



Petition for

Limited Provisional True-up of FY 2020-21,
Annual Performance Review of FY 2021-22 &
ARR and Tariff Petition for FY 2022-23
of

**MANIPUR STATE POWER DISTRIBUTION
COMPANY LTD (MSPDCL)**

for its Distribution and Retail Supply Business

Submitted to:

**Joint Electricity Regulatory Commission
for Manipur and Mizoram**

By

**MANIPUR STATE POWER DISTRIBUTION COMPANY LTD.
(IMPHAL)**

December, 2021

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 2020-21, Annual Performance Review for FY 2021-22 and Determination of ARR & Tariff for FY 2022-23 of Manipur State Power Distribution Company Limited (MSPDCL) 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 2020-21, ANNUAL PERFORMANCE REVIEW FOR 2021-22 AND DETERMINATION OF ARR & TARIFF FOR FY 2022-23 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 2020-21, Annual Performance Review 2021-22 and Determination of ARR & Tariff for FY 2022-23 based on the ARR approved by the Hon'ble Commission for FY 2022-23 in the MYT Order for MSPDCL dated 12 March, 2018 in Petition (ARR & Tariff) No. 1 of 2018 and subsequent tariff orders issued by the Hon'ble Commission.
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 2020-21, Annual Performance Review for FY 2021-22 and Determination of ARR & Tariff for FY 2022-23 in accordance with the principles specified in the JERC (Multi Year Tariff) Regulations, 2014, and its subsequent amendments, as 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 2020-21, Annual Performance Review for 2021-22 and Determination of ARR & Tariff for FY 2022-23, and grant the specific reliefs prayed for.

Manipur State Power Distribution Company Limited

Petitioner

Place: Imphal

Dated: 2021

1. Chapter 1: Introduction.....	10
1.1 Historical Background.....	10
1.2 Power Profile of MSPDCL	11
1.3 Background of Regulatory Setup.....	12
1.4 Contents of this Petition.....	13
2. Chapter 2: Overall Approach for Present Filing.....	14
2.1 Approach for Filing	14
3. Chapter 3: Limited Provisional true up of FY 2020-21.....	16
3.1 Energy Sales.....	16
3.2 Energy Balance and Distribution Loss.....	18
3.3 Energy Requirement.....	19
3.4 Energy Purchase.....	20
3.5 Power Purchase Cost.....	22
3.6 Transmission Charges	23
3.7 Operation and Maintenance Expenses	24
3.7.1 Employee Expenses	24
3.7.2 R&M Expenses.....	25
3.7.3 A&G Expenses.....	25
3.8 Capitalisation.....	27
3.9 Interest on Working Capital	28
3.10 Gross Fixed Assets and Depreciation.....	28
3.11 Interest on Loan.....	29
3.12 Return on Equity	30
3.13 Write off of Bad Debts.....	31
3.14 Non-Tariff Income	31
3.15 Aggregate Revenue Requirement.....	31
3.16 Revenue from sale of power.....	33
3.17 Revenue Gap.....	33
4. Chapter 4: Annual Performance Review (APR) for FY 2021-22.....	34
4.1 Energy Sales.....	34
4.2 Distribution Loss and Energy Balance.....	36
4.3 Energy Purchase.....	38
4.4 Power Purchase Cost.....	40
4.5 Transmission Charges	41
4.6 Operation and Maintenance Expenses.....	42
4.7 Capitalisation.....	43

4.8	Interest on Working Capital	45
4.9	Gross Fixed Assets and Depreciation.....	45
4.10	Interest on Loan.....	46
4.11	Return on Equity	47
4.12	Write off of Bad Debts	47
4.13	Non-Tariff Income (NTI).....	47
4.14	Aggregate Revenue Requirement.....	48
4.15	Revenue from Sale of Power	49
4.16	Revenue Gap.....	50
5.	Chapter 5: Aggregate Revenue Requirement (ARR) and Tariff Determination for FY 2022-23.....	52
5.1	Energy Sales	52
5.2	Distribution Loss and Energy Balance	55
5.3	Energy Purchase.....	58
5.4	Power Purchase Cost.....	60
5.5	Transmission Charges	64
5.6	Operation and Maintenance Expenses.....	65
5.7	Capitalisation.....	66
5.8	Gross Fixed Assets and Depreciation.....	67
5.9	Interest on Working Capital	67
5.10	Interest on Loan.....	68
5.11	Return on Equity	70
5.12	Write off of Bad Debts	70
5.13	Non-Tariff Income	70
5.14	Aggregate Revenue Requirement.....	70
5.15	Revenue from sale of power.....	71
5.16	Revenue Gap.....	73
6.	Chapter 6: Tariff Determination for FY 2022-23.....	74
6.1	Aggregate Revenue Requirement.....	74
6.2	Recovery of Revenue Gap for FY 2022-23.....	76
6.3	Tariff Proposal for FY 2022-23.....	81
6.4	Proposed Wheeling Charges for Open Access transactions for FY 2022-23	85
7.	Chapter 7: Tariff Schedule	87
8.	Chapter 8: Compliance of Directives.....	109
9.	Chapter 9: Prayers	140

