energy sale within state	MU	596.97
16	Distribution Loss	MU	208.32
17	**Distribution Losses w.r.t Energy Input at DISCOM Periphery**	%	25.87%

The actual Distribution Losses of 25.87% achieved by MSPDCL in FY 2018-19 is slightly higher than the normative Distribution Losses of 17.715% approved by the Hon'ble Commission in the Tariff Order for FY 2018-19, as shown in the Table above. The higher distribution losses are primarily due to the higher LT lengths and the hilly / complex terrain. The long LT distribution lines and distribution at 11 kV are leading to higher distribution losses in the state.

The Distribution losses in Manipur are bound to be higher than that of the neighbouring state Mizoram (which has the approved distribution loss of 22.98% in 2017-18.) due to more LT distribution line length. With the present state of complex terrain, long LT distribution lines, spread LT domestic consumers the actual LT distribution losses in Manipur are higher than the commission approved distribution losses.

Hence, MSPDCL requests the Hon'ble Commission to approve the actual distribution loss of 25.87%, as shown in the Table above.

3.3 Energy Requirement

The actual energy requirement for FY 2018-19 as compared to the energy requirement approved by the Hon'ble Commission in the Tariff Order for FY 2018-19, is shown in the Table below:

Table 3: Energy Requirement for FY 2018-19 (MU)

Sl. No.	Particulars	Approved	Actuals
1	Energy Sales	626.87	596.97
2	Distribution Loss	17.72%	25.87%
3	Distribution loss Quantum	134.96	208.32
4	**Energy Requirement at Distribution Periphery for sale within the State**	**761.83**	**805.28**

MSPDCL respectfully submits that the actual energy requirement was 805.28 MU, which is slightly higher than the 761.83 MU approved by the Hon'ble Commission in its Order dated 26 March, 2019.

3.4 Energy Purchase

MSPDCL has been allocated power from various Central Generating Stations in North Eastern Region, viz., NEEPCO, NHPC, Tripura-Baramura and OTPC-Palatana, and NTPC Bongaigaon for power purchase under long term PPAs. The actual power purchase quantum and energy availability as compared to quantum approved for FY 2018-19 in the Tariff Order for FY 2018-19, are as detailed in the Table below:

Table 4: Energy Purchase for FY 2018-19 (MU)

Sl. No.	Source of Power	Approved	Actuals
A	**CGS – NEEPCO**		
1	Kopili -I HEP	62.82	74.32
2	Kopili-II HEP	6.93	6.40
3	Khandong HEP	12.85	12.86
4	Ranganadi HEP	109.18	86.73
5	Doyang HEP	17.1	17.38
6	Assam GBPP	127.62	106.01
7	AGTPP	62.67	49.87
B	**CGS – NHPC**		-
1	Loktak HEP Purchased Power	188.49	176.69
2	Loktak HEP- Free Power	74.16	69.47
C	**Others**		-
1	Baramura GBPP Unit IV and V	75.47	41.57
2	OTPC Palatana	214.06	249.20
D	**New Plants**		-
1	NTPC Bongaigaon Unit I	45.56	103.25
2	NTPC Bongaigaon Unit II	45.56	-
3	NTPC Bongaigaon Unit III	22.78	-
4	Monarchak Gas Based PP (NEEPCO)	NA	-
5	Kameng HEP Stage I	NA	-
6	Kameng HEP Stage II	NA	-
7	Para HEP	30.59	28.11
8	Tuirial HEP	NA	-
9	Lower Subansiri Stage I	NA	-
10	Lower Subansiri Stage II	NA	-
11	Renewable – Solar	0	-
12	Renewable – Non Solar	0	-
	Sub -Total	**1067.95**	**1,021.85**
	Total Purchase	**1067.95**	**1,021.85**

As can be seen from the above Table, the actual power purchase quantum in FY 2018-19 was 1021.85 MU, which is slightly lower than the approved quantum of 1067.95 MU. The reason for this deviation is due to non-availability of power or deviation in load requirement. This deviation is managed by MSPDCL by way of purchase/sell of surplus power from IEX or by availing the banking facility with other traders. Due to such deviations the actual purchase by DISCOM is slightly different as projected below:

Table 5: Energy Purchase from other sources and deviation for FY 2018-19 (MU)

Sl. No.	Source of Power	Approved	Actuals
1	**Total Purchase**	**1067.95**	**1,021.85**
2	NER Pool losses		2.72%
3	NER Pool losses		27.77
4	**Net Power Purchase**		**994.08**
5	**IEX Purchase**		**10.81**
6	Return of Banked Energy + (i/c previous year)		165.26
7	Banking to outside utilities		122.04
8	Energy Sold to IEX		130.28
9	Net Available Energy		917.830
10	UI Underdrawl		39.64
11	UI Overdrawl		16.57
12	**Net Power Available at State Periphery**		**894.760**

From above it can be seen that the net power purchase from the CGP for FY 2018-19 is 1021.85 MU. The purchase from IEX is 10.81 MU and sales is 130.28MU. After considering the IEX, UI and banking the net electricity available at the state periphery is 894.760 MU.

MSPDCL requests the Hon'ble Commission to approve the actual power purchase quantum of 1021.85 MU from CGPs for Limited provisional truing up for FY 2018-19.

3.5 Power Purchase Cost

The actual Power Purchase cost as against the power purchase cost approved in the Tariff Order for FY 2018-19 is shown in the Table below:

Table 6: Actual Power Purchase Cost for FY 2018-19

Sl. No.	Source of Power	Approved 2018-19		Actual 2018-19	
		Total Cost (Rs Cr)	Avg Rate (Rs/kWh)	Total Cost (Rs Cr)	Avg Rate (Rs/kWh)
A	**CGS – NEEPCO**				
1	Kopili -I HEP	12.38	1.97	9.87	1.33
2	Kopili-II HEP	1.39	2.006	1.05	1.64
3	Khandong HEP	3.73	2.903	2.72	2.11
4	Ranganadi HEP	36.5	3.343	21.54	2.48
5	Doyang HEP	13.74	8.035	8.72	5.02
6	Assam GBPP	46.39	3.635	44.27	4.18

7	AGTPP	16.96	2.706	18.7	3.75
B	**CGS – NHPC**				
1	Loktak HEP Purchased Power	89.75	4.762	59.87	3.39
2	Loktak HEP- Free Power	0	0		-
C	**Others**				
1	Baramura GBPP Unit IV and V	13.21	1.75	12.52	3.01
2	OTPC Palatana	81.67	3.815	79.08	3.17
D	**New Plants**				
1	NTPC Bongaigaon Unit I	24.67	5.41	97.65	9.46
2	NTPC Bongaigaon Unit II	24.67	5.41		
3	NTPC Bongaigaon Unit III	12.33	5.41		
4	Monarchak Gas Based PP (NEEPCO)				
5	Kameng HEP Stage I				
6	Kameng HEP Stage II				
7	Para HEP	16.05	5.25	14.06	5.00
8	Tuirial HEP				
9	Lower Subansiri Stage I				
10	Lower Subansiri Stage II				
11	Renewable – Solar	20.71			
12	Renewable – Non Solar	1.73			
	Sub -Total	**415.88**		**370.02**	
13	UI Over/Under drawl			-3.47	
14	IEX purchase			3.04	
15	Supplementary bills			14.83	
16	Late payment surcharge			2.81	
17	Open access charges paid for banking			8.81	
	Total	**415.88**	**3.80**	**396.05**	**3.88**

The total actual power purchase cost including UI over-drawal and under-drawal, Purchase from IEX, OA charges paid for availing banking facility etc. is around 396.05 Cr for FY 2018-19 as against the commission's approval of 415.88 Cr.

MSPDCL requests the Hon'ble Commission to approve the actual power purchase costs for FY 2018-19, as shown above.

3.6 Transmission Charges

The transmission charges include the charges paid to PGCIL, MSPCL and SLDC. The summary of transmission charges approved by the Commission and the actual charges paid by MSPDCL for FY 2018-19 is as follows:

Table 7: Transmission Charges for FY 2018-19 (Rs. Crore)

Sl. No.	Particulars	Approved	Actual
1	PGCIL Charges	58.21	42.80
2	MSPCL Charges	71.57	74.97
3	SLDC Charges	0.71	0.74
4	NRLDC Charges		6.30
	Total	**130.49**	**124.82**

MSPDCL requests the Hon'ble Commission to approve the actual Transmission Charges of Rs. 124.82 for FY 2018-19, as shown in the Table above.

3.7 Operation and Maintenance Expenses

The Operation and Maintenance (O&M) expenses comprises of Employee Expenses, Repair and Maintenance (R&M) Expenses and Administrative and General (A&G) Expenses. In the FY 2018-19, MSPDCL has incurred the O&M expenses as follows:

3.7.1 Employee Expenses

Employee Expenses includes the Basic Pay, Dearness Pay, Dearness allowances, house rent allowances, and other allowances, new pension scheme paid to the staff etc. The actual employee expenses incurred by MSPDCL in FY 2018-19 as compared with the approval in the Tariff Order for FY 2018-19 is shown in the Table below:

Table 8: Employee Expenses for FY 2018-19 (Rs. Crore)

Sl. No	Employee Category	Approved	Actuals
1	Total Employee Expenses	98.78	83.86

The actual employee expenses are lower than the employee expenses approved by the Hon'ble Commission for FY 2018-19. MSPDCL requests the Hon'ble Commission to approve the actual Employee Expenses of Rs. 83.86 Crore for FY 2018-19.

3.7.2 R&M Expenses

Repair and Maintenance (R&M) Expenses includes all expenditure incurred on the maintenance and upkeep of distribution assets. It includes the expenses on repairs and maintenance of Plant and Machinery, Transformers, Lines, cable network, Vehicles, Office equipment, etc.

The actual R&M expenses incurred in FY 2018-19 as compared to the approved expenses are as follows:

Table 9: R&M Expenses for FY 2018-19 (Rs. Crore)

Particulars	Approved	Actuals
R&M Expenses	7.27	11.70

MSPDCL requests the Hon'ble Commission to approve the actual R&M expenses of Rs. 11.70 Crore for FY 2018-19.

3.7.3 A&G Expenses

Administrative and General (A&G) Expenses includes all expenditure incurred in operating a business such as:

- Travel and conveyance expenses
- Consultancy and regulatory fees
- IT services and outsourcing cost
- Office Expenses
- Publication Expenses
- Other administration Expenses
- Telephone
- Hiring of vehicle etc.

The A&G expenses incurred by MSPDCL in FY 2018-19 is as follows:

Table 10: A&G Expenses for FY 2018-19 (Rs. Crore)

Sl. No	Particulars	Approved	Actual
1	Advertisement		0.40
2	Auditors Fee		0.01
3	Consultancy charges & Technical Fees		0.40

Sl. No	Particulars	Approved	Actual
4	Conveyance and Travels		0.22
5	JERC License Fee		0.17
6	Ex-Gratia		0.19
7	Hiring of Vehicle		0.26
8	Insurance		0.00
9	Legal Charges		0.12
10	License and Registration fee		0.00
11	Miscellaneous Expanses		1.02
12	Petrol & Oil - Vehicle		0.41
13	Oil DG set & Transformer		0.80
14	Printing and Stationary		0.06
15	Rent, Rate and Taxes		0.05
16	Telephone		0.27
17	Training Expenses		0.20
18	Vehicle running expenses		0.06
19	Outsourced Manpower - Quess		2.24
	Total	**8.94**	**6.89**

The actual A&G expenses in FY 2018-19 are significantly lower than the expenses approved in APR for FY 2018-19. MSPDCL requests the Hon'ble Commission to approve the actual A&G expenses of Rs. 6.89 Crore for FY 2018-19.

The total O&M expenses incurred in FY 2018-19 are shown in the Table below:

Table 11: Actual O&M Expenses for FY 2018-19 (Rs. Crore)

Sl. No.	Particulars	Approved	Actual
1	Employee Expenses	98.78	83.86
2	R&M Expense	7.27	11.70
3	A&G Expense	8.94	6.89
	Total	**114.99**	**102.45**

The actual O&M expenses are thus, lower than the O&M expenses approved by the Hon'ble Commission in the Tariff Order for FY 2018-19. MSPDCL requests the Hon'ble Commission to approve the actual O&M expenses of **Rs. 102.45 Crore** for FY 2018-19.

3.8 Capitalisation

MSPDCL undertakes capital expenditure to meet the growing demand for electricity in the State and for system augmentation and strengthening. MSPDCL receives significant grant from the State Government for creation of capital asset, as well as consumer contribution for capital works, with the balance funding sourced from loans. Details of actual capitalization achieved in FY 2018-19 vis-à-vis the capitalisation approved by the Hon'ble Commission is shown in the Table below:

Table 12: Capitalisation for FY 2018-19 (Rs. Crore)

Sl. No	Name of the Scheme	Approved	Actuals
1	RAPDRP		49.50
Total		**304.33**	49.50

MSPDCL requests the Hon'ble Commission to kindly approve the actual capitalization of Rs. 49.50 Crore for FY 2018-19.

3.9 Interest on Working Capital

The interest on working capital is calculated as interest incurred on operation and maintenance expenses for one month, Maintenance spares at one (1) per cent of the historical cost escalated at 6% from the date of commercial operation, Receivables equivalent to one (1) month of the expected revenue from charges for use of Distribution Wires at the prevailing tariffs and Amount, if any, held as security deposits under clause (b) of sub- section (1) of Section 47 of the Act from Distribution System Users except the security deposits held in the form of Bank Guarantees.

The computation of normative Interest on Working Capital (IoWC) for MSPDCL for FY 2018-19, is shown in the Table below:

Table 13: Interest on Working Capital for FY 2018-19 (Rs. Crore)

Sl. No.	Particulars	Approved	Actuals
1	O&M expenses for 1 month	9.58	8.54
2	Maintenance spares @ 1% of GFA	7.87	7.62

Sl. No.	Particulars	Approved	Actuals
3	Receivables equivalent to one month of expected revenue at prevailing tariffs	25.61	20.25
4	Consumer Security Deposit		14.07
	Total	**43.06**	**22.35**
	SBAR as on 01.04.2017	13.45%	13.45%
	Interest on Working Capital	**5.79**	**3.01**

MSPDCL requests the Hon'ble Commission to approve the IoWC of **Rs 3.01 Crore** for FY 2018-19.

3.10 Gross Fixed Assets and Depreciation

The closing balance of Gross Fixed Asset (GFA) for FY 2017-18 has been considered as the opening balance of GFA for FY 2018-19. The depreciation has been computed under straight-line Method, at the rates specified in the JERC (MYT) Regulations, 2014, on the GFA in use at the beginning of the year and addition in assets during FY 2018-19. The Depreciation expenses for FY 2018-19 is shown in the Table below:

Table 14: Depreciation for FY 2018-19 (Rs. Crore)

Sl. No.	Particulars	Approved	Actual
1	Opening GFA	832.66	762.28
2	Addition during the Year	304.33	49.50
3	Retirement	0	0.00
4	Closing GFA	1136.99	811.78
5	Average GFA	984.86	787.03
6	Average Rate of Depreciation	2.42%	2.42%
7	Depreciation	23.83	19.05
8	**10% of Gross Depreciation**	**0.24**	1.90

MSPDCL respectfully submits that since 10% of the capital cost of every scheme is financed by MSPDCL, either through loan or equity, depreciation has been claimed equal to 10% of Gross Depreciation, as depreciation cannot be claimed on assets funded by Government Grants and Consumer Contribution.

MSPDCL requests the Hon'ble Commission to approve the Depreciation of Rs. 1.90 Crore, as sought by MSPDCL.