Annexure

Annexure 1: Tariff formats.....	125
Annexure 2: Power purchase bills (softcopy only).....	

List of Tables

Table 1: Category-wise Energy Sales (MU) for FY 2020-21	17
Table 2: Actual Distribution Losses for FY 2020-21	18
Table 3: Energy Requirement for FY 2020-21 (MU).....	19
Table 4: Energy Purchase for FY 2020-21 (MU).....	20
Table 5: Energy Purchase from other sources and deviation for FY 2020-21 (MU)..	21
Table 6: Actual Power Purchase Cost for FY 2020-21	22
Table 7: Transmission Charges for FY 2020-21 (Rs. Crore)	24
Table 8: Employee Expenses for FY 2020-21 (Rs. Crore).....	24
Table 9: R&M Expenses for FY 2020-21 (Rs. Crore).....	25
Table 10: A&G Expenses for FY 2020-21 (Rs. Crore).....	26
Table 11: Actual O&M Expenses for FY 2020-21 (Rs. Crore).....	27
Table 12: Capitalisation for FY 2020-21 (Rs. Crore).....	27
Table 13: Interest on Working Capital for FY 2020-21 (Rs. Crore).....	28
Table 14: Depreciation for FY 2020-21 (Rs. Crore).....	29
Table 15: Interest on Loan for FY 2020-21 (Rs. Crore).....	30
Table 16: Interest on Loan for FY 2020-21 (Rs. Crore).....	30
Table 17: Return on Equity for FY 2020-21 (Rs. Crore).....	30
Table 18: Non-Tariff Income for FY 2020-21 (Rs. Crore).....	31
Table 19: Aggregate Revenue Requirement for FY 2020-21 (Rs. Crore).....	32
Table 20: Revenue Gap for FY 2020-21 (Rs. Crore).....	33
Table 21: Category-wise Energy Sales (MU) for FY 2021-22	34
Table 22: Proposed Distribution Loss and Energy Balance for FY 2021-22	36
Table 23: Energy Purchase for FY 2021-22 (MU).....	39
Table 24: Power Purchase Cost for FY 2021-22 (Total Cost in Rs. Cr, Avg. Tariff rate in Rs/kWh).....	40
Table 25: Transmission Charges for FY 2021-22(Rs. Crore)	42
Table 26: O&M Expenses for FY 2021-22 (Rs. Crore).....	42
Table 27: Employee Expenses for FY 2021-22 (Rs. Crore)	43
Table 28: Capitalisation for FY 2021-22 (Rs. Crore).....	44
Table 29: Interest on Working Capital for FY 2021-22 (Rs. Crore).....	45
Table 30: Depreciation for FY 2021-22 (Rs. Crore).....	45
Table 31: Interest on Loan on ongoing projects for FY 2021-22 (Rs. Crore)	46
Table 32: Interest on Loan for FY 2021-22 (Rs. Crore).....	47
Table 33: Non-Tariff Income for FY 2021-22 (Rs. Crore).....	48
Table 34: Aggregate Revenue Requirement for FY 2021-22 (Rs. Crore).....	48
Table 35: Consumer Category-wise revenue projection at existing tariff for 2021-22(Rs. Crore).....	49
Table 36: Revenue Gap for FY 2021-22 (Rs. Crore).....	51
Table 37: Category-wise Energy Sales (MU) for FY 2022-23	53
Table 38: Category-wise Energy Sales growth rate (CAGR basis) (FY 2015-16 to FY 2020-21).....	53
Table 39: Proposed Distribution Loss and Energy Balance for FY 2022-23	55
Table 40: Energy Purchase for FY 2022-23 (MU).....	58
Table 41: RPO Target and RE purchase for FY 2022-23 (MU).....	60
Table 42: Power Purchase Cost for FY 2022-23 (Total Cost in Rs. Cr, Avg. Tariff / rate in Rs/kWh).....	62

Table 43: Transmission Charges for FY 2022-23 (Rs. Crore)	64
Table 44: O&M Expenses for FY 2022-23 (Rs. Crore).....	65
Table 45: Employee Expenses for FY 2022-23 (Rs. Crore)	65
Table 46: Capitalization for FY 2022-23 (Rs. Crore).....	66
Table 47: Depreciation for FY 2022-23 (Rs. Crore).....	67
Table 48: Interest on Working Capital for FY 2022-23 (Rs. Crore).....	67
Table 49: Interest on ongoing Loan for FY 2022-23	68
Table 50: Interest on Loan for FY 2022-23 (Rs. Crore).....	69
Table 51: Non-Tariff Income for FY 2022-23 (Rs. Crore).....	70
Table 52: Aggregate Revenue Requirement for FY 2022-23 (Rs. Crore).....	70
Table 53: Consumer Category-wise revenue projection at existing tariff for 2022-23 (Rs. Crore).....	72
Table 54: Revenue from surplus sale and total revenue projection for FY 2022-23 (Rs. Crore).....	72
Table 55: Revenue Gap for FY 2022-23 (Rs. Crore).....	73
Table 56: Combined ARR of MSPDCL proposed for FY 2022-23 (Rs. Crore).....	74
Table 57: Revenue Gap for FY 2022-23 at existing tariff (Rs Crore)	75
Table 58: Projected ACOS and Avg. Realization FY 2022-23 at existing tariff (Rs. Crore)	75
Table 59: Average Tariff Increase Required (FY 2022-23).....	79
Table 60: Existing & Proposed Category-wise Tariffs for FY 2022-23	84
Table 61: ARR for Wires Business for FY 2022-23	85
Table 62: Proposed Wheeling Charges for FY 2022-23	86

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 2020-21, it has increased to 251 MW (as per Central Electricity Authority, Executive Summary on power sector: March-2021).

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 NTPC, 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 NTPC Bongaigaon, NEEPCO, NHPC, OTPC-I and II, and BGTPP of Tripura State Electricity Corporation Limited (TSECL) is currently around 391.14 MW. However, currently MSPDCL's share is around 254.38 MW from installed and operative central generating stations' projects.

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 Substations in Manipur is 822.15 MVA and the length of the 33 kV lines is 1753.201 ckt km.

Currently, MSPDCL has 192 Feeders of 11 kV and above (rural and urban) and 8205 numbers of DTs (rural and urban).

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. The Petition for approval of Limited Provisional True up of FY 2018-19, Annual Performance Review for 2019-20 and determination of ARR and Tariff for the FY 2020-21 was filed by MSPDCL in December 2019 and the Order was issued on 20 March, 2020 in Case No Petition (ARR & Tariff) No. 2 of 2020. Subsequently, the Commission issued order for limited provisional True up of FY 2019-20, Annual Performance Review for 2020-21 and determination of ARR and Tariff for the FY 2021-22 on 26 April, 2021 in Case No Petition (ARR & Tariff) No. 3 of 2021.

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 2020-21, Annual Performance Review for 2021-22 and determination of ARR & Tariff for FY 2022-23, in accordance with the JERC (MYT) Regulations, 2014, and its subsequent amendments, to enable the issuance of the Tariff Order for FY 2022-23.

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 2022-23 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 2020-21, annual performance review for 2021-22 and determination of ARR & Tariff for FY 2022-23.

1.4 Contents of this Petition

This Petition covers the provisional figures for Limited True up of FY 2020-21, annual performance review for FY 2021-22, allocation of the proposed ARR for FY 2022-23 into Wires ARR and Supply ARR, and determination of Tariff for FY 2022-23.

2. Chapter 2: Overall Approach for Present Filing

MSPDCL is filing the present petition for Limited Provisional True up of FY 2020-21, annual performance review for FY 2021-22 and determination of ARR and Tariff for FY 2022-23.

2.1 Approach for Filing

The present filing for the Limited Provisional True up of FY 2020-21, annual performance review for FY 2021-22 and determination of ARR and Tariff for FY 2022-23 is based on the principles specified in the JERC (Multi Year Tariff) Regulations, 2014 notified on 9 June, 2014, and its subsequent amendments.

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 subsequent years and getting it audited by a statutory auditor.