3.11 Interest on Loan

The major part of capital expenditure undertaken by MSPDCL is funded by the State Government's grants and consumer contribution. However, in addition to these sources of funds, MSPDCL has also taken a significant amount of loan from REC for RAPDRP-B Project and RGGVY project. The repayment of loans during the year has been considered equal to the depreciation claimed for the year, in accordance with the JERC (MYT) Regulations, 2014, and the repayment has been considered proportionately based on the opening loan balance. The details of loans with the computation of Interest on loan is shown in the Table below:

Table 15: Interest on Loan for FY 2018-19 (Rs. Crore)

Sl. No.	Particulars	REC 1	REC 2	Total
1	Opening Loan	38.58	14.67	53.25
2	Addition during the year	0	0	0.00
3	Repayment during the year	3.98	0	3.99
4	Closing Loan	34.59	14.67	49.26
5	Average Loan	36.58	14.67	51.26
6	Rate of Interest	11.70%	11.70%	0.23
7	Interest & Finance Charges	4.66	1.66	6.33
8	Interest on CSD			0.00
	Total Interest	**4.66**	**1.67**	**6.33**

MSPDCL requests the Hon'ble Commission to kindly approve the actual interest on loan of **Rs. 6.33 Crore** for FY 2018-19.

3.12 Return on Equity

As there is no fresh equity infusion by MSPDCL in the FY 2018-19, the Return on Equity (RoE) for FY 2018-19 is considered same as that approved by the Hon'ble Commission in its Tariff Order for FY 2017-18. The RoE for FY 2018-19 is shown in the Table below:

Table 16: Return on Equity for FY 2018-19 (Rs. Crore)

Sl. No.	Particulars	Approved	Actual
1	Return on Equity	1.95	1.95

MSPDCL requests the Hon'ble Commission to approve the Return on Equity of **Rs. 1.95** Crore for FY 2018-19.

3.13 Write off of Bad Debts

MSPDCL has considered Nil Write-off of Bad Debts for FY 2018-19, and requests the Hon'ble Commission to approve the same.

3.14 Non-Tariff Income

The Hon'ble Commission approved Non-Tariff Income of Rs. 5.40 Crore in the Tariff Order for FY 2018-19. The actual Non-Tariff Income earned by MSPDCL in FY 2018-19 was **Rs. 6.1303 Crore**, as shown in the Table below:

Table 17: Non-Tariff Income for FY 2018-19 (Rs. Crore)

Sl. No	Particulars	Approved	Actuals
1	Interest from Bank		4.7421
2	3.75% Agency Charge		0.6952
3	Miscellaneous Receipt		0.5930
4	Fees from Tender forms		0.1
Total		**5.40**	**6.1303**

MSPDCL requests the Hon'ble Commission to approve the actual Non-Tariff Income of **Rs. 6.1303** Crore for FY 2018-19.

3.15 Aggregate Revenue Requirement

Based on the above component-wise expenses, the Aggregate Revenue Requirement computed for FY 2018-19 by MSPDCL against the figures approved by the Commission in the Tariff Order for FY 2018-19, is given in the Table below:

Table 18: Aggregate Revenue Requirement for FY 2018-19 (Rs. Crore)

Sl. No	Particulars	Approved	Actuals
1	Fuel Cost		
2	Power Purchase Cost	415.88	396.05
3	Inter-State Transmission Charges	58.21	42.80
4	Intra-State Transmission Charges	71.57	74.97
5	SLDC & NRLDC Charges	0.71	7.04
6	Employee Cost	98.78	83.86
7	R&M Expenses	7.27	11.70
8	Administration and General Expenses	8.94	6.89
9	Depreciation	0.24	1.90
10	Interest and Finance Charges	5.94	6.33
11	Interest on Working Capital	5.79	3.01
12	Write off of bad debts		0.00
13	Return on Equity	1.95	1.95
14	Add: Income Tax		
14	Less: Non-Tariff Income	5.4	6.13
15	(Surplus)/Deficit on true up for FY 2014-15		
16	**Net ARR**	**669.89**	**630.37**

The ARR for FY 2018-19 is **Rs. 630.37** Crore, which is very close to the ARR of Rs. 669.89 Crore approved by the Hon'ble Commission for FY 2018-19 in its Tariff Order dated 26 March, 2019. MSPDCL requests the Hon'ble Commission to approve the same.

3.16 Revenue from sale of power

The revenue from sale of power to consumers approved after review for FY 2018-19 was Rs. 369.76 crore. The actual revenue from sale of power to consumers in FY 2018-19 was Rs. 243.01 crore and the revenue from sale of surplus power was Rs. 54.96 crore. Thus, the total revenue earned by MSPDCL in FY 2018-19 was **Rs. 297.97** crore, and MSPDCL requests the Hon'ble Commission to approve the same.

3.17 Revenue Gap

The Revenue Gap of MSPDCL for FY 2018-19 as against the Revenue Gap approved by the Hon'ble Commission in the Tariff Order for FY 2018-19 is shown in the Table below:

Table 19: Revenue Gap for FY 2018-19 (Rs. Crore)

Sl. No	Particulars	Approved	Actuals
1	Net ARR	669.89	630.37
2	Total Revenue	-	297.97
3	State Government Revenue Subsidy	-	220.12
4	Unmet Revenue Gap	-	**112.29**

As can be seen from the above Table, the Unmet Revenue Gap for FY 2018-19 is Rs. 112.29 Crore after considering state Government subsidy of Rs 220.12 Crore. The actual revenue gap can only be finalized during the actual Truing up process for FY 2018-19, and MSPDCL shall seek pass through of such amounts with associated carrying cost and sharing of efficiency gains and losses at that time.

4. Chapter 4: Annual Performance Review (APR) for FY 2019-20, Aggregate Revenue Requirement (ARR) and Tariff Determination for FY 2020-21

The Petitioner humbly submits that the present APR and ARR projections is based on actual expenses of FY 2018-19 and first six-month data available for FY 2019-20. The comparison of the projected expenses and revenue with the expenses and revenue considered by the Hon'ble Commission in the ARR of FY 2019-20 in the JERC tariff Order 20 of 2019 dated 26 March 2019 (henceforth referred as 'Approved' order with reference to FY 2019-20), and ARR for FY 2020-21 in the JERC tariff Order 1 of 2018 dated 12 March 2018 (henceforth referred as 'Approved' order with reference to FY 2020-21) has been resented. However, the Petitioner requests the Hon'ble Commission to review the expenses and revenue for FY 2019-20 and FY 2020-21 based on the trend observed as per actual data. The values presented in those past ARR orders were based on old data and may not capture the present condition of the Petitioner.

4.6 Energy Sales

MSPDCL caters to a diverse consumer mix comprising LT domestic, LT commercial, HT commercial, LT Industry, HT Industry and agriculture consumers. LT Domestic category is the largest consumer category and comprises around 65% of the total sales of MSPDCL. The number of consumers in this category has increased rapidly in the recent years on account of the rural electrification schemes such as RGGVY, Saubhagya, etc. The actual category-wise energy sales as compared to the energy sales approved by the Hon'ble Commission for FY 2018-19 is given in the Table below:

Table 20: Category-wise Energy Sales (MU) for FY 2019-20 and FY 2020-21

		FY 2019-20			FY 2020-21	
Sl. No.	**Category**	**App.**	**Six Months Actual**	**Revised Proj.**	**App.**	**Revised Proj.**
A	**LT Supply**					
1	Kutir Jyoti	20.96	2.02	3.72	17	3.88
2	LT Domestic	386.83	196.05	399.40	391	417.37
3	Commercial LT	45.43	32.37	58.54	48	61.18

		FY 2019-20			FY 2020-21	
Sl. No.	**Category**	**App.**	**Six Months Actual**	**Revised Proj.**	**App.**	**Revised Proj.**
4	Cottage and Small Industry	20	11.18	20.57	21	21.49
5	Public Lighting	5.08	2.06	3.79	5	3.96
6	Public Water-works	2.2	0.71	1.31	2	1.37
7	Irrigation and Agriculture	1.27	0.65	1.20	1.25	1.25
	LT Supply Sub Total	**481.77**	**245.04**	**488.52**	**485.25**	**510.50**
B	**HT Supply**					
1	Commercial	6.06	16.62	19.67	7	20.55
2	Medium Industry	4.1	4.44	4.17	4	4.36
3	Large Industry	6	4.49	7.77	6	8.12
4	Bulk Supply	114	41.63	81.73	123	85.41
5	Public Water-works	18.66	12.28	21.20	18	22.15
6	Irrigation and Agriculture	0.85	0.42	0.78	0.8	0.81
	HT Supply Sub Total	**149.67**	**79.88**	**135.31**	**158.8**	**141.40**
	Total	**631.44**	**324.92**	**623.83**	**644.05**	**651.91**

The actual energy sold by MSPDCL in FY 2018-19 was 596.97 MU. The commission has approved the energy sales of 631.44 MU for FY 2019-20. Based on the actual sales of first six months (i.e. up to 31 September 2019) the revised projection of energy sales by MSPDCL for FY 2019-20 is 623.83 MU. As there is no major increase foreseen in any of the consumer category, it is assumed that the growth in energy sales for FY 2019-20 and 2020-21 will be stable with 4.5% increase over the actual sales in FY 2018-19. The lower rate of sales increase will also be due to the adoption of LED lighting and solar power.

Accordingly, MSPDCL requests the Hon'ble Commission to approve the total energy sales of **623.83 MU** for FY 2019-20 and **651.91 MU** for FY 2020-21.

4.7 Distribution Loss and Energy Balance

Projected distribution loss for FY 2019-20 and 2020-21 is estimated based on the actual distribution loss achieved for FY 2018-19, and the losses trajectory approved by the Hon. Commission for the MYT control period. Based on the estimated sales for the current and ensuing financial years, estimated interstate and intra states losses, power purchase requirement and surplus sales have been projected. The estimation of power procurement is done in the subsequent section. The estimated distribution loss and energy balance for current and ensuing financial year is as follows:

Table 21: Proposed Distribution Loss and Energy Balance for FY 2019-20 and FY 2020-21

Particulars	Unit	Actual for 2018-19 Prop true up	Approved for FY 2019-20	Proposed for FY 2019-20	Approved for FY 2020-21	Proposed for FY 2020-21
Total Sales to Consumers	MU	596.97	631.44	614.88	644.05	651.91
Distribution Loss	%	25.87%	15.00%	25.40%	14.20%	24.50%
Distribution loss	MU	208.32	111.43	209.36	106.59	211.55
Total energy requirement at distribution periphery	MU	805.28	742.87	824.23	750.64	863.45
Intra state transmission losses	%	10.00%	8.50%	10.00%	2.80%	10.00%
Intra state transmission losses	MU	89.48	69.01	91.58	21.62	95.94
Energy Requirement at state periphery after grossing us intrastate loss	MU	894.76	811.88	915.82	772.26	959.39
Interstate transmission loss	%	2.72%	2.85%	2.85%	2.60%	2.85%
		25.00	23.82	26.87	20.61	28.14
Energy Requirement after grossing up interstate losses	MU	919.76	835.70	942.68	792.88	987.53
Estimated power purchase	MU	1021.85	1131.37	1025.73	1163.82	1165.24
Surplus Power available for sale after grossing up interstate loss	MU	99.32	287.25	80.69	361.30	172.64

MSPDCL has achieved the distribution loss of 25.87% in FY 2018-19. For the FY 2019-20, Hon. Commission has approved the distribution loss of 15.00%. MSPDCL proposed the distribution loss of 25.40% for FY 2019-20. Also in the MYT tariff order Hon. Commission has approved the distribution loss of 14.20% for FY 2020-21. MSPDCL proposed the distribution loss of 24.5% for FY 2020-21. MSPDCL requests

Hon. Commission to consider the proposed distribution considering the high LT network and low density of consumers.

Based on the projected sales to consumers, projected distribution, interstate and intra state losses, projected power purchase the energy balance is calculated and the surplus power available for banking / surplus sale is estimated and MSPDCL request the Hon. Commission to approve the same.

4.8 Energy Purchase

MSPDCL has been allocated power from various Central Generating Stations in North Eastern Region, viz., NEEPCO, NHPC, Tripura-Baramura and OTPC-Palatana, and NTPC Bongaigaon for power purchase under long term PPAs. The proposed power purchase for FY 2019-20 and 2020-21 has been projected in the MYT order based on the annual allocation of different power projects. MSPDCL is required to purchase the contracted quantum of power from different sources as projected in MYT.
However, the actual power purchase quantum is likely to vary based on the energy availability, hydrology, operational conditions of the plants etc. While estimating the power purchase for FY 2019-20, actual power purchase during the first six months is considered along with the availability of plants in next six months. Further, based on the actual power procurement for FY 2018-19, year on year growth has been considered based on the planned allocation for projecting the power purchase for current and ensuing financial year. Accordingly, the revised energy purchase has been proposed. The approved and proposed energy purchase for FY 2019-20 and FY 2020-21 is detailed in the Table below:

Table 22: Energy Purchase for FY 2019-20 and FY 2020-21 (MU)

Sl. No.	Source of Power	FY 2018-19	FY 2019-20			FY 2020-21	
		Actual	App.	Six Months	Prop.	App.	Prop.
A	**CGS – NEEPCO**						
1	Kopili -I HEP	74.32	65.41	50.594	76.66	67.35	78.88
2	Kopili-II HEP	6.40	7.24	5.296	6.38	7.47	6.82
3	Khandong HEP	12.86	13.42	9.396	12.87	13.85	13.24
4	Ranganadi HEP	86.73	115.12	76.453	99.29	119.58	102.17
5	Doyang HEP	17.38	18.13	7.079	8.14	18.9	18.90
6	Assam GBPP	106.01	131.75	44.38	87.02	134.85	89.54
7	AGTPP	49.87	64.55	24.209	53.80	65.95	55.36
B	**CGS – NHPC**						0.00

Sl. No.	Source of Power	FY 2018-19	FY 2019-20			FY 2020-21	
		Actual	App.	Six Months	Prop.	App.	Prop.
1	Loktak HEP Purchased Power	176.69	194.1	59.84	90.67	198.31	198.31
2	Loktak HEP- Free Power	69.47	76.37	23.512	35.62	78.02	78.02
C	**Others**						0.00
1	Baramura GBPP Unit IV and V	41.57	77.31	32.814	76.31	78.69	78.52
2	OTPC Palatana	249.20	221.42	125.425	256.68	226.94	249.20
D	**New Plants**						0.00
1	NTPC Bongaigaon Unit I	103.25	48.85	96.338	185.27	51.31	153.93
2	NTPC Bongaigaon Unit II		48.85			51.31	0.00
3	NTPC Bongaigaon Unit III		48.85			51.31	0.00
4	Monarchak Gas Based PP (NEEPCO)		0				0.00
5	Kameng HEP Stage I		0				0.00
6	Kameng HEP Stage II		0				0.00
7	Para HEP	8.11	0	27.047	37.05		38.13
8	Tuirial HEP		0				0.00
9	Lower Subansiri Stage I		0				0.00
10	Lower Subansiri Stage II		0				0.00
11	Renewable – Solar		0				1.42
12	Renewable – Non Solar		0				2.80
	Sub -Total	**1,021.85**	**1131.37**	**582.365**	**1025.73**	**1163.82**	1165.24
	Total Purchase	**1,021.85**	**1131.37**	**582.37**	**1,025.73**	**1,163.82**	1,165.24

Apart from the above proposed sources for power procurement, MSPDCL requires to purchase/sell surplus power from IEX or required to use the banking facility to manage the deviation in power availability due to non-availability of power from hydro power plant due to hydrology failure or deviation in load requirement. Such deviations are real-time based on the demand and supply situations of DISCOM and CGPs hence such deviations cannot be estimated for current and ensuing financial year at this time. The MSPGCL proposed to manage such deviations within the available surplus power.

MSPDCL requests the Hon'ble Commission to approve the proposed power purchase quantum of 1025.73 MU and 1165.24 MU for FY 2019-20 and FY 2020-21.

4.9 Power Purchase Cost

The power purchase cost has been estimated and allowed in the Hon. Commissions MYT tariff order. The cost of power purchase from CGPs includes the fix and variable cost. The fix cost component is fixed irrespective of the energy drawl. The variable cost component depends on the approved tariff by CERC, actual energy drawl and the additional cost permitted due to change in fuel cost. The effective tariff of these sources is slightly varying from the MYT approved figures. Hence, in order to estimate the Power Purchase cost for current and ensuing financial year, 3% escalation in the effective tariff arrived from the actual purchase for FY 2018-19 is taken to estimate the power purchase cost for FY 2019-20 and FY 2020-21. In the case of NTPC Bongaigaon the proposed cost was worked out on the basis of fix and variable cost based on planned power procurement. The proposed power purchase cost is shown in the Table below:

Table 23: Power Purchase Cost for FY 2019-20 and 2020-21 (Total Cost in Rs. Cr, Avg. Tariff / rate in Rs/kWh)

Sl. No.	Source of Power	2018-19 Actual		Approved 19-20		Six Months 19-20		Proposed 19-20		Approved 20-21		Proposed 20-21	
		Total Cost	Avg. Rate	Total Cost	Avg. Rate	Total Cost	Avg. Rate	Total Cost	Avg. Rate	Total Cost	Avg. Rate	Total Cost	Avg. Rate
A	**CGS – NEEPCO**												
1	Kopili -I HEP	9.87	1.33	7.97	1.22	5.93	1.17	10.49	1.37	14.64	2.17	11.11	1.41
2	Kopili-II HEP	1.05	1.64	1.06	1.46	0.73	1.38	1.08	1.69	1.65	2.21	1.19	1.74
3	Khandong HEP	2.72	2.11	2.41	1.8	1.68	1.79	2.80	2.18	4.43	3.2	2.97	2.24
4	Ranganadi HEP	21.54	2.48	25.22	2.19	14.36	1.88	25.40	2.56	44.07	3.69	26.92	2.63
5	Doyang HEP	8.72	5.02	8.01	4.42	3.88	5.48	4.20	5.17	16.75	8.86	10.06	5.32
6	Assam GBPP	44.27	4.18	49.74	3.77	22.87	5.15	37.43	4.30	54.05	4.01	39.67	4.43
7	AGTPP	18.7	3.75	22.99	3.56	11.16	4.61	20.78	3.86	19.67	2.98	22.02	3.98
B	**CGS – NHPC**							0.00	0.00			0.00	0.00
1	Loktak HEP Purchased Power	59.87	3.39	64.89	3.34	24.29	4.06	31.64	3.49	104.1	5.25	71.29	3.59
2	Loktak HEP- Free Power		-	0	0	0.00	0.00	0.00	0.00			0.00	0.00
C	**Others**							0.00	0.00			0.00	0.00
1	Baramura GBPP Unit IV and V	12.52	3.01	14.2	1.84	9.88	3.01	23.67	3.10	15.18	1.93	25.09	3.20
2	OTPC Palatana	79.08	3.17	72.65	3.28	40.75	3.25	83.90	3.27	95.46	4.21	83.90	3.37

Sl. No .	Source of Power	2018-19 Actual		Approved 19-20		Six Months 19-20		Proposed 19-20		Approved 20-21		Proposed 20-21	
		Total Cost	Avg. Rate	Total Cost	Avg. Rate	Total Cost	Avg. Rate	Total Cost	Avg. Rate	Total Cost	Avg. Rate	Total Cost	Avg. Rate
D	**New Plants**							0.00	0.00			0.00	0.00
1	NTPC Bongaigaon Unit I	97.65	9.46	27.77	5.68	76.36	7.93	180.48	9.74	30.63	5.97	140.72	9.14
2	NTPC Bongaigaon Unit II			27.77	5.68			0.00	0.00	30.63	5.97	0.00	0.00
3	NTPC Bongaigaon Unit III			27.77	5.68			0.00	0.00	32.16	6.27	0.00	0.00
4	Monarchak Gas Based PP (NEEPCO)			0				0.00	0.00			0.00	0.00
5	Kameng HEP Stage I			0				0.00	0.00			0.00	0.00
6	Kameng HEP Stage II			0				0.00	0.00			0.00	0.00
7	Para HEP	14.06	5.00	0		13.52	5.00	19.09	5.15			20.23	5.31
8	Tuirial HEP			0				0.00	0.00			0.00	0.00
9	Lower Subansiri Stage I			0				0.00	0.00			0.00	0.00
10	Lower Subansiri Stage II			0				0.00	0.00			0.00	0.00
11	Renewable – Solar			23.12				0.00	0.00	25.12		0.26	0.00
12	Renewable – Non Solar			2.81				0.00	0.00	2.19		1.63	0.00
	Total Purchase	370.02	3.62	378.36	3.34	225.40	3.87	440.94	3.34	490.73	4.22	457.06	3.92
13	UI Over/Under drawl	-3.47											
14	IEX purchase	3.04											
15	Supplementary bills	14.83						15.28				33.67	
16	Late payment surcharge	2.81											
17	Open access charges paid for banking	8.81											
	Total	**396.05**	**3.84**	**378.36**	**3.34**	**225.40**	**3.87**	**456.21**	**4.45**			**490.80**	**4.21**

Apart from the total power purchase cost, MSPDCL is required to pay charges towards UI over-drawal and under-drawal, Purchase from IEX, OA charges paid for availing banking facility, supplementary bills etc. Such charges were 26.03 Cr for FY 2018-19. However, MSPDCL considers around 15 Cr for FY 2019-20. The charges for UI over-drawal and under-drawal, Purchase from IEX, OA charges paid for availing banking facility, supplementary bills are considered as 33.67 Cr for FY 2020-21. The Hence MSPDCL has proposed the total power purchase cost of Rs.456. 21 Cr and Rs 490.73 Cr for FY 2019-20 and FY 2020-21.

MSPDCL requests the Hon'ble Commission to approve the proposed power purchase costs of **Rs.456. 21 Cr** and **Rs 490.73 Cr** for FY 2019-20 and FY 2020-21 respectively.

4.10 Transmission Charges

The transmission charges include the charges paid to PGCIL, MSPCL and SLDC charges. The summary of transmission charges paid by MSPDCL for FY 2018-19, charges approved by Hon. Commission for current and ensuing financial years along with the proposed charges are presented in the following table. The PGCIL charges for current and ensuing FY are projected as 49.22 Cr and 61.525 Cr respectively for FY 2019-20 and 2020-21 respectively which are 15% and 25% higher on year on year basis. MSPCL charges for current and ensuing year has been considered based on their draft ARR proposal. The SLDC and NRLDC charges are considered as 5% and 5.72% higher on year on year basis on the actual charges for FY 2018-19.

Table 24: Transmission Charges for FY 2019-20 and FY 2020-21 (Rs. Crore)

		2018-19		2019-20		2020-21	
Sl. No.	**Particulars**	**App.**	**Actual**	**App.**	**Proposed**	**App.**	**Proposed**
1	PGCIL Charges	58.21	42.80	61.12	49.22	64.18	61.53
2	MSPCL Charges	71.57	74.97	85.68	85.68	97.30	91.34
3	SLDC Charges	0.71	0.74	0.71	0.78	0.79	0.82
4	NERLDC Charges		6.30		6.66		7.04
	Total	**58.92**	**124.82**	**147.51**	**142.34**	**162.27**	**160.72**

MSPDCL requests the Hon'ble Commission to approve the proposed Transmission Charges of **Rs. 142.34 Crore** and **Rs. 160.72 Crore** for FY 2019-20 and FY 2020-21.

4.11 Operation and Maintenance Expenses

The Operation and Maintenance (O&M) expenses comprises of Employee Expenses, Repair and Maintenance (R&M) Expenses and Administrative and General (A&G) Expenses.

For the purpose of APR and ARR for FY 2019-20 and FY 2020-21, MSPDCL has proposed the O&M Expenses as follows:

Table 25: O&M Expenses for FY 2019-20 and FY 2020-21 (Rs. Crore)

Sr. No	O&M Expenses	Actual 2018-19	Approved 19-20	Six Months 2019-20	Proposed 19-20	Approved 20-21	Proposed 20-21
1	Employee Expenses	83.86	106.68	35.90	83.00	112.78	113.48
2	R&M Expense	11.70	7.69	8.20	12.36	8.13	13.07
3	A&G Expense	6.89	9.45	3.64	7.29	9.99	9.71
	Total	**102.45**	**123.82**	**47.74**	**102.65**	**130.90**	**136.26**

The employee cost for FY 2019-20 has been proposed based on the actual expenses incurred in the first six months. The employee cost for 2019-20 has been considered as 83 Cr which is lesser than the actual for 2018-19 due to reduction in the manpower. The employee expenses for 2020-21 has been projected as 5.72 % more than the expenses for the current financial year. Further, there is likely addition of manpower in FY 2020-21 and hence 10% of the current financial years cost has been considered towards the additional manpower. Over and above, MSPDCL will have to pay the 7th pay arrears which are in the range of 21% of employee cost incurred in FY 2019-20.

In the case of R&M and A&G expenses, the projections have made with 5.72% escalation on the actual expenses incurred in FY 2018-19. Further for FY 2020-21, additional A&G expenses of 2 Cr have been considered for the additional A&G costs like prepaid metering software expenses, franchisee fees, Energy Audit, Vigilance, flying squad, consumer verification, energy police stations, SIM card, Modem, DCDR Server maintenance charges, Online vending charges, VPN Communication Charges etc.

Accordingly, MSPDCL submits Hon'ble Commission to approve the proposed O&M costs of **Rs. 102.65 Crore** and **Rs. 136.26 Crore** for FY 2019-20 and 2020-21 respectively.

4.12 Capitalisation

MSPDCL undertakes capital expenditure to meet the growing demand for electricity in the State and for system augmentation and strengthening. MSPDCL receives significant grant from the State Government for creation of capital asset, as well as consumer contribution for capital works, with the balance funding sourced from loans.

The details of actual capitalization achieved in FY 2018-19 and proposed capitalisation for FY 2019-20 and FY 2020-21, is shown in the Table below:

Table 26: Capitalisation for FY 2019-20 and FY 2020-21 (Rs. Crore)

Particulars	2018-19	2019-20	2020-21
Opening balance of CWIP	1033.72	1115.17	938.54
Addition of CWIP	130.95	80.57	71.10
Capitalization during the year	**49.50**	**257.20**	**32.22**
Closing balance of CWIP	1115.17	938.54	977.42

MSPDCL requests the Hon'ble Commission to kindly approve the proposed capitalization of **Rs. 257.20 Crore** and **Rs 32.22 Crore** for FY 2019-20 and FY 2020-21.

4.13 Interest on Working Capital

Interest on the working capital has been projected for FY 2019-20 and 2020-21 as follows:

Table 27: Interest on Working Capital for FY 2019-20 and FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	Actual for FY 2018-19	Proposed for FY 2019-20	Proposed for FY 2020-21
1	O&M expenses for 1 month	8.54	8.55	11.35
2	Maintenance spares @ 1% of GFA	7.62	8.12	10.69
3	Receivables equivalent to one month of expected revenue at prevailing tariffs	20.25	31.37	35.66
4	Receivables equivalent to one month of expected revenue at prevailing tariffs	14.07	14.88	15.63
	Total	**22.35**	**33.16**	**42.08**
	SBAR as on 01.04.2018	13.45%	13.45%	13.45%
	Interest on Working Capital	**3.01**	**4.46**	**5.66**

While estimating the interest on working capital the proposed O&M expenses of one month, 1% of proposed GFA as maintenance spares, one month's receivable at existing tariff and accrued security deposit as on 1 April of respective rear has been considered. The Security deposit for FY 2020-21 has been estimated as 5% higher than that of FY 2019-20.

MSPDCL requests the Hon'ble Commission to approve the IoWC of **Rs 4.46 Crore** and **Rs 5.66 Crore** for FY 2019-20 and FY 2020-21 respectively.

4.14 Gross Fixed Assets and Depreciation

The closing balance of Gross Fixed Asset (GFA) for FY 2018-19 has been considered as the opening balance of GFA for FY 2019-20. The depreciation has been computed under straight-line Method, at the rates specified in the JERC (MYT) Regulations, 2014, on the GFA in use at the beginning of the year and addition in assets during FY 2019-20 and FY 2020-21. The Expenses towards depreciation for FY 2019-20 and 2020-21 is shown in the Table below:

Table 28: Depreciation for FY 2019-20 and FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	Actual 2018-19	Projected for 2019-20	Projected for 2020-21
1	Opening GFA	762.28	811.78	1068.98
2	Addition during the Year	49.50	257.20	281.83
3	Retirement			
4	Closing GFA	811.78	1068.98	1350.81
5	Average GFA	787.03	940.38	1209.90
6	Average Rate of Depreciation	2.42%	2.42%	2.42%
7	Depreciation	19.05	22.76	29.28
8	**10% of Gross Depreciation**	**1.90**	**2.28**	**2.93**

MSPDCL respectfully submits that since 10% of the capital cost of every scheme is financed by MSPDCL, either through loan or equity, depreciation has been claimed equal to 10% of Gross Depreciation.

MSPDCL requests the Hon'ble Commission to approve the Depreciation of **Rs. 2.28 and Rs. 2.93 Crore**, for FY 2019-20 and FY 2020-21 respectively.

4.15 Interest on Loan

The major part of capital expenditure undertaken by MSPDCL is funded by the State Government's grants and consumer contribution. However, in addition to these sources of funds, MSPDCL has also taken a significant amount of loan from REC for RAPDRP-B Project and RGGVY project. The repayment of loans during the year has been considered equal to the depreciation claimed for the year, in accordance with the JERC (MYT) Regulations, 2014, and the repayment has been considered proportionately based on the opening loan balance. The details of loans with the computation of Interest on loan is shown in the Table below:

Table 29: Interest on Loan for FY 2019-20 and 2020-21

FY 2019-20 (Rs. Crore)

Sl. No.	Particulars	REC 1	REC 2	Total
1	Opening Loan	34.592	14.67	49.26
2	Addition during the year	0	0	0.00
3	Repayment during the year	3.988	0	3.99
4	Closing Loan	30.604	14.67	45.27
5	Average Loan	32.598	14.67	47.27
6	Rate of Interest	11.70%	10.20%	0.22
7	Interest & Finance Charges	4.252	1.83	6.08
8	Interest on CSD			0.00
	Total Interest	**4.252**	**1.83**	**6.08**

FY 2020-21 (Rs Crore)

Sl. No.	Particulars	REC 1	REC 2	Total
1	Opening Loan	30.604	14.67	45.27
2	Addition during the year	0	0	0.00
3	Repayment during the year	3.988	0	3.99
4	Closing Loan	26.616	14.67	41.29
5	Average Loan	28.61	14.67	43.28
6	Rate of Interest	11.70%	11.70%	0.23
7	Interest & Finance Charges	4.140	2	6.14
8	Interest on CSD			0.00
	Total Interest	**4.140**	**2.00**	**6.14**

MSPDCL requests the Hon'ble Commission to kindly approve the interest on loan as **Rs 6.08 Crore** and **Rs. 6.14 Crore** for FY 2019-20 and FY 2020-21 respectively.

4.16 Return on Equity

MSPDCL has considered the Return on Equity (RoE) for FY 2019-20 and FY 2020-21 same as approved by the Hon'ble Commission in its Tariff Order. MSPDCL requests the Hon'ble Commission to approve the Return on Equity of **Rs. 1.95 Crore** for FY 2019-20 and FY 2020-21.