Thus, due to aforesaid reasons, the annual accounts for FY 2020-21 could not be finalized; hence, MSPDCL is unable to submit the final True up Petition for FY 2020-21 in accordance with the JERC (MYT) Regulations, 2014. As and when the accounts of FY 2020-21 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 2020-21, as well as the actual (un-audited) O&M expenses and finance related costs for FY 2020-21. Based on the above, a limited provisional True up Petition has been prepared for FY 2020-21. As only limited provisional True up for FY 2020-21 is being claimed, MSPDCL has not requested for pass through of the provisional Revenue Gap of FY 2020-21 and consequent sharing of gains and losses for FY 2020-21 along with this Petition, and the same shall be claimed at the time of seeking final true-up for FY 2020-21 based on audited accounts.

The JERC (MYT) Regulations, (First Amendment) 2019 has the provision for filing of Annual Performance Review (APR) for the ongoing year, i.e., FY 2021-22 and accordingly MSPDCL is filing APR for FY 2021-22 along with this Petition. Based on the first six months ARR data there will be deviations in ARR components than that of approved ARR for FY 2021-22.

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 available power in non-winter months and requires more power than available in winter months. MSPDCL is managing this seasonal deviation by adopting the banking facility (banked in summer and withdrawing in winter) and partly by sale and purchase of power from energy exchanges.

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 2020-21 and consequent sharing of gains and losses for FY 2020-21 along with this Petition, as only limited provisional true-up for FY 2020-21 has been claimed in this Petition. The Hon'ble Commission has already approved the ARR for FY 2022-23 (last year of present control period) in the MYT Order dated 12 March, 2018 in Petition (ARR & Tariff) No. 1 of 2018. However, based on the current data and approved orders of past two years, there are some deviations from the projected ARR approved in MYT order and accordingly, revised ARR is being proposed for FY 2022-23. 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 2022-23. The trend of actual sale and purchase for FY 2020-21 (Previous year / true-up year) and proposed now for FY 2021-22 (Current year) are considered while projecting the data for FY 2022-23 (Future year/ ensuring year). The same philosophy has been followed for other components of ARR also. However, the Petitioner respectfully submits that, capital expenditure and capitalization has been projected as per present status of the on-going projects and planning of project implementation made by MSPDCL.

3. Chapter 3: Limited Provisional true up of FY

2020-21

MSPDCL is a Distribution Licensee, which fulfils the need for electricity of the consumers in the State of Manipur. As explained earlier, MSPDCL is hereby submitting a limited provisional true-up of FY 2020-21 based on the actual sales, power purchase quantum and costs, capitalisation, O&M expenses, and other expenditure for FY 2020-21. As only limited provisional True up for FY 2020-21 is being claimed, MSPDCL has not requested for pass through of the provisional Revenue Gap of FY 2020-21 and consequent sharing of gains and losses for FY 2020-21 along with this Petition, and the same shall be claimed at the time of seeking final true-up for FY 2020-21 based on audited accounts, if any. The main objective of this limited provisional true-up Petition is to update the Commission regarding the Revenue Gap for FY 2020-21 based on the actual expenses and revenue after considering the subsidy. It may be noted that the present true-up Petition is not based on the comparison of the actual expenses and revenue for FY 2020-21 with the expenses and revenue considered by the Hon'ble Commission in the Annual Performance Review (APR) of FY 2020-21 as decided in the JERC tariff Order dated 26 April 2021; as in that Order, the Hon'ble Commission has not passed any of the impact (gap/surplus) of the APR, and has reviewed only the values related to components of APR. Therefore, ARR for FY 2020-21 as approved in the Tariff order for FY 2020-21 (in case of Petition (ARR & Tariff) No. 2 of 2020) has been referred as 'Approved' in the subsequent section.

3.1 Energy Sales

MSPDCL caters to a diverse consumer mix comprising LT domestic, LT commercial, HT commercial, LT Industry, HT Industry, Public Street Lighting, Public Water Works 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 (in ARR order and APR order dated 20.3.2020) for FY 2020-21 is given in the Table below:

Table 1: Category-wise Energy Sales (MU) for FY 2020-21

Sl. No	Category	Approved in ARR order	Approved in APR order	Actual
A	LT Supply			
1	Kutir Jyoti	3.88	3.98	4.05
2	LT Domestic	417.37	425.05	449.11
3	Commercial LT	61.18	56.77	62.32
4	Cottage and Small Industry	21.49	18.90	21.63
5	Public Lighting	3.96	3.62	3.62
6	Public Water-works	1.37	1.27	1.27
7	Irrigation and Agriculture	1.25	1.14	1.14
	LT Supply Sub Total	510.50	510.73	543.14
B	HT Supply			
1	Commercial	20.55	19.05	21.12
2	Medium Industry	4.36	3.81	4.36
3	Large Industry	8.12	7.91	9.67
4	Bulk Supply	85.41	87.75	90.33
5	Public Water-works	22.15	22.37	22.37
6	Irrigation and Agriculture	0.81	0.74	0.74
	HT Supply Sub Total	141.40	141.62	148.58
TOTAL		651.91	652.32	691.72

The actual energy sold by MSPDCL in FY 2020-21 is 691.72 MU, which is slightly higher than the approved sales of 652.32 MU in APR Order for FY2020-21. In the FY 2018-19, several Kutir Jyoti consumers have been shifted to the normal domestic category consumers and therefore, the consumption is stable in this category compared to earlier years. Further due to increase in consumer number in domestic category, the sales to this category have been increased. Consumption in the public lighting has slightly reduced compared to approve due to replacement of sodium / mercury vapour street lights to LED based street lights. Overall LT sales have been 543.14 MU as against the approved sales of 510.73 MU in APR Order for FY 2020-21.

In the case of HT category, the sales to HT commercial, bulk supply and large industries has been slightly higher than the approved figures whereas the irrigation and agriculture sales is slightly lower than approved sales for FY 2020-21. Overall HT sales were 148.58 MU as against the approved figures of 141.40 MU.

MSPDCL therefore, requests the Hon'ble Commission to approve the actual category-wise sales of 691.72 MU, as shown in the Table above.

3.2 Energy Balance and Distribution Loss

The computation of actual Distribution losses for FY 2020-21 is shown in the Table below:

Table 2: Actual Distribution Losses for FY 2020-21

Sl. No.	Particulars	Unit	Actuals
	Total Power Purchase CGS	MU	1088.95
	Energy Sold to IEX	MU	-111.41
	IEX Purchase	MU	82.22
	Banking to outside utilities	MU	-161.30
	Return of Banked Energy	MU	100.09
1	Total power purchase	MU	998.53
2	Inter-State transmission loss in NER for FY 2020-21	MU	28.38
3	Net Power Purchase_ at State periphery (1-2)	MU	970.17
4	UI Overdrawal	MU	12.96
5	UI Underdrawal	MU	-11.46
6 = (3 to 5)	Net power available at State periphery actual	MU	971.665
7	Intra State Transmission Loss %	%	8.894%
8	Intra State Transmission Loss (MU)	MU	86.42
9 = (6-8)	Net Energy requirement at DISCOM periphery for sale within state	MU	885.25
10	Energy sale within state	MU	691.72
11 = (9 -10)	Distribution Loss	MU	193.52
12	Distribution Losses w.r.t Energy Input at DISCOM Periphery	%	21.86%

The actual Distribution Losses of 21.86% achieved by MSPDCL in FY 2020-21 is slightly higher than 21.19% approved by Hon'ble Commission in its APR order dated 20.3.2020.

The quantum of distribution losses is primarily due to the higher LT line lengths and the hilly / complex terrain of Manipur State. The long LT distribution lines and distribution at 11 kV are leading to higher distribution losses in the state. In the recent past, due to various initiatives in rural electrification, complete (100%) electrification at household level has been

completed by MSPDCL. However, it is pertinent to note that the new consumer addition happened in most remote areas by extending the distribution network of MSPDCL. Due to smaller load and low consumption level, technical line losses would be quite high in those areas. MSPDCL has no role in this peculiar situation of high technical losses. It is just because of addition of new consumers in remote areas and difficult geographical condition. MSPDCL is trying its best to serve them continuously and maintain these systems with its workforce efficiently. With the present state of complex terrain, long LT distribution lines, scatter LT domestic consumers, the actual LT distribution losses in Manipur are slightly higher than the Commission approved distribution losses as given in its APR order.

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

3.3 Energy Requirement

The actual energy requirement for FY 2020-21 as compared to the energy requirement approved by the Hon'ble Commission in the ARR / Tariff Order for FY 2020-21, is shown in the Table below:

Table 3: Energy Requirement for FY 2020-21 (MU)

Sl. No.	Particulars	Approved in ARR Order	Approved in APR Order	Actuals
1	Energy Sales	651.91	652.36	691.72
2	Distribution Loss	25.40%	21.19%	21.86%
3	Distribution loss Quantum	211.55	175.37	193.52
4	Energy Requirement at Distribution Periphery for sale within the State	863.46	827.73	885.25