4.17 Write off of Bad Debts

MSPDCL has considered Rs 3 crore as Write-off of Bad Debts for FY 2019-20 and 2020-21, and requests the Hon'ble Commission to approve the same.

4.18 Non-Tariff Income

The Non-Tariff Income for FY 2018-19 has been 6.13 Crore. Over and above this 5% growth has been considered for FY 2019-20 and 2020-21 and accordingly the non-tariff income has been proposed as shown in the table below:

Table 30: Non-Tariff Income for FY 2019-20 and FY 2020-21 (Rs. Crore)

Sr.No.	Particulars	Actual for 2018-19	Proposed for 2019-20	Proposed for 2020-21
	Non-Tariff Income	6.13	6.44	6.76

MSPDCL requests the Hon'ble Commission to approve the actual Non-Tariff Income of **Rs. 6.44 Crore** and **Rs 6.76 Crore** for FY 2019-20 and FY 2020-21.

4.19 Aggregate Revenue Requirement

Based on the above component-wise expenses, the Aggregate Revenue Requirement computed for FY 2019-20 and FY 2020-21 by MSPDCL against the figures approved by the Commission in the Tariff Order for FY 2018-19, is given in the Table below:

Table 31: Aggregate Revenue Requirement for FY 2019-20 and FY 2020-21 (Rs. Crore)

	Particulars	Actual	App.	APR	App.	ARR
		2018-19	2019-20	2019-20	2020-21	2020-21
1	**Power Purchase or Energy Available (MU)**	1021.85	1099.13	1025.73	1163.82	1165.24
2	**Sale of Power (MU)**	596.97	631.44	623.83	644.05	651.91
3	**Distribution Loss (%)**	25.87%	15.00%	25.40%	14.20%	24.50%
A	**Expenditure**					
1	Cost of power purchase	396.05	378.36	456.21	490.73	490.73
2	Inter-State Transmission charges	42.80	61.12	49.22	64.18	61.53
3	Intra-state Transmission charges	74.97	85.68	85.68	97.30	91.34
4	SLDC & NERLDC Charges	7.04	0.71	7.44	0.79	7.86
5	Wheeling charges payable to other distribution licensee	0.00	0.00	0.00	0.00	0.00
6	O&M Expenses	102.45	123.82	102.65	130.90	136.26
	Employee Expenses	*83.86*	*106.68*	*83.00*	*112.78*	*113.48*
	R&M Expense	*11.70*	*7.69*	*12.36*	*8.13*	*13.07*
	A&G Expense	*6.89*	*9.45*	*7.29*	*9.99*	*9.71*
7	Depreciation	1.90	0.31	2.28	0.38	2.93
8	Advance against depreciation	0.00	0.00	0.00	0.00	0.00
9	Interest on Loan	6.33	5.17	6.08	4.24	6.14
10	Interest on Working Capital	3.01	9.01	4.46	7.35	5.66
11	Bad Debt		3	**3**	**3**	3
	A: Total Cost	**634.55**	**667.17**	**717.02**	**798.87**	**805.44**
B	Add: RoE	**1.95**	**1.95**	**1.95**	**1.95**	1.95
	Add: Income Tax	**0**	**0**	**0**	**0**	0
	B: Total	**1.95**	**1.95**	**1.95**	**1.95**	1.95
	Total ARR : A+B	**636.50**	**669.12**	**718.97**	**800.82**	**807.39**
C	Less: Non-Tariff Income	6.13	5.40	6.44	0.43	6.76
	Income from other business allocated to Licensed business	0.00	0.00	0.00	0.00	0.00
	C: Total	6.13	5.40	6.44	0.43	6.76
	D: Aggregate Revenue Requirement (A+B-C)	**630.37**	**663.72**	**712.53**	**800.39**	**800.63**

The ARR approved for FY 2019-20 and FY 2020-21 is Rs. 663.72 and Rs. 800.39 Crore. The proposed ARR for FY 2019-20 and FY 2020-21 is Rs. 712.53 Crore and Rs 800.633 Crore. MSPDCL requests the Hon'ble Commission to approve the same.

4.20 Revenue from sale of power

The revenue from sale of power to consumers at the existing tariff is estimated as Rs. 376.41 Crore and Rs 391.43 Crore for FY 2019-20 and FY 2020-21 respectively. The category-wise revenue realisation projection is as follows:

Table 32: Consumer Category-wise revenue projection at existing tariff for 2019-20 and 2020-21 (Rs. Crore)

Category of Consumers	2019-20 Proposed Energy Sales in MU	2019-20 Proposed Revenue in Rs. Cr	2020-21 Proposed Energy Sales in MU	2020-21 Proposed Revenue in Rs. Cr
LT Supply				
Domestic (Kutir Jyoti)				
All Units	3.72	1.16	3.88	1.20
Sub Total (a)	**3.72**	**1.16**	**3.88**	**1.19**
Domestic (General)				
First 100 kWh	331.14	171.36	346.04	177.16
Next 100 kWh	45.83	29.91	47.89	30.98
Balance>200 kWh	22.43	16.43	23.44	17.03
Sub Total (b)	**399.40**	**217.69**	**417.37**	**225.17**
Total Domestic (I=a+b)	403.12	218.86	421.26	**226.37**
Commercial				
First 100 kWh	29.49	20.16	30.82	20.95
Next 100 kWh	7.06	5.49	7.38	5.73
Balance>200 kWh	21.99	20.32	22.98	21.08
Total Commercial LT (II)	**58.54**	**45.96**	**61.18**	**47.76**
Public Lighting - LT	3.79	2.74	3.96	2.86
Public Water Supply-LT	1.31	0.99	1.37	1.03
Agri & Irrigation-LT	1.20	0.49	1.25	0.51
Small Industry-LT	20.57	9.90	21.49	10.28
Sub Total Other LT (III=4+5+6+7)	**26.86**	**14.12**	**28.07**	**14.68**
Commercial-HT	19.67	17.52	20.55	19.06
Public Water Supply-HT	21.20	16.30	22.15	17.07
Agri & Irrigation-HT	0.78	0.37	0.81	0.38
Medium Industry-HT	4.17	2.75	4.36	3.12
Large Industry-HT	7.77	6.22	8.12	6.52
Bulk Supply-HT	81.73	54.30	85.41	56.47
Sub Total Other HT (IV=8+9+10+11+12+13)	**135.31**	**97.47**	**141.40**	**102.62**
Grand Total(I+II+III+IV)	**623.83**	**376.41**	**651.91**	**391.43**

Apart from the revenue from sales to the consumers, MSPDCL received revenue from sale of surplus power. The revenue received from sale of surplus power in 2018-19 and projections for current and ensuing year is as follows:

Table 33: Revenue from surplus sale and total revenue projection for 2019-20 and 2020-21 (Rs. Crore)

Item	Approved for 2019-20	Proposed for 2019-20	Approved for 2020-21	Proposed for 2020-21
Sale of Surplus Power (MU)	287.25	67.35	351.20	172.64
Average Tariff for Sale of Surplus Power	2.65	3.80	NA	3.80
Revenue from sale of surplus power (Rs. Crore)	76.05	25.59	NA	65.60
Revenue for Sale to Consumers (Rs Crore)	368	376.41	NA	391.43
Total Revenue from Sales (Rs Crore)	**444.05**	**402.00**	**NA**	**457.03**

Further, the revenue from sale of surplus power is estimated as Rs. 25.59 Crore and Rs. 65.60 Crore for FY 2019-20 and FY 2020-21 respectively. Accordingly, MSPDCL requests the Hon'ble Commission to approve the total revenue of **Rs 402 Crore** and **Rs 457.03 Crore** for FY 2019-20 and FY 2020-21 respectively.

4.21 Revenue Gap

The Revenue Gap proposed by MSPDCL for FY 2019-20 and FY 2020-21 is shown in the Table below:

Table 34: Revenue Gap for FY 2019-20 and 2020-21 (Rs. Crore)

Sl. No	Particulars	FY 2019-20	FY 2020-21
1	Net ARR	712.53	800.63
2	Total Revenue	402.00	457.03
3	State Government Revenue Subsidy	219.48	216.00
4	**Unmet Revenue Gap**	**91.05**	**127.60**

As can be seen from the above Table, the Unmet Revenue Gap for FY 2019-20 is Rs 91.05 Crore. This gap has been estimated with the Government subsidy of Rs. 219.48 Crore for FY 2019-20. However, the government subsidy and ARR may change and accordingly the GAP will vary. MSPDCL proposed to approve the gap of Rs. 91.05 Crore for FY 2019-20.

For FY 2020-21, the unmet revenue Gap is estimated at Rs. 127.60 Crore with Government subsidy support of Rs. 216.00 Crore. MSPDCL proposes to recover the GAP by way of tariff hike for FY 2020-21.

5. Chapter 5: Tariff Determination for FY 2020-21

5.1 Aggregate Revenue Requirement

The combined ARR for FY 2020-21 for the wire business and supply business of MSPDCL is proposed is as follows:

Table 35: Combined ARR of MSPDCL proposed for FY 2020-21 (Rs. Crore)

	Particulars	ARR	% of Total
		2020-21	
	Cost of power purchase	490.73	61.29%
	Inter-State Transmission charges	61.53	7.68%
	Intra-state Transmission charges	91.34	11.41%
	SLDC & NERLDC Charges	7.86	0.98%
	Wheeling charges payable to other distribution licensee	0.00	0.00%
	O&M Expenses	136.26	17.02%
	Depreciation	2.93	0.37%
	Advance against depreciation	0.00	0.00%
	Interest on Loan	6.14	0.77%
	Interest on Working Capital	5.66	0.71%
	Bad Debt	3	0.37%
	A: Total Cost	**805.44**	**100.60%**
B	Add: RoE	1.95	0.24%
	Add: Income Tax	0	0.00%
	B: Total	1.95	0.24%
	Total ARR : A+B	**807.39**	**100.84%**
C	Less: Non Tariff Income	6.76	0.84%
	Income from other business allocated to Licensed business	0.00	0.00%
	C: Total	6.76	0.84%
	D: Aggregate Revenue Requirement (A+B-C)	**800.63**	**100.00%**

From above table it can be seen that, the total ARR of MSPDCL proposed for FY 2020-21 is of Rs. 800.63 Cr. In order to recover the same MSPDCL has primarily three main sources. MSPDCL can recover the ARR by sale of power at existing tariff to different consumers, can partially meet the revenue from Government subsidy received upfront and partly from the surplus power sold outside the state. Following table shows the status of revenue gap with existing consumer tariff (FY 2019-20) if applied to the FY 2020-21.

Table 36: Revenue Gap for FY 2020-21 at existing tariff (Rs Crore)

Sr. No	Particulars	Amount in Rs. Cr
1	Annual Revenue Requirement proposed for FY 2020-21	800.63
2	Revenue from sale of power at existing tariff and consumption slab	391.43
3	Revenue from sale of surplus power	65.60
4	Total Revenue	457.03
5	**Revenue Gap**	**343.60**

Thus MSPDCL has estimated that it will face a Revenue Gap of Rs. 343.60 Cr in FY 2020-21 for the proposed ARR with recovery as per existing tariff.

The projected Average Cost of Supply and Average realization from sale of power for FY 2020-21 is as shown in the Table Below:

Table 37: Projected ACOS and Avg. Realization FY 2020-21 at existing tariff (Rs. Crore)

Sr.No.	Particulars	Legend/formula	Units	FY 2020-21
1	Net Revenue Requirement	A	Rs. Crore	800.63
2	Revenue from existing tariff	B	Rs. Crore	391.43
3	Revenue from sale of surplus power	C	Rs. Crore	65.60
4	Total Revenue	D = B + C	Rs. Crore	457.03
5	Revenue Gap	E = A - D	Rs. Crore	343.60
6	Energy Sales	F	MU	651.91
7	Surplus Power to be sold	G	MU	172.64
8	Total Sales	H = F + G	MU	824.54
9	Average Cost of Supply	I = (A –C)/F X 10	Rs/kWh	11.28
10	Average Realisation from sale of power	J = (B x 10)/F	Rs/kWh	6.00
11	Average Rate for Sale of surplus power	K = (C x 10)/G	Rs/kWh	3.80
12	Average Rate for sale of all power	L = (B + C) x 10/H	Rs/kWh	5.54
13	Average rate for Unmet Revenue Gap	M = (E x 10)/H	Rs/kWh	4.17

In order to recover the estimated revenue gap, MSPDCL's proposal is discussed in following paragraphs:

5.2 Recovery of Revenue Gap for FY 2020-21

Regulation 4.2 (vi) of the JERC (MYT) Regulations, 2014 is reproduced below for ready reference:

"(vi) Annual determination of tariff for Generating Company, Transmission Licensee, Distribution Wires Business and Retail Supply Business, for each financial year

within the Control Period, based on the approved forecast and results of the truing up exercise."

Thus, in accordance with the above Regulations, it is expected that the Hon'ble Commission shall determine the category-wise tariffs in such a manner that the entire approved ARR of MSPDCL is recovered from the category-wise tariffs.

Further, the State Government subsidy referred to in the Electricity Act, 2003 and JERC (MYT) Regulations, 2014 is category-wise subsidy with respect to category-wise tariff approved by the Hon'ble Commission, i.e., targeted subsidy. Regulation 21.1 of the JERC (MYT) Regulations, 2014 is reproduced below for reference:

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

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

MSPDCL has compiled data from Tariff Orders issued by other SERCs, which clearly shows that the SERCs are generally issuing Tariff Orders where the Average Billing Rate (ABR) matches the Average Cost of Supply (ACoS). Even in States where there is a gap between the ACoS and ABR, the gap is much lesser than that being approved by the Hon'ble Commission.

Further, the Hon'ble Commission, while approving the ARR of MSPDCL, has already factored in the desired efficiency improvements and approves only the expenses that are considered to be legitimately recoverable from the consumers, in the opinion of the Hon'ble Commission. The Hon'ble Commission is well aware that the actual Distribution Losses and intra-State Transmission Losses of MSPCL are significantly higher than that being approved by the Hon'ble Commission on normative basis. Thus, there is no further scope for meeting any part of the approved ARR through efficiency improvements, and the entire approved ARR has to be met through tariff payable by the consumers.

Further, it needs to be appreciated that the existing revenue from sale of electricity does not even meet the power purchase cost from different sources, leave alone power purchase cost including inter-State and intra-State Transmission Charges. The Revenue from sale of power at existing tariff for FY 2020-21 is estimated at Rs. 391.43 crore, whereas the proposed cost of power purchase including inter-State and intra-State Transmission Charges for FY 2020-21 is itself Rs. 628.60 crore, i.e., Revenue from sale of electricity can meet only 62.25% of the power purchase cost including inter-State and intra-State Transmission Charges. The remaining 37.75% of the power purchase cost, and other expenses, viz., O&M expenses, interest expenses, etc., have to be met through some other sources.

It may be noted that generally, some of the categories are subsidising consumers, i.e., their Average Billing Rate (ABR) is higher than the ACoS, and such subsidising consumers cross-subsidise the subsidised consumers, whose ABR is lower than the ACoS. However, in case of MSPDCL, as the ABR of all categories is lower than the ACoS, i.e., all the categories are subsidised, and there is no subsidising consumer category. This highlights the fact that the tariffs of MSPDCL are at very low levels, which is unsustainable, and there is an urgent need to rationalise the tariffs of all consumer categories.