MSPDCL respectfully submits that the actual energy requirement was 885.25 MU, which is slightly higher than the 863.46 approved by the Hon'ble Commission in its ARR Order for FY 2020-21. However, in the APR Order for FY 2020-21 dated 20.03.2021, the energy requirement at distribution periphery as approved by the Hon'ble Commission was 908.53 MU. It is important to mention here that the data available from North Eastern Region Power Committee (NERPC), the availability at state periphery (schedule and

actual), are considered from the DSM bill prepared by NERPC (please refer Format F1d for month wise details). So, the actual availability at state periphery of 885.25 is finalised and firm figure as per bills received by MSPDCL. The energy requirement at distribution periphery can be contested because of not having proper metering at transmission (MSPCL) and distribution (MSPDCL) intersection point. MSPDCL has considered the intra-state transmission loss as per approved figure for FY 2020-21 as given in APR.

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 2020-21 in the ARR and Tariff Order for FY 2020-21, are as detailed in the Table below:

Table 4: Energy Purchase for FY 2020-21 (MU)

Sl. No.	Source of Power	Approved in APR Order	Actuals
A	CGS – NEEPCO		
1	Kopili -I HEP	58.00	0.00
2	Kopili-II HEP	7.02	0.00
3	Khandong HEP	14.50	4.23
4	Ranganadi HEP	102.22	116.10
5	Doyang HEP	13.00	15.52
6	Assam GBPP	88.00	105.72
7	AGTPP	53.00	70.82
B	CGS – NHPC		
1	Loktak HEP Purchased Power	165.00	185.08
2	Loktak HEP- Free Power	55.20	72.78
C	Others		
1	Baramura GBPP Unit IV and V	62.20	46.67
2	OTPC Palatana	236.85	279.09
D	New Plants		
1	NTPC Bongaigaon Unit I to III	158.20	149.66
2	Monarchak Gas Based PP (NEEPCO)	-	-
3	Kameng HEP Stage I	-	-
4	Kameng HEP Stage II	-	-
5	Pare HEP	38.81	43.29

Sl. No.	Source of Power	Approved in APR Order	Actuals
6	Tuirial HEP	-	-
7	Lower Subansiri Stage I	-	-
8	Lower Subansiri Stage II	-	-
9	Renewable – Solar	-	-
10	Renewable – Non Solar	-	-
	Sub -Total	1052.00	1088.95
	Total Purchase	1052.00	1088.95

As can be seen from the above Table, the actual power purchase quantum from CGS in FY 2020-21 was 1088.95 MU, which is lower than the approved quantum of 1052.00 MU. The reason for this deviation is due to non-availability of power from CGS stations or deviation in load requirement due to seasonal variation. The requirement in the state is higher in winter months when hydro availability is lower and MSPDCL has to purchase from outside to meet the state demand. To manage this, purchase through banking mechanism has been planned. Actually, MSPDCL banked available power in summer months to use it in winter months when availability is low. Also, actual deviation is managed by MSPDCL by way of purchase/sell of power from IEX as per requirement or by availing the banking facility with other traders (for detailed monthly trend of IEX and banking sale / purchase please refer Format F1a). The detailed energy purchase is given below:

Table 5: Energy Purchase from other sources and deviation for FY 2020-21 (MU)

Sl. No.	Source of Power	Approved in APR Order	Actuals
1	Total Purchase from CGS	1052.00	1088.95
	Energy Sold to IEX		-111.41
	IEX Purchase		82.22
	Banking to outside utilities		-161.30
	Return of Banked Energy		100.09
	Total power purchase		998.53
2	NER Pool losses	2.57%	2.84%*
3	NER Pool losses	27.04	28.38
4	Net Power Purchase	1024.96	970.17
5	IEX Purchase @state periphery	52.60	

Sl. No.	Source of Power	Approved in APR Order	Actuals
6	Return of Banked Energy + (i/c previous year) @state periphery	7.57	
7	Banking to outside utilities @state periphery		
8	Energy Sold to IEX @state periphery	-176.60	
9	Net Available Energy		970.17
10	UI Overdrawl		12.96
11	UI Underdrawl		-11.46
12	Net Power Available at State Periphery	908.53	971.665

*derived based on energy schedule figure

From above it can be seen that the net power purchase from all sources for FY 2020-21 is 970.17 MU after NER losses. After considering the UI transaction, the net electricity available at the state periphery is 971.665 MU.

MSPDCL requests Hon'ble Commission to approve the actual power purchase quantum from CGPs and other sources for Limited provisional truing up for FY 2020-21.