Further, in the MYT Order, the Hon'ble Commission has relied upon the trajectory of technical performance parameters agreed in the tri-partite UDAY MoU signed between MSPDCL, Government of Manipur, and Government of India. The UDAY MoU had proposed the tariff hikes up to Rs 6 /kWh by FY 2019-20. However, the tariff hikes approved are lower than the proposal agreed under UDAY MoU.

The financial aspects of the UDAY MoU cannot be separated from the technical aspects, and in the absence of adequate tariff increases, MSPDCL cannot be expected to achieve the technical performance parameters. Hence, adequate tariff increase is essential and MSPDCL requests the Hon'ble Commission to approve the appropriate and adequate tariff increase.

MSPDCL has also provided a comparison of the tariff for the domestic category prevailing in selected States having low consumption which clearly shows that the tariff in Manipur is significantly low and there is lot of scope for upward revision in the tariffs of all categories including the domestic category.

Table 38: Comparison of Domestic Tariff of selected States

Sl. No.	State	Category/Slabs	Fixed Charges (Rs/kW or kVA)	Variable Charges (Rs/kWh or kVAh)
1	Assam 2019-20	Jeevan Dhara 0.5 kW and 1 kWh/day up to 30 kWh / month	20	4.55
		Domestic A-below 5 kW		
		0-120 Units per month	40	5.40
		121 to 240 Units per Month	40	6.65
		Balance Units	40	7.65
		Domestic-B 5 kW and above upto 25 kW	40	7.25
2	Meghalaya tariff for 18-19	BPL	0	3.65
		0-100 Units	50	3.70
		101-200 Units	50	4.20
		200 and above	50	5.70
3	Jharkhand tariff for 2019-20	Kutir Jyoti and Domestic Rural	20/Conn/ Month	5.75
		Domestic Urban	75/kVA/M onth	6.25
4	Himachal Pradesh 2019-20	0-60 (Lifeline consumers including BPL)	40	3.30
		0-125 Domestic	70	3.95
		126-300	70	4.85
		301 & above	70	5.45
		Pre-paid meter $	0	4.80
8	Manipur	**Kutir Jyothi**		
		All units (15 kWh/month)	25	1.85
		Domestic		
		1-100 kWh/month	60	3.90
		101-200 kWh/month	60	5.20
		Above 200 kWh/month	60	6.00

Further, the Hon'ble Commission will appreciate that MSPDCL's own contribution to its ARR is only Rs. 149.17 crore, after excluding cost of power purchase and transmission charges, which are payable to other agencies based on regulated tariffs, and are hence, uncontrollable for MSPDCL. Thus, MSPDCL's contribution is only 19.23% of the proposed ARR of Rs. 800.63 crore, which works out to Rs. 1.81 per kWh, considering the total energy handled by MSPDCL.

Thus, it needs to be appreciated that the estimated Revenue Gap of Rs. 343.60 crore is lower than the Revenue from sale of power at existing tariff, i.e., Rs. 391.34 crore. In other words, if the entire Revenue Gap has to be recovered from the revised tariff, then the average tariff rise required will be 87.78%, which is very high and would amount to a tariff shock. Hence, for some years at least, the dependence on revenue subsidy support from the State Government would have to continue. At the same time, there is an urgent need to increase the category-wise tariffs to be charged by MSPDCL, so that the recovery of the ARR through tariffs can be met.

In view of above, MSPDCL has considered that the State Government would provide revenue subsidy support in FY 2020-21 to the extent of Rs. 216.00 crore, in addition to any Grants for creation of capital assets.

The balance Revenue Gap of Rs. 127.60 crore would thus, have to be recovered from the consumers through an average tariff hike of 32.58%, as shown in the Table below:

Table 39: Average Tariff Increase Required

Sl.	Particulars	Units	FY 2020-21
1	Net ARR	Rs. Crore	800.63
2	Revenue from Existing Tariff	Rs. Crore	391.34
3	Sale of Surplus Power	Rs. Crore	65.60
4	Total Sales Proceeds	Rs. Crore	457.03
5	Revenue Gap	Rs. Crore	343.60
6	State Government Revenue Subsidy	Rs. Crore	216.00
7	Net Un-met GAP	Rs. Crore	127.60
8	Revenue from sale of power at proposed tariff	Rs. Crore	518.97
9	**Average Tariff hike required**	%	**32.58%**

5.3 Tariff Proposal for FY 2020-21

1. As elaborated above, after considering the estimated revenue subsidy support from the State Government of Rs. 216.00 crore, the unmet Revenue Gap of Rs. 127.60 crore has to be recovered through tariff revision for different consumer categories.

2. The provisions of the Section 61 (g) of the Electricity Act, 2003 state that the Appropriate Commission should be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity. In line with the above provision, the Tariff Policy also stipulates that the tariffs should be within ± 20 % of the Average Cost of Supply (ACoS). However, in the present scenario, all the tariff categories are subsidised w.r.t. the ACoS. Hence, it is impractical to burden the consumers with a tariff shock in order to revise their tariffs within ± 20 % of the ACoS straightaway. Considering these limitations, MSPDCL has formulated its tariff proposal.

3. As such for FY 2020-21, MSPDCL has proposed an average Tariff increase of 32.58% of Commission approved tariff for FY 2019-20 to partially meet the proposed ARR. It may be noted that subsidy support of Rs. 216.00 crore for FY 2020-21 from the State Government has been considered while submitting the present petition and accordingly 32.58% increase in tariff has been propose to meet the revenue gap. However as on date on submission of the petition, MSPDCL has not received any commitment from state Government regarding the quantum of subsidy sanction for FY 2020-21.

4. MSPDCL proposes to increase the variable charges only for FY 2020-21 to meet the revenue gap.

5. MSPDCL requests the Commission to retain the existing system of telescopic tariff for LT Domestic and LT commercial categories in FY 2020-21.

6. The fixed charges for kutir jyoti consumers has been proposed to keep unchanged and the variable charges have proposed to increase from Rs. 1.85 to Rs. 3 per kWh.

7. MSPDCL has also attempted to maintain the cross-subsidy between consumer categories within the range of ±20% stipulated by the Tariff Policy, though for some categories, this has not been possible despite significant tariff increases.

8. Accordingly, the MSPDCL requests the Hon'ble Commission to approve the tariff structure as proposed below which factor in Rs 216.00 Cr subsidy to be received from the state Government .

Table 40: Existing & Proposed Category-wise Tariffs for FY 2020-21

Sl.	Category	Existing Tariff (FY 2019-20)		Proposed Tariff(FY 2020-21)	
		Fixed Charges per month (Rs.)	Energy Charges (Rs/kWh)	Fixed Charges per month (Rs.)	Energy Charges (Rs/kWh)
	LT Supply				
1	**Kutir Jyothi**				
i	All units (15 kWh/month)	25	1.85	25	3
2	**Domestic**	**Rs/ kW/month**			
i	0-100 kWh/month	60	3.90	60	5.90
ii	101-200 kWh/month	60	5.20	60	7.20
iii	Above 200 kWh/month	60	6.00	60	7.90
3	**Commercial**				
i	1-100 kWh/month	80	5.40	80	7.70
ii	101-200 kWh/month	80	6.50	80	8.20
iii	Above 200 kWh/month	80	7.65	80	8.80
4	**Public Lighting System**	65	7.00	65	8.50
5	**Public Water works**	100	7.25	100	8.70
6	**Irrigation & Agriculture**	60	3.90	60	5.90
7	**Small Industry**	65	4.10	65	6.60
	HT Supply	**Rs/kVA/month**		**Rs/kVA/month**	
1	**Commercial**	100	7.60	100	8.90
2	**Public Water works**	100	6.75	100	8.40
3	**Irrigation & Agriculture**	100	3.60	100	5.50
4	**Medium Industry**	100	5.30	100	6.80
5	**Large Industry**	100	6.60	100	8.30
6	**Bulk Supply**	100	5.90	100	8.00

5.4 Proposed Wheeling Charges for Open Access transactions for FY 2020-21

In accordance with Regulation 79 of the JERC (MYT) Regulations, 2014, MSPDCL has segregated the total approved ARR for FY 2020-21 into Wires ARR and Supply ARR based on the allocation matrix specified therein, as shown below:

Table 41: ARR for Wires Business for FY 2020-21

Sl.	Particulars	Total ARR	Wires Business (%)	Retail Supply Business (%)	Wires ARR	Supply ARR
A	**Expenditure**					
1	Cost of power purchase	490.73	0%	100%	0.00	490.73
2	Inter-State Transmission charges	61.53	0%	100%	0.00	61.53
3	Intra-State Transmission charges	91.34	0%	100%	0.00	91.34
4	SLDC & NERLDC Charges	7.86	0%	100%	0.00	7.86
5	O&M Expenses	136.26				
	Employee Expenses	113.48	60%	40%	68.09	45.39
	Repair & Maintenance Expenses	13.07	90%	10%	11.76	1.31
	Administrative & General Expenses	9.71	50%	50%	4.85	4.85
6	Depreciation	2.93	90%	10%	2.64	0.29
7	Interest on Loan	6.14	90%	10%	5.53	0.61
8	Interest on Working Capital	5.66	10%	90%	0.57	5.09
9	Provision for bad debts	3	0%	100%	0.00	3.00
	Total Cost	**805.44**			**93.43**	**712.00**
B	**Add: Return on Equity**	1.95	90%	10%	1.76	0.20
	Add: Income Tax	0	90%	10%	0.00	0.00
	B: Total	**1.95**			**1.76**	**0.20**
C	**Total ARR: A+B**	807.39			95.19	712.20
D	**Less (Non-Tariff Income)**	**6.76**	**10%**	**90%**	**0.68**	**6.08**
	Sub-total (D)	6.76			0.68	6.08
	Net Aggregate Revenue Requirement (C-D)	**800.63**			**94.51**	**706.12**

The proposed Wheeling Charges for FY 2020-21 has been computed based on the methodology adopted by the Hon'ble Commission for determining the Wheeling Charges in the MYT Order dated March 12, 2018, as shown in the Table below:

Table 42: Proposed Wheeling Charges for FY 2020-21

Sl.	Particulars	Units	Amount
1	ARR for Wires Business	Rs. Crore	91.52
2	Energy available at Distribution periphery	MU	863.45
3	**Wheeling Charges**	**Rs/kWh**	**1.09**

Thus, MSPDCL proposes Wheeling Charges of Rs. 1.09 per kWh for Open Access transactions in the State of Manipur.

6. Tariff Schedule

6.1 General Conditions of Supply (For all Categories of Consumers)

6.1.1 Rebate for advance payment: For payment of energy bill in advance, a rebate of 1% shall be allowed on the rate of charge of the applicable Tariff. This will be applicable only for all consumers provided with prepaid meters.

6.1.2 Rebate/surcharge for availing supply at voltage higher/lower than base voltage: Those who avail supply at higher voltage than the classified supply voltage for corresponding load as per Clause 3.2 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013, shall be allowed rebate and those availing supply at lower voltage than the specified voltage shall be levied surcharge as detailed below:

i) For consumers having contracted load up to 50 kW – If the supply is given at HV/EHV, a rebate of 5 % would be admissible on the rate of Energy Charge and Fixed Charge of the applicable tariff.

ii) For consumers having contracted load above 50 kW – If supply is given at voltage lower than the base voltage for corresponding load as per the Clause mentioned above, the consumer shall be required to pay an extra charge of 10 % on the bill amount (Energy Charge + Fixed Charge) calculated at the applicable tariff.

iii) All voltages mentioned above are nominal rate voltages as per Clause 3.2 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013 with up to date amendment.

6.1.3 Payment: All payments shall be made by way of Cash (up to the amount as acceptable to the Licensee), Banker's Cheque, Demand Draft or Money Order or e-transfer on-line. Cheques and Demand Drafts shall be payable at any branch of a scheduled commercial bank that is a member of the clearing house for the area where the concerned Sub Divisional Office is located.

However, part payment is subjected to acceptance by the competent authority. Bank commission/charges, if any, should be borne by the consumers. The transaction charges of Rs. 5 per transaction shall be borne by the consumer.

6.1.4 Validity of Existing Recharge Voucher: For a consumer with prepaid meter who has purchased voucher prior to the effective date of new tariff, the existing voucher shall continue till such voucher is exhausted. The licensee shall cautiously issue voucher so that the existing voucher is valid for a minimum number of days beyond the effective date of new tariff.

6.1.5 Surcharge for late Payment of Bills: If payment is not received within due date, late payment surcharge @ 2% at simple interest on the outstanding principal amount for each 30 days successive period or part thereof will be **charged, until the amount is paid in full.**

6.1.6 Single Point Delivery: This tariff is based on the supply being given through a single point of delivery and metering at one voltage. Supply at other points at other voltage shall be separately metered and billed for and shall be considered as separate connection**.**

6.1.7 Voltage and Frequency: All voltages and frequency shall be as per Clauses 3.1 and 3.2 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013.with up to date amendment

6.1.8 Power Factor Incentive/Surcharge:

a) If the average monthly power factor of the LT 3-phase and LT Industrial consumer and all HT consumers increases above 95%, he shall be paid an incentive at the following rate:

For each one percent increase by which his average monthly power factor is above 95%, up to unity power factor	**One percent (1%) of the total amount of the bill under the head 'Energy Charge'.**

b) If the average monthly power factor of the LT 3-phase and LT Industrial consumer and all HT consumers falls below 90%, he shall pay a surcharge in addition to his normal tariff, at the following rate:

For each one percent by which his average monthly power factor falls below 90% up to 85%	**One percent (1%) of the total amount of the bill under the head 'Energy Charge'.**

c) If the average monthly power factor of the LT 3-phase and LT Industrial consumer and all HT consumers falls below 85%, he shall pay a surcharge in addition to his normal tariff at the following rate:

For each one percent by which his average monthly power factor falls below 85%	**Two percent (2%) of the total amount of the bill under the head 'Energy Charge'.**

d) If the average monthly power factor of the LT 3-phase and LT Industrial consumer and all HT consumers falls below 70%, then the utility shall have the right to disconnect supply to consumer's installation after serving a notice of 15 days. Supply may be restored only after steps are taken to improve the power factor to the satisfaction of the Utility. This is, however, without prejudice to the levy of surcharge for low power factor in the event of supply not being disconnected.

e) For this purpose, the "average monthly power factor" is defined as the ratio of total 'kilo Watt hours' to the total 'kilo Volt Ampere hours' recorded during the month. This ratio will be rounded off to two figures after decimal. Figure 5 or above, in the third place after decimal, shall be rounded off to the next higher figure in the second place after decimal.

f) Notwithstanding the above, if the average monthly power factor of a new LT 3-phase and LT Industrial consumer and all HT consumers is found to be less than 90% at any time during the first 6 (six) months from the date of connection, and if he maintains the average monthly power factor in subsequent three months at not less than 90%, then the surcharge billed on account of low power factor during the said period, shall be withdrawn and credited in next month's bill.

6.1.9 Transformation loss: The consumers getting their supply at HT and metered on the LT side shall be charged transformation loss in kWh as per Clause 5.7 of JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013(together with latest amendment to date). However, the same is reproduced for the sake of referenec:

1. The average losses in the transformer shall be calculated as follows and added to the energy consumption indicated by the meter:

$$\text{Average transformer loss} = \frac{730 \times 1.0 \times C}{100} = \text{kVAh per month}$$

where C = kVA rating of the transformer. For conversion of kVAh to kWh or vice-versa, latest power factor as per JERC (M&M) (Electricity Supply Code) Regulations, 2013 with latest amendment is to be used.

2. The transformer loss arrived at by the above formula shall be added to the energy consumption, even when the recorded energy* consumption is nil.
3. 1% of the transformer capacity for transformer above 63 kVA will be added to the recorded maximum demand on the Low-Tension side to arrive at the equivalent High-Tension demand.

** Note: - In case of un-metered supply, consumed energy computed as per Clause 5(1) of this Tariff Schedule shall be taken as recorded energy consumption.*

6.1.10 Rounding of Contracted Load/billing demand: For the purpose of calculation of fixed/demand charge in the monthly billing, the contracted load/billing demand shall be taken on actual basis as recorded in DISCOM office (that is, not to be rounded). DISCOM should update contracted load/Billing Demand as per clause 108 of JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendment.

6.1.11 Mixed load: Any part of the connection given for one specified category should not be utilized for any other purpose to which higher rate of charge is applicable in the tariff schedule. A separate connection shall have to be taken for such loads or purposes falling under appropriate category, failing which the entire consumption so drawn shall be treated and would be billed in that corresponding category with higher applicable tariff for which any part of that connection is utilised.

6.1.12 Rounding-off to nearest Rupee: Each components of bill, such as energy charge, fixed/demand charge, meter rent, surcharge, rebate of any kind, etc, including interest, involving fraction of a rupee should be individually rounded-off to nearest rupee (fraction of 50 paise and above to be rounded-off to the nearest higher rupee and fraction less than 50 paise to be ignored). In case of non-availability/scarcity of small change of rupees less the Rs.10/-, consumer may be allowed to tender next higher amount divisible by 10. Such excess amount so tendered shall be carried forward to the next bill as a credit and shall not entitle any interest of whatsoever.

6.1.13 System of supply:

6.1.13.1 LT Supply:-

i) Alternating current, 50 Hz, single phase 230 Volts up to 8kW

ii) Alternating current, three phase, 400 Volts for loads above 8 kW upto50 kW. Wherever 3-phase connection is required for a load less than or equal to 8 kW,

ii) Alternating current, three phase, 400 Volts for loads above 8 kW upto50 kW. Wherever 3-phase connection is required for load less than or equal to 8 kW, necessary justification shall be provided along with such request for consideration of licensee for extending such supply.

6.1.13.2 HT Supply:-

Supply of Electricity to the Consumers at voltage above 400V as per Clause 3.2 of JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with up to date amendment.

6.1.14 The maximum demand means the highest load measured in average kVA or kW at the point of supply of a consumer during any consecutive period of 30 (thirty) minutes during the month or the maximum demand recorded by the MDI during the month.

6.1.15 Billing Demand: As defined in Clause 2.3(12) of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code)

Regulations, 2013 with latest amendments.

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

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

The subsidy should be released in advance, failing of which the licensee shall implement tariff indicated under Full Cost Tariff (i.e Without Subsidy). Therefore, if the government subsidy is regularly received, the licensee shall adopt tariff 'A' (Subsidised Tariff) or in the event of non-receipt of said subsidy, the Licensee shall be at liberty to implement tariff 'B' (Full Cost Tariff i.e., without Subsidy) during the period of non-receipt.

There can be a situation where the outstanding subsidy was released by the government after passage of much time and thereby if consumers were billed at full cost tariffs in any relevant month or months. Given the situation, the entire excess amount so charged on account of full cost tariff shall have to be reflected as rebate, by the licensee at a time, in the immediate monthly billing cycle being issued to respective consumers soon after receiving such subsidy pertaining to the past. If the rebate amount is exceeding the monthly bill amount to be adjusted, then such excess amount may be carried forward and be adjusted in the following monthly bills issued to the consumer until full settlement is made.

6.1.17 Tax or Duty: The tariff does not include any tax or duty, etc., on electrical energy that may be payable at any time in accordance with any law / State Government Rules in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

6.1.18 Contingency: - In case of any inconsistency between this Tariff Schedule and the prevailing JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013, the provision, meaning and contents of the said Code shall prevail.

A: SUBSIDISED TARIFF

6.2 LT Supply:-

6.2.1 LT Category-1:- KutirJyoti/BPL(Below Poverty Line) Connection
Applicability: Applicable to all households who have been given connection under KutirJyoti Scheme or similar connection under any scheme of the State Govt. or Central Govt. for the benefit of poorer section. As per existing norms unless supersedes by other new norms of KJS, if the total consumption in the last three months exceed 45 kWh, the connection should be converted to LT Category-2 (Domestic).

Permitted load:-Initially single light point connection which can be extended by one or two light points or as per the norms specified by competent Authority from time to time

Tariff Rates:

A) Fixed Charge: Rs 25.00 per month per connection.

B) Energy charge per month:

1) Metered Supply:

All Unit @ Rs 3.00 per kWh

Note: 1- if the total consumption of any consecutive three months is more than 45 kWh, then such consumer shall be re-categorised/converted into normal domestic category permanently from the very 1st/2nd/3rd month of that consecutive three months, if the total unit consumed exceed the specified limit of 45 kWh from that instance and the bill be served as domestic category. (clause 4.90 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 201 3 with latest amendments may be referred to.)

Note 2: In case a KutirJyoti /BPL consumer on getting converted into a domestic consumer, the re–categorised/converted consumer shall be required to pay towards load security/meter security deposit as applicable for domestic consumers. But, it shall not contradict clause 5.9 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments.

6.2.2 LT Category-2: Domestic

Applicability: Applicable for supply of energy exclusively for domestic purposes only in domestic premises. The Tariff is applicable to supplies for general domestic purposes such as Light, Fans, Heating devices, Television, VCR/VCP, Radio, Refrigerator, Air-conditioner, lift motors and all others appliances only for bona-fide residential use. This will not be applicable to institutions conducting commercial activities of any nature.

Tariff Rates:

A) Fixed Charge: Rs. 60.00 per month per kW of Contracted load

B) Energy charge per month:

1. Metered Supply

Consumption Range	Energy Charge (Rs. /kWh)
First 100 kWh/month	5.90
101-200 kWh/month	7.20
Above 200kWh/month	7.90

6.2.3 LT Category-3: Non-Domestic/Commercial

Applicability:

This tariff is applicable to all lights, all types of fans, heating devices, Television, VCR/VCP, Radio, Refrigerator, Air Conditioner, lift motors, pump and all other appliances for the purpose of private gain including other small power. This tariff includes power loads for non-domestic purposes like Government/semi-government/non-government offices, shops, hospitals, nursing homes, clinics, dispensaries, health centres, restaurants, bars, hotels, clubs, guest houses, circuit houses/rest houses, tourist lodges, picnic spots, resorts, farm/garden houses, clubs, markets, optical houses, public buildings, community halls, stadiums, meeting/conference halls, religious premises like churches, temples, mosques, gurudwaras, religious offices, all types of studios, tea stalls, professional chambers (like Advocates, chartered Accountants, consultants, Doctors, etc.), private trusts, marriage halls, public halls, show rooms, centrally air-conditioning units, commercial establishments, X- ray plants, diagnostic centers, pathological labs, carpenters and furniture makers, repair workshops, laundries, typing institutes, internet cafes, STD/ISD PCO's, FAX/photocopy shops, tailoring shops, Government/Non-Government Institutions, schools, colleges, libraries, research institutes, boarding/lodging houses, railway stations, fuel/oil stations/pumps, bottling or filling stations /plants, service stations, Railway/Bus stations/terminals, All India radio/T.V. installations, printing presses, commercial trusts, societies, banks, financial institutions, theatres, cinema halls, circus, coaching institutes, common facilities in multi-storied commercial offices/ buildings, public museums, crematoriums, graveyards, orphanages/recognized charitable institutions where rental or fees of any kind are charged, non-recognized charitable institutions, power supply to tele- communication system/towers and others applications not covered under any other categories.

Tariff Rates:

A) **Fixed Charge:** Rs. 80.00 per month per kW of Contracted load

B) **Energy charge per month:**

Consumption Range	Energy Charge (Rs. /kWh)
1-100 kWh/month	7.70
101-200 kWh/month	8.20
Above 200 kWh/month	8.80

6.2.4 LT Category-4: Public Lighting

Applicability: Applicable to Public Street Lighting System in Municipality, Town/ Committee, Sub-Town/Village, etc., including Signal system and Road and Park lighting in areas of Municipality, Town/Committee, Sub - Town/Village, etc.

Tariff Rates:

A) **Fixed Charge:** Rs. 65.00 per month per kW of contracted load.

B) **Energy Charge per month:**

1. **Metered Supply**

Consumption Range	Energy Charge (Rs. /kWh)
All Units	8.50

6.2.5 LT Category-5: Public Water Works (PWW)

Applicability: Applicable to all public water supply system and sewerage system.

Tariff Rates:

A) **Fixed Charge:** Rs. 110 per month per kW of Contracted load

B) **Energy charge per month:**

1. **Metered Supply:**

Consumption Range	Energy Charge (Rs. /kWh)
All Units	8.70

6.2.6 LT Category-6: Irrigation & Agriculture

Applicability: This tariff is applicable to irrigation/pumping for Agricultural purpose only.

Tariff Rates:

A) **Fixed Charge:** Rs. 60.00 per month per kW of Contracted load.

B) **Energy charge per month:**

1. **Metered Supply:**

Consumption Range	Energy Charge (Rs. /kWh)
All Units	5.90

6.2.7 LT Category-6: Small Industry

Applicability: Applicable to all Industrial power consumers with demand of power upto 50 kW, which are not covered by LT Category-3 (Supply for Non-Domestic/Commercial Purposes), such as steel fabrications, motor body builders, power handloom industry, poultry farming, pisciculture, prawn culture, floriculture in green houses, mushroom production, cold storage units, agriculture based industries, horticulture and any other type of industry where raw material is converted into finished products with the help of electrical motive power, printing press, etc. This will include domestic or commercial purpose within the industrial complex.

Tariff Rates:

A) **Fixed Charge:** Rs. 65.00 per month per kW of Contracted load.

B) **Energy Charge per month:**

1. **Metered Supply**

Consumption Range	Energy Charge (Rs. /kWh)
All Units	6.60

6.3 HT Supply Tariffs: The tariffs are applicable for Consumer availing supply at voltage above 400 V irrespective of connected load/contracted demand. It is mandatory to supply with voltage above 400 V, to consumer having a Contracted Load of above 50 kW or Contract Demand of above 59 kVA, as per Clause 3.2 of JERC for M&M (Electricity Supply Code) Regulations, 2013 with up to date amendment.

6.3.1 HT Category-1: Commercial

Applicability: This Tariff is applicable to similar purposes defined in LT Category-3 Supply for Commercial Purposes.

Tariff Rates:

A) **Demand Charge:** Rs. 100.00 per month per kVA of Billing Demand

B) **Energy charge per month**

Metered Supply:

Consumption Range	Energy Charge (Rs. /kWh)
All Units	8.90

6.3.2 HT Category-2: Public Water Works (HT-PWW)

Applicability: This tariff is applicable to similar purposes defined in LT Category-5 Supply for Public Water Works (PWW) and sewerage system.

Tariff Rates:

A) **Demand Charge:** Rs. 100.00 per month per kVA of Billing Demand.

B) **Energy charge per month:**

Metered Supply:

Consumption Range	Energy Charge (Rs. /kWh)
All Units	8.40

6.3.3 HT Category-3: Irrigation & Agriculture

Applicability: This Tariff is applicable to irrigation / pumping for agricultural purposes only.

Tariff Rates:

A) **Demand Charge:** Rs. 100.00 per month per kVA of billing demand

B) **Energy charge per month:**

Metered Supply:

Consumption Range	Energy Charge (Rs. /kWh)
All Units	5.50

6.3.4 HT Category-4: Medium Industry

Applicability: This Tariff is applicable to similar purpose defined in LT Category-7 for Small industry with Contract Demand upto 125 kVA or Contracted Load upto 100 kW.

Tariff Rates:

A) **Demand Charge:** Rs. 100.00 per month per kVA of Billing Demand.
B) **Energy Charge per month:**

Metered Supply:

Consumption Range	Energy Charge (Rs. /kWh)
All Units	6.80

6.3.5 HT Category-5: Large Industry

Applicability:

This Tariff is applicable for supply of power to industrial consumers having licence from designated authority of appropriate Government and not covered under any other category, at a single point for industrial purposes with Contract Demand above 125 kVA or Contracted Load above 100 kW.

Tariff Rates:

A) **Demand Charge:** Rs. 100.00 per month per kVA of Billing Demand.
B) **Energy charge per month:**

Metered Supply:

Consumption Range	Energy Charge (Rs. /kWh)
All Units	8.30

6.3.6 HT Category-6: Bulk Supply

Applicability:

This tariff is applicable for all installations, including mixed loads similar to LT Category-1 and LT Category-2 such as private sector installation, educational institution, defence installation, Government and Public Sector offices and complexes and Hospital, etc., that arrange their own distribution system of power within the premises with the approval of competent authority. This will not include industrial complexes comprising mixed load of LT Category-2 & 3.

Tariff Rates:

A) **Demand Charge:** Rs. 100.00 per month per kVA of Billing Demand.

B) **Energy Charge per month:**

Metered Supply:

Consumption Range	Energy Charges (Rs. /kWh)
All Units	8.00

B: FULL COST TARIFF (FCT) (i.e., WITHOUT SUBSIDY)

Sl.No	Category & Consumption Slab	Fixed Charges	Variable Charges
		per month (Rs.)	(Rs./kwh)
	LT SUPPLY		
1	**Kutir Jyoti**		
	First - 45 kWh/month	30	8.16
2	**Domestic**		0.00
	0-100 kwh/Month	70	9.03

	101-200 kwh/Month	70	9.64
	Above 200 kwh/Month	70	10.51
3	**Non-Domestic/Commercial**		0.00
	First - 100 kwh/Month	100	11.50
	Next 100 kwh/Month	100	12.36
	Above 200 kwh/Month	100	13.11
4	Public Lighting	100	11.75
5	Public Water Works	100	12.98
6	Irrigation & Agriculture	100	9.40
7	Small Industry	100	11.00
	HT SUPPLY		0
1	Commercial	110	11.87
2	Public Water Works	110	11.75
3	Irrigation & Agriculture	110	9.27
4	Medium Industry	110	11.13
5	Large Industry	110	11.75
6	Bulk Supply	110	10.51

6.4 Temporary Power Supply

Applicability: Temporary power supply shall be given through correct meter and carried out as per procedure laid down in Clause 4.56 to 4.70 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments. If the applicant provides the materials for service line, it shall be treated as per Clause 4.133 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments. **If the licensee/MSPDCL desires to delegate power to various level of officers, it may be done through an Executive Order by the licensee**. **However, in all cases, overall duration should not violate the Supply Code mentioned above.** If the service line is arranged by consumer, it shall be treated as per Clause 4.133 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013 (with latest amendments), and it shall be returned to the consumer after the period of supply is over. Energy charges bill shall be served as per the following rates:

Tariff Rates:

A) **Fixed / Demand charge:** 1.5 times the rate of fixed/demand charge of the applicable tariff category for which power supply is given.

B) **Energy charge per month:** 1.5 times the rate of the highest slab rate of the applicable tariff category for which energy is supplied.

6.5 Computation of energy consumed for cases given below

6.5.1 Unmetered supply:- As per Section 55 of Electricity Act 2003 and as per clause 5.1 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013 (with latest amendments), no installation should be serviced without appropriate and correct meter. As many years has elapsed from the effective date of the EA 2003 and even from the effective date of the Supply Code, the formula based computation of energy consumption in respect of unmetered supply is not acceptable and hence it is withdrawn through this order. Licensee should invariably install the requisite meters for all existing service connections and should not release any service connection without installing an appropriate and correct meter complying with provisions of Electricity Act 2003.

6.5.2 Short period of unmetered supply: - For un-meter (meter not available) supply as a result of defective, burnt, lost meter shall be treated as per the provisions of 6.11 – 6.13 of the Electricity Supply Code Regulations, 2013 (together with latest amendment) issued in this regard by this Commission.