3.5 Power Purchase Cost

The actual Power Purchase cost as against the power purchase cost approved in the ARR /Tariff Order for FY 2020-21 is shown in the Table below:

Table 6: Actual Power Purchase Cost for FY 2020-21

Sl. No	Source of Power	Approved in APR for FY 2020-21		Actuals for FY 2020-21	
		Total Cost (Rs Cr)	Avg Rate (Rs/kWh)	Total Cost (Rs Cr)	Avg Rate (Rs/kWh)
A	CGS – NEEPCO				
1	Kopili -I HEP	6.67	1.15	0.04	0
2	Kopili-II HEP	1.00	1.42	0.00	0
3	Khandong HEP	2.47	1.70	1.13	2.68
4	Ranganadi HEP	24.80	2.43	25.57	2.20
5	Doyang HEP	6.51	5.01	8.32	5.36
6	Assam GBPP	36.78	4.18	36.96	3.50
7	AGTPP	25.18	4.75	24.59	3.47
B	CGS – NHPC				
1	Loktak HEP Purchased Power	58.58	3.55	58.97	3.19
2	Loktak HEP- Free Power	0.00	0.00	0.00	0.00

Sl. No	Source of Power	Approved in APR for FY 2020-21		Actuals for FY 2020-21	
		Total Cost (Rs Cr)	Avg Rate (Rs/kWh)	Total Cost (Rs Cr)	Avg Rate (Rs/kWh)
C	Others				
1	Baramura GBPP Unit IV and V	18.35	2.95	18.03	3.86
2	OTPC Palatana	75.21	3.18	100.76	3.61
D	New Plants				
1	NTPC Bongaigaon Unit I to III	131.11	8.30	156.43	10.45
2	Monarchak Gas Based PP (NEEPCO)	-	-		
3	Kameng HEP Stage I	-	-		
4	Kameng HEP Stage II	-	-		
5	Pare HEP	12.85	3.31	21.67	0.00
6	Tuirial HEP	-	-		
7	Lower Subansiri Stage I	-	-		
8	Lower Subansiri Stage II	-	-		
9	Renewable – Solar	-	-		
10	Renewable – Non Solar	-	-		
	Sub -Total	397.43	3.78	452.48	4.16
11	IEX Sale	-49.45		-24.65	2.21
12	IEX Purchase	16.30		22.16	2.70
13	UI Over drawl			3.55	2.74
14	UI Under drawl			-4.09	3.57
15	Supplementary bills	20.00			
16	Late payment surcharge				
	Total	384.27	4.11	454.32	4.54

The total actual power purchase cost including UI over-drawal and under-drawal charges, purchase cost from IEX etc. is Rs 454.23 Cr for FY 2020-21 as against the commission's approval of Rs 384.27 Cr. However, the above cost also includes outside sale income through IEX of Rs 24.65 Cr (negative sign in the above table means income).

MSPDCL requests the Hon'ble Commission to approve the actual power purchase costs for FY 2020-21, as shown in the table above.

3.6 Transmission Charges

The transmission charges include the charges paid to PGCIL, NERLDC, MSPCL and SLDC. The summary of transmission charges approved by the

Commission and the actual charges paid by MSPDCL for FY 2020-21 is as follows:

Table 7: Transmission Charges for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	Approved in APR Order	Actual
1	PGCIL Charges	79.11	71.47
2	MSPCL Charges	76.39	65.25*
3	SLDC Charges	0.78	0.70
4	NERLDC Charges	0.67	0.64
	Total	156.95	138.06

* Considering MSPCL charges as paid by MSPDCL before reconciliation with MSPCL.

MSPDCL requests the Hon'ble Commission to approve the actual Transmission Charges of Rs. 138.06 for FY 2020-21, 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 2020-21, 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 2020-21 as compared with the approval in the Tariff Order for FY 2020-21 are shown in the Table below:

Table 8: Employee Expenses for FY 2020-21 (Rs. Crore)

Employee Category	Approved in ARR Order	Approved in APR Order	Actuals
Total Employee Expenses	99.69	73.38	63.15

The actual employee expenses are lower than the employee expenses approved by the Hon'ble Commission for FY 2020-21. Actual recruitment of employee as envisaged earlier was not possible during the previous year. Also,

payment of arrears as estimated earlier due to seventh pay commission was not implemented during the year under review. MSPDCL requests the Hon'ble Commission to approve the actual Employee Expenses of Rs. 63.15 Crore for FY 2020-21.