6.5.3 For Un-authorised consumer/theft (includes by-pass of meter)/pilferage and cases are cover by section 135 of the Act. The energy consumed shall be computed as per provisions indicated at the Annexure 11.1.19 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 (together with latest amendments). The energy so computed shall be evaluated as follows:

(a)Load less than 10 kW

(1) First instance: - Thee (3) times the rate of the applicable tariff (fixed and variable charges) for which the unauthorised/theft of energy was so utilized.

(2) Second and subsequent instances: Six (6) times the rate of the applicable tariff (fixed and variable charges) for which the theft/unauthorised energy was so utilized.

(b) Load exceeding 10 kW

(1) First instance: - Three (3)) times the rate of the applicable tariff (fixed and variable charges) for which the unauthorised/theft of energy was so utilized.

(2) Second and subsequent instances: - Six (6) times the rate of the applicable tariff (fixed and variable charges) for which the unauthorised/theft energy was so utilized.

Note:- Additional punishment be given for such theft of energy shall be under the Electricity Act 2003 (with latest amendment) and/or as per the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013. with up to date amendment.

6.6 Miscellaneous Charges (Part of Non-Tariff income)

6.6.1 Meter Rent

6.6.1.1 Meter Rent for non-prepaid meters: Monthly charges for hiring of the meter,

indicator payable shall be as follows:

i. **AC single phase Energy meter, whole current: Rs. 10.00 per Month**.
ii. **AC, Three phase Energy meter, whole current: Rs. 20.00 per Month**.
iii. **AC, Three phase Energy meter, CT operated**: **Rs. 50.00 per Month**
iv. **AC, Three phase Energy meter, CT & PT operated**: **Rs. 500.00 per meter per Month.**

6.6.1.2 **Meter Rent for Pre-Paid Meters:** Monthly charges for hiring of the meter, indicator payable shall be as follows:

i. **AC, Single phase PP, Energy meter, whole current: Rs. 20.00 per month**
ii. **AC, Three phase PP, Energy meter, whole current**: **Rs. 40.00 per month**

6.6.2 Other charges for meter:

a) Meter shifting charge:

1. Rs 100.00 per shifting if resulted from reconstruction / modification of building and at consumer's request. Meterial to be borne by interest party.
2. Free of cost if shifting is done in the interest of licensee. Required material to be borne by licensee.

Meter shifting shall be carried out as per Chapter -5 of the JERC for Manipur and

Mizoram (Electricity Supply Code) Regulations, 2013 with up to date amendment.

b) **Replacement of meter:** Licensee shall have stock of energy meter as per Clause 5.51 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with up to date amendment. Replacement of meter shall be carried out as per Clause 5.31 to 5.50 of the same Code mentioned above. Charges for other materials will be extra.

However, in case of replacement of post-paid meter by prepaid meter by the utility, no meter replacement charge shall be borne by the consumer and the entire charge shall be borne by the utility.

Execution charge for re-installation/installation of meter:

- **a.** For existing consumer shall be Free of cost.
- **b.** For disconnected consumer being re-connected (if meter is removed) shall be charged @ Rs 75.00.
- **c.** For new consumer, it shall be included in the cost of service connection as under execution charges.

Cost of Energy Meters supplied by Licensee: As per the Licensee's purchase rate plus testing fee, if supplied from the Licensee (energy meters approved / tested by the Licensee only shall be used). However, when the cause leading to subsequent replacement is either manufacturing defect or fault of Licensee, then it shall be free of cost.

c) **Charges for testing of Meters at the request of consumers:** (Testing charge is inclusive of costs of meter re-sealing materials/equipment)

- **(i)** For AC single phase LT energy meter: Rs. 50.00 per meter per testing.
- **(ii)** For AC three phase LT energy meter whole current: Rs. 75.00 per meter per testing.
- **(iii)** For AC three phase LT energy meter, CT operated: Rs. 100.00 per meter per testing.
- **(iv)** For energy meter AC three phase, CT & PT operated: Rs. 150.00 per meter per testing.

In case the meter installed at the consumer premises is found to be defective from initial fitting, testing and replacement of meter shall be carried out as per clause 5.31 to 5.50 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013. With up to date amendment.

6.6.3 Testing of Consumer's Installation:

The first test and inspection will be carried out free of cost as per Clause 4.47 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with up to date amendment. Should any further test or inspection be necessitated due to fault in the installation or due to non-compliance with the condition of supply by the consumer, an extra charge of Rs. 100.00 per test, payable in advance, shall be levied. In the event of the consumer failing to pay the testing charge in advance within stipulated time, the Licensee will be at liberty to disconnect the consumer's premise from the supplier's main.

6.6.4 Disconnection and Reconnection:

a) **Disconnection:** Disconnection of an installation in all cases will be free of charges.
b) **Reconnection:**
   i. For AC single phase LT supply: Rs.80.00
   ii. For AC three phase LT supply: Rs. 150.00
   iii. For AC HT supply: Rs. 400.00

Note: - *Extra material required will be chargeable.*

6.6.5 Charges for change of category:

Charges for change of category will be done as per Clause 4.72 to 4.80, Clause 4.85 to 4.86 and Clause 4.90 to 4.93 of the Joint Electricity Regulatory Commission for Manipur & Mizoram (Electricity supply Code) Regulations, 2013. with up to date amendment.

6.6.6 Charges for Replacement of Connection Wire, Cut-out, Fuse, etc.:

Cost of replacement after initial fixation of connection wire, cut-out, fuses, etc., will be borne by the consumers and shall be payable by the consumer in advance as per purchase rate of the Licensee. The Licensee may supply the materials or the consumer may arrange the required materials as per the required specifications of the Department.

The execution charge shall be as given below:

1. **For Cable and wire**:

   i. **Single phase connection:** Rs.400.00 per connection.

   ii. **LT three phase connection:** Rs.600.00 per connection.

   iii. **HT three phase connection:** Rs.900.00 per 100 meters of the HT line

2. **For Cut out & Fuse: -**

   i. Rs 15.00 per cut out.

   ii. Rs 5.00 per fuse

6.6.7 Re-rating of Installation

This charge is for meeting expenses toward spot verification of load and other connected recording works. Fees for re-rating of the consumer's installation at the request of the consumer shall be Rs.100.00 per connection.

These charges shall be payable by the consumer in advance. The aforesaid charges do not include the charges payable by the consumer for other works connected due to change of connected load. Rerating shall be carried out as per Clause 4.94 to 4.107 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013. with up to date amendment.

6.6.8 Security Deposit:

i) Load Security:

The amount of load/meter security shall be calculated as per the procedure prescribed in Clause 4.123 – 4.127 and determined as per Annexure 11.18 of the JERC for M&M (Electricity Supply Code) Regulations, 2013. **with up to date amendment. However, consumer with prepaid meter shall not be required to pay load security deposit.**

ii) Meter Security (if Licensee's own meter is used):

The amount of Security deposit for meter security shall normally be the price of the meter as fixed by the licensee from time to time in line with **Section 55 of Electricity Act 2003.**

6.6.9 Charges for Replacement of tamper proof Meter Box:

For AC single phase LT or three phase LT without CT or with CT, the charge will be as per Licensee's purchase rate in case the energy meter box is replaced by the Licensee from its store.

6.6.10 Service Lines & Service Connection

i) **Type of Service Connection:** Type of service connection and distance for service connection will be as per Clause 4.2 read with Clause 5.10 of Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with up to date amendment.

ii) **Cost of Service Connection:** As stipulated in Clauses 4.37 and 4.131 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with up to date amendment. If the consumer desires to arrange service connection materials, the Licensee (not below rank of Junior Engineer concerned) will check all the materials.

6.6.11 Mutation Fee: Mutation fee, i.e., fee for change of name shall be Rs 50 per change**.** This shall be carried out as per Clause 4.81 to 4.84 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013.

6.6.12 Cost of Application Form: The Application Form shall be free of cost vide Clause 4.14 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with up to date amendment.

6.6.13 Operation & Maintenance (O&M) Charge on dedicated assets: - The O&M charge of assets created out of such amount received without any obligation to return the same and no interest costs attached to such subvention, from Consumer Contribution, Deposit work and any similar nature shall be as follows: -

1) The completion costs shall be escalated at the rate of 4 % per annum from the year of completion to arrive the costs of the assets for 2015-16 level.

2) The annual O&M charges/expenses shall be 5 % from the 2015-16 level costs.

3) The O&M charges/expenses for each subsequent year will be determined by escalating the base charges/expenses determined above for 2015-16, at the escalation factor of 5.72 % to arrive at possible O&M charges / expenses for each year.

7. Chapter 7: Compliance of Directives

The Hon'ble Commission vide Tariff Order dated 12th March 2018 had issued a set of directives to be followed by MSPDCL to comply with the JERC (Terms and Conditions of Determination of Tariff) Regulations, 2014.

MSPDCL has been taken several steps to comply with the directives. The purpose of this Chapter is to appraise the Hon'ble Commission on progress made by MSPDCL on this matter since the issuance of the aforesaid Tariff Order.

Compliance of Directives

Sl. No.	Directive	Compliance Status
New Directives issued by Hon'ble Commission in its tariff order for FY 2019-20		
	Directive 34 **Reduction of consumption slabs in Domestic and Commercial Categories of consumers:** The Licensee shall reduce the number of consumption slabs in the following categories in the next year tariff filing proposals: (a) LT domestic from three slabs to two slabs. (b) LT Commercial from three slabs to two slabs.	There are only three existing tariff slabs for LT domestic/LT commercial category. It aptly captures the sales and the consumer details of all the LT domestic/commercial consumers. Further reduction of tariff slabs may not facilitate the utility to envisage the slab wise consumption for future projections. Moreover, most state DISCOM in the country has minimum three tariff slabs in LT domestic/commercial category and followed telescopic tariff, like MSPDCL. Therefore, we humbly request the Hon'ble Commission

Sl. No.	Directive	Compliance Status
		to allow us to continue with three tariff slab of LT domestic/commercial category.
	Directive 35 **Licensee shall submit the detailed information on the following items latest by 15th August 2019:-** *a)* Details of year wise pre-paid meters purchased so far with copies of supply/work order since the adoption of the pre-paid metering system. *b)* Year- wise installation of pre-paid meter since adoption of the pre-paid metering system. *c)* Circle wise installation of pre-paid meters giving details of sub-division with category wise consumers with activated pre-paid meters. *d)* Report on the year wise impact of pre-paid metering in the billing efficiency and collection efficiency of - 1) Sub-division, Division and Circle since the adoption of prepaid meters. 2) Upto date circle wise, Division/Sub-division list of consumers with activated/unactivated prepaid meter.	MSPDCL is collecting the data and shall submit the same at the earliest possible

Sl. No.	Directive	Compliance Status
	3) Plan and target date for installation and activation of pre-paid meter to all the consumers under MSPDCL.	
	Directive 36 MSPDCL should work out strategy to arrive at slab-wise energy consumption per consumer per month in respect of domestic and commercial categories. The average number of consumers consuming electrical energy in the first slab, second slab and third slab in domestic and Commercial categories respectively should be submitted along with their tariff petition for FY 2020-21 positively for proper assessment of revenue projection.	MSPDCL is collecting the data and shall submit the same at the earliest possible
	Directive 37 MSPDCL should vigorously take up consumer metering either in Postpaid/Prepaid mode not only in valley but also in hilly areas, 100% metering should **be achieved within September 2019.** This will lead to meaningful consumption of Energy and fruitful consumer awareness campaign in hill areas and plain	MSPDCL is collecting the data and shall submit the same at the earliest possible

Sl. No.	Directive	Compliance Status
	areas. This will also reduce un-accounted energy and Distribution losses of the DISCOM.	
New Directives issued by Hon'ble Commission in its tariff order for FY 2018-19		
	Directive 29 MSPDCL was directed to ensure the installation and energization of meters at all 11 kV feeders which is the inter-company boundary and the energy injection point from MSPCL to MSPDCL system for proper energy accounting. The Commission also directed that there should be monthly joint reading of the meters by MSPCL and MSPDCL.	It is submitted that MSPCL & MSPDCL to nominate nodal officers with minimum rank of DGM and co-ordinate the exercise of joint feeder meter reading, every month and compile feeder wise energy sent out / received by MSPCL / MSPDCL for energy audit. The joint meter readings are to be counter signed by the nodal officers. The Nodal Officer for joint metering from MSPDCL is nominated. At present provisional meter readings, subject to correction, are taken in the presence of the Substation Staff using CMRI.

Sl. No.	Directive	Compliance Status
	Directive 30 MSPDCL and MSPCL were directed to conduct monthly joint meter reading of the 11 kV incoming meter (which is the injection point of energy from MSPCL to MSPDCL). MSPDCL was directed to complete installation and Energization of all 11 kV feeder meter by September, 2018 and calculate the energy injected by MSPCL to MSPDCL on monthly basis. MSPDCL was also directed to complete the DT metering by September, 2018 and conduct a case study of feeder-wise energy loss for all 11 kV lines. The Hon'ble Commission further directed MSPDCL to come up with LT line loss for individual DT fed LT lines. The Licensee should submit compliance report in full shape by 15th July 2019 as the licensee has stated that all the metering installations would be completed by the end of 2018-19.	The monthly wise feeder wise energy report is required to be reconciled with MSPCL and SLDC report. At present, energy accounting through DT metering could not be done due to the below reasons ➢ 100% DTR metering was not done under the scheme. ➢ Deactivation of GPRS connectivity for the installed modems attached to DTs due to unstable network. ➢ The exorbitant recurring charges for the installed systems MSPDCL has been installing 11 KV feeder meters on priority basis. Due to not availability of meters the 100% metering could not be completed. MSPDCL shall submit the complete status of metering st the earliest possible.

Sl. No.	Directive	Compliance Status
	Directive 31 The Commission is of the view to introduce kVAH billing in energy charges to all HT categories and LT categories with contracted load of 20 kWh and above with effect from FY 2019-20 onwards. The licensee is directed to see that all HT connections are provided with trivector/MDI meters for such connections without fail. Targeted date by which KVAH billing will be introduced be reported by 30.06.2019.	Meter reading and billing for all the HT consumers has been started for kVAh measurement in line with the tariff order. All the HT consumer meters are having trivesctor / MDI meters. The LT three phase consumers above 20 kW are having prepaid meters. They are being billed on kWh basis.
	Directive 33 MSPDCL was directed to submit reliable average slab-wise monthly energy consumption per consumer and number of consumer in each slab during the FY 2017-18 (Actual), FY 2018-19 (Revised Estimate based on last 6 months) and FY 2019-20 (Projection) along with the Petition for determination of ARR & Tariff for FY 2019-20 positively in respect of Kutir Jyoti,	MSPDCL has submitted the slab-wise consumption for Domestic and Commercial / non-Domestic categories for FY 2020-21 in the ARR Petition.

Sl. No.	Directive	Compliance Status
	Domestic and Non Domestic/Commercial under LT Categories. The Hon'ble Commission also directed to take necessary action immediately to make available the requisite data at the time of the Petition mentioned above. The Licensee shall sincerely submit the above data with full details in the future submissions. In the FY 2019-20, due to the data inadequacy, Commission had to make lots of assumptions in estimating the consumer related data and the quantum of consumption and the contracted loads in the process of tariff design for the FY 2019-20.	
Old Directives		
	Directive 2: Annual Statement of Accounts MSPDCL was directed to prepare separate Annual accounts statements such as balance sheet, profit and loss Account and relevant schedules and statements,	MSPDCL is in the process of finalizing the financial statements of FY 2015-16, FY 2016-17, FY 2017-18 and FY 2018-19 and will submit the same to the Hon'ble Commission once it is finalized.

Sl. No.	Directive	Compliance Status
	every year for regulatory purpose and submit to the Commission after duly getting them audited. **MSPDCL should file next ARR tariff petition along with true up petition base on audited annual accounts figure for the years from 2015-16, 2016-17 and 2017-18. Their commission shall no longer entertain provisional true up.** **Commission will no longer entertain provisional true up in the next tariff petition without the submission of the Audited annual accounts in full shape.** The delay in submission of true-up will cost the Licensee to forego the entitlement to claim for additional period cost due to inflation for the true-up delay.	
	Directive 3: Maintenance of Asset & Depreciation Registers MSPDCL was directed to update the asset register and submit to the Commission soon.	Asset and depreciation registers for FY 2015-16, FY 2016-17, FY 2017-18 are ready for submission. The same shall be submitted at the earliest possible.

<table>
<tr><th>Sl. No.</th><th>Directive</th><th>Compliance Status</th></tr>
<tr><td></td><td>Directive 4:
<u>Management Information System (MIS)</u>
MSPDCL was directed to take appropriate steps to build up credible & accurate database and management information system (MIS) and regularly update the same for future record and reference. Arrangement may also be made for “On-line Payment” and “Payment through Bank” of the electricity bills.</td><td>The MIS system is under progress and the database is being prepared. The online payment portal for pre-paid recharge is already active, where payments can be done through electronic wallets.</td></tr>
<tr><td></td><td>Directive 5:
<u>Revenue Arrears</u>
MSPDCL was directed to assess year-wise Revenue Arrears due from consumers and submit a report by 30th September, 2011 to the Commission. The MSPDCL was also further directed to initiate action to collect/ liquidate the arrears.
Through prepaid meters future accumulation of fresh arrears can be arrested. At present we are in Post-</td><td>A summary of consumer bill outstanding is as follows;
<table>
<tr><td>Opening as on 01.02.2014</td><td>431.12 Cr</td></tr>
<tr><td>31.03.2014</td><td>425.72 Cr</td></tr>
<tr><td>31.03.2015</td><td>437.43 Cr</td></tr>
<tr><td>31.03.2016</td><td>446.48 Cr</td></tr>
<tr><td>31.03.2017</td><td>470.59 Cr</td></tr>
<tr><td>31.03.2018</td><td>495.66 Cr</td></tr>
</table></td></tr>
</table>

Sl. No.	Directive	Compliance Status
	paid meters' usage stage. In the directive, it was requested to submitted category wise year wise arrears due at a point of time say as on 31.03.2018. This may be reported by 30.06.2019.	
	Directive 8: Sale of Power outside the State MSPDCL was directed to ensure that only surplus power be sold under UI sales after fully meeting the State's requirement without any stagnation of supply in the State. This may be ensured strictly. The average power purchase cost in Rs.6.84/kWh during FY 2017-18. While the surplus power of 225.71 MU but not 207.74 MU was sold at an average cost of Rs.2.438/kWh during FY 2017-18 by incurring loss in every unit sold. **Instead had the power drawn to the actual requirement by proper planning this type of loss can be avoided.** **Therefore, this practice of selling units at loss be**	Due to improvement in the UI mechanism, the Power purchased under UI decreased from 33.58 MU in FY 2016-17, 6.02 MU in FY 2017-18 and 16.57 MU in 2018-19. Under UI mechanism the company has sold 39.64 MU of surplus energy available in 2018-19. Further, sale of surplus power on IEX has been reduced from 207.74 MU in FY 2017-18 to 130 MU in 2018-19. As MSPDCL has signed the long term PPA with CGPs for purchase of power, MSPDCL has to pay the fix charges for total quantum and variable charges for quantum of energy drawl. Due to increase in domestic consumers and hence sales, the surplus available energy is reducing. Further, the availability of power from CGPs is varying based its availability and hydrology. Also the states

Sl. No.	Directive	Compliance Status
	discontinued forthwith. The loss on account of this surplus power sell cannot be passed on to the consumers partially, though Government subsidy is also absorbing to a greater extent. In future, the Commission will flag this kind of loss transactions and would disallow to pass it on to consumers from next year tariff determination.	consumption is varying which is more in winter than other seasons. MSPDCL is now managing the variability by banking the electricity with trader when demand is low and CGPs are available. During winter season when demand is more than availability from CGPs the bank energy is used. MSPDCL has planned to slowly reduce the surplus sales to IEX.
	Directive 10: Unauthorized Connection/ Theft of power Cases & **Directive 11:** Detailed Survey & Investigation In the above two directives, the Commission had directed to carryout detailed survey & Investigation to – 1. Identify unauthorized connections. 2. Physical verification of the connected load of all connections. 3. Physical verification of the categories under which the consumers are availing supply.	The unauthorized connections and connected load are being taken care of under the pre-paid metering plan. MSPDCL has already achieved 100% pre-paid metering for EC-I. AB Cables are being used in LT supply to avoid the power theft. In EC-I around 90% LT lines are using AB cables. For EC-II and EC-III, 100% per-paid metering will be achieved by the end of FY 2020-21. Physical verification drive shall be conducted in the FY 2020-21. 100% physical verification shall be completed by 2021-22.

Sl. No.	Directive	Compliance Status
	4. Verification & updating of names of the consumers etc. and 5. Regularize 30000 unauthorized consumers annually. Unauthorized connections shall be brought under billing once they are identified and regularized but not by prepaid metering plan. In either case physical verification of connections in only remedy.	
	Directive 12: Replacement of Defective Meters and Installation of Meters to Un-Metered Connections MSPDCL was directed to provide meters to all un metered consumers and replace the defective meters within the time frame given in the Commission Order No. 24012/2/5/09 – JERC dt 7.1.2011 on 100% metering plan and submit quarterly report regularly.	It is submitted that MSPDCL is allotting the New connection to the consumer only after installation of the Meter. List of Replacement of Defective Meters and installation of Meters to Un-Metered Connection is under consideration & will be submitted once finalized. Based on the availability of new energy meters, 100% replacement of defective meters shall be completed.

Sl. No.	Directive	Compliance Status
	Directive 13: Physical and Financial Status of RAPDRP & RGGVY Schemes As per above directive MSPDCL has to submit physical and financial progress of work done and the impact of the works on revenue performance and metering with details of work done, amount of revenue increase etc. **The licensee shall submit the physical & financial progress achieved quarterly to the Commission until the completion of the works under both the schemes.**	The details of Physical and financial status of RAPDRP & RGGVY Schemes shall be submitted at the earliest possible.

<table>
<tr><th>Sl. No.</th><th>Directive</th><th>Compliance Status</th></tr>
<tr><td></td><td>Directive 14:
<u>Interest on Security Deposit</u>
MSPDCL was directed to furnish up to-date position of interest on security deposit as per Regulation 6.10(5) of JERC (Supply Code) Regulations 2010. The above rule may be followed scrupulously.
The licensee shall intimate the amount of Security deposit amount being received every year to the Commission. Besides, this amount shall be taken into the tariff submissions while arriving at interest on working capital amount as per the provisions of the MYT Regulation 2014 as it is noticed that Licensee is not indicating this amount in their ARR calculations.</td><td>The security deposits of pre-paid consumers who have been converted to post- paid have already been paid.
However, for the post-paid consumers the security deposit is collected by MSPDCL. The interest earned on security deposit is considered in the ARR filing for FY 2020-21. The summary of security deposit is as follows:
<table>
<tr><th>Particulars</th><th>Amount in Rs Cr</th></tr>
<tr><td>Opening balance as on 01.04.2018</td><td>14.066</td></tr>
<tr><td>SD received during 2018-19</td><td>0.749</td></tr>
<tr><td>Opening balance as on 01.04.2019</td><td>14.815</td></tr>
<tr><td>SD received during 2019-20 till Sept 2019</td><td>0.408</td></tr>
<tr><td>Balance as on 30.09.19</td><td>15.223</td></tr>
</table></td></tr>
<tr><td></td><td>Directive 16:
<u>Investment Plan and Capping of Capital expenditure</u>
Annual Investment Plan shall be submitted to the</td><td>No Such Capital Investment Plan has been proposed form MSPDCL own funds in the FY 2019-20 and FY 2020-21.</td></tr>
</table>

Sl. No.	Directive	Compliance Status
	Commission and necessary approval of Commission shall be obtained for all major capital works costing Rs. 5.00 Crore and above before execution of the works. **Whether it is own funds or Govt. funds no matter, all capital works costing Rs.5.00 Crore and above shall be submitted to commission for approval.**	
	Directive 17: Maximum Demand Indicator Meters (MDI) to be provided to all high value connections	The energy meters are having facility to record the Maximum Demand. The high value connections are having the MD record facility and hence MD recording is taken care of.
	Directive 18: As verified from the Tariff Schedule, it is observed that unmetered categories are prevailing in all categories including HT. Continuance of HT connections without meters is highly irregular. As per Electricity Act, 2003 no service connection be released without meter. As such, the MSPDCL is directed to provide HT meters to all unmetered HT connections	In this regard it is submitted that MSPDCL is not allotting any new connection without installation respective meters. Further it is submitted that due to non availability of energy meters the 100% energy metering could not be completed. MSPDCL shall put all its efforts to complete the 100% HT metering in FY 2020-21 and the 100% LT metering by 2021-22.

Sl. No.	Directive	Compliance Status
	in the first instance and report compliance by 30.09.2016 positively. In respect of LT categories, all unmetered connections be provided with meters by 31.03.2017. Progress and providing meters to unmetered connections be reported quarterly indicating category-wise number of unmetered connections at the beginning of the quarter and installed during the quarter and balance to be installed. **Compliance if fixing meters to all unmetered connections be repeated by 30.09.2019 positively.**	
	Directive 20: <u>In house development of IT enabled system</u> MSPDCL is directed to take steps for development of in-house IT enabled system so that all software issues can be attended/solved departmentally instead of depending on consultants. **Targeted date by which MSPDCL will be**	MSPDCL would like to inform the Hon'ble Commission that there has been progress in the in-house development of IT enabled system in the last one year. Some in-house developed IT platforms are already in operation to improve administrative processes. A few notable accomplishments are listed below. →powernodue.com: It is a domain which has a database of all the employees along with their connection status. It incorporates a

Sl. No.	Directive	Compliance Status
	independent with its IT team may be indicated.	hassle free fast and efficient process of getting no-dues certificate. →Indent: It is an IT enabled platform which facilitates and streamlines the approval process for despatch from store to field. → Online prepaid recharge with e-wallets like NPCI Bharat Bill Payment System. Furthermore, MSPDCL would like to state that it has bought Virtual Private Network and it is being planned to set up a physical server in one year to go digital with all the files available on one electronic platform. All these steps are guided towards making MSPDCL independent with its IT team and reducing dependency on consultants.
	Directive 21: <u>Updation of computerized billing program of power factor and rebate/surcharge</u> MSPDCL should up-to-date computerized billing programme to facilitate adoption of power factor rebate/surcharge as indicated in the tariff schedule.	The computerised billing program for power factor rebate/surcharge is under progress. The HT cell of MSPDCL is undertaking the necessary steps towards installation of the program and it is expected to complete it in FY 2020-21.

Sl. No.	Directive	Compliance Status
	Compliance may be reported in next tariff order.	
	Directive 22: Installation of meters to all 11 kV feeders and DT's MSPDCL should install meters for all 11 kV feeders and DT's in all RAPDRP covered towns by 30.06.2016. Sample study should be conducted to know the highest feeder loss and highest DT loss and report to be submitted to the Commission by 30.09.2016. **Targeted sale (date) by which 100% metering of 11 KV feeders be achieved may be intimated in the first insistence.**	It is submitted that under RAPDRP Part-A 72 nos. of 11KV Feeder meters and 925 nos. of DT meters were installed. 100% DTC metering could not be completed due to non-availability of energy meters and the same shall be completed in FY 2020-21.
	Directive 23 As per Regulations 2 (19) of JERC (M&M) (MYT) Regulations, 2014 the Second Control Period shall be five years from 01.04.2018. The MSPDCL is directed	The audited balance sheet of MSPDCL for FY 2015-16, FY 2016-17, FY 2017-18 and FY 2018-19 are being prepared and will be made available soon. After finalization of audited accounts MSPDCL will submit the same for final true-up.

Sl. No.	Directive	Compliance Status
	to submit the next ARR for Control Period from FY 2018-19 to FY 2022-23 and Tariff Petition for FY 2018-19 and true up petitions for FY 2015-16 and FY 2016-17 along with audited annual accounts for FY 2015-16 and FY 2016-17 invariably. **Audited Annual Accounts for FY 2015-16 to FY 2015-16 to FY 2017-18 along with revised true up petitions be submitted soon.**	
	Directive 24 The MSPDCL is directed to submit the required information in the format prescribed in JERC M&M (MYT) Regulations, 2014 from next tariff petition onwards which are mandatory.	MSPDCL has submitted all the necessary required information in the format prescribed.
	Directive 26: <u>Accounting of non-tariff income</u> As per Form No.11 of JERC (M&M) (MYT) regulations, 2014, non-tariff income comprises : A Particulars	MSPDCL has segregated the Non-Tariff income component as per the directive of the Hon'ble Commission and it has submitted the details accordingly in Provisional True-up Petition for FY 2018-19.

Sl. No.	Directive	Compliance Status
	1 Income From Investments, Fixed and Call Deposit 2 Interest Income from Investments other Contingency Reserves 3 Interest on Fixed Deposits 4 Interest from banks other than Fixed Deposits 5 Interest on (any Other items) Subtotal B Other Non Tariff Income 1 Interest on loan and advances to staff 2 Interest on loans and Advances to other licensees. 3 Interest on loan and advances to lessors. 4. Interest on Loans and advances to Suppliers/Contractors 5. Gain on sale Fixed Assets 6. Income/Fee/Collection against staff welfare activities 7. Miscellaneous receipts	

Sl. No.	Directive	Compliance Status
	8. Meter Rent 9. Recovery from theft of energy. 10. Surcharge and Additional Surcharge. 11. Incentive due to Securitisation of CPSU Dues. 12. Misc. charges from consumers. 13. Delayed payment surcharge from consumers. 14. Any other subsidies/ grants other than u/s 65 15. Commission on collection of Electricity Duty for MCD Sub-Total Total (A+B) MSPDCL is directed to account for the income relating to above heads in the respective heads and furnish the information in the format without omissions from next ARR.	

Sl. No.	Directive	Compliance Status
	Directive 27 MSPDCL is directed to fill up judiciously all Forms relevant to MYT Regulations viz. Appendix C,D and also submit year wise slab wise consumers, slab wise energy consumed and category wise total contracted load while submitting Tariff Petition for control period FY 2018-19 to 2022-23 to avoid additional information queries after submission of petition.	MSPDCL has filed up all the forms relevant to MYT Regulations along with year wise, slab wise consumers, slab wise energy consumed. MSPDCL has furnished all the data available as per the Directive along with the MYT Petition. The APR for FY 2019-20 and ARR for 2020-21 has been prepared and submitted in the present petition.

8. Chapter 8: Prayers

MSPDCL requests the Hon'ble Commission to:

a. Admit the Petition for Limited Provisional True-up for FY 2018-19, APR for FY 2019-20, ARR & Tariff Determination for FY 2020-21, as submitted herewith;
b. Approve the amounts claimed in the Limited Provisional True-up for FY 2018-19;
c. Approve the category-wise tariffs proposed by MSPDCL for FY 2020-21;
d. Condone any inadvertent omissions/ errors/ shortcomings and permit the Petitioner to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date;
e. Permit submission of any additional information required by the Commission during the processing of this Petition;
f. Pass such other and further orders as are deemed fit and proper in the facts and circumstances of the case.

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