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 2020-21 as compared to the approved expenses are as follows:

Table 9: R&M Expenses for FY 2020-21 (Rs. Crore)

Particulars	Approved in ARR Order	Approved in APR Order	Actuals
R&M Expenses	13.07	14.61	10.91

The actual R&M expenses are lower than the approved values by the Hon'ble Commission for FY 2020-21. MSPDCL therefore, requests the Hon'ble Commission to approve the actual R&M expenses of Rs. 10.91 Crore for FY 2020-21.

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 2020-21 are as follows:

Table 10: A&G Expenses for FY 2020-21 (Rs. Crore)

Sl. No	Particulars	Approved in ARR Order	Approved in APR Order	Actual
1	Advertisement			0.48
2	Auditors Fee			0.01
3	Consultancy charges & Technical Fees			0.16
4	Conveyance and Travels			0.01
5	JERC License Fee			0.20
6	Ex-Gratia			0.16
7	Hiring of Vehicle			1.54
8	Insurance			
9	Legal Charges			0.05
10	License and Registration fee			0.01
11	Miscellaneous Expenses			2.91
12	Oil DG set & Transformer			1.12
13	Printing and Stationary			0.06
14	Rent, Rate and Taxes			0.47
15	Telephone			0.24
16	Training Expenses			
17	Vehicle running expenses			
18	Outsourced Manpower - Qness			
	Total	9.71	9.55	7.40

The actual A&G expenses in FY 2020-21 are lower than the expenses approved in ARR for FY 2020-21. MSPDCL, therefore, requests the Hon'ble Commission to approve the actual A&G expenses of Rs. 7.40 Crore for FY 2020-21.

The total O&M expenses incurred in FY 2020-21 are shown in the Table below:

Table 11: Actual O&M Expenses for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	Approved in ARR Order	Approved in APR Order	Actual
1	Employee Expenses	99.69	73.38	63.15
2	R&M Expense	13.07	14.61	10.91
3	A&G Expense	9.71	9.55	7.40
	Total	122.47	97.54	81.46

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 2020-21. Reduction in Employee expenses is the main reason for this difference. MSPDCL requests the Hon'ble Commission to approve the actual O&M expenses of **Rs. 81.46 Crore** for FY 2020-21.

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 Central /State Government for creation of capital asset, with the balance funding sourced from loans. Hon'ble Commission approved the capitalization of Rs 32.22 Crore in the ARR order. Details of actual capitalization achieved in FY 2020-21 vis-à-vis the capitalisation approved by the Hon'ble Commission is shown in the Table below:

Table 12: Capitalisation for FY 2020-21 (Rs. Crore)

Sl. No	Name of the Scheme	Approved	Actuals
1	Miscellaneous items		12.19
	Total	32.22	

MSPDCL requests the Hon'ble Commission to kindly approve the actual capitalization of Rs. 12.19 Crore for FY 2020-21. MSPDCL has continuing execution of old projects and among them as per completion of the schemes, claiming the capitalization. So, the Petitioner humbly requests the Commission to approve the capitalization of the said projects, which are old and ongoing schemes only.

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 2020-21, is shown in the Table below:

Table 13: Interest on Working Capital for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	Approved in ARR Order	Approved in APR Order	Actuals
1	O&M expenses for 1 month	Rs. 5.25 Crs of IWC Disallowed by the Hon'ble Commission	Rs. 6.26 Crs of IWC Disallowed by the Hon'ble Commission	6.79
2	Maintenance spares @ 1% of GFA			7.56
3	Receivables equivalent to one month of expected revenue at prevailing tariffs			33.83
4	Consumer Security Deposit			14.88
	Total			33.31
	SBAR as approved			13.45%
	Interest on Working Capital			4.48

MSPDCL requests the Hon'ble Commission to approve the IoWC of **Rs. 4.48 Crore** for FY 2020-21.

3.10 Gross Fixed Assets and Depreciation

The opening balance of Gross Fixed Asset (GFA) for FY 2020-21 has been considered along with capitalization. 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 2020-21.

The Depreciation expenses for FY 2020-21 are shown in the Table below:

Table 14: Depreciation for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	Approved in APR Order	Actual
1	Opening GFA	762.28	744.31
2	Addition during the Year	0	12.19
3	Retirement	0	
4	Closing GFA	762.28	756.50
5	Average GFA	762.28	750.40
6	Average Rate of Depreciation	2.42	
7	Depreciation	18.45	
8	10% of Gross Depreciation	1.84	13.06 (asset wise calculated)

MSPDCL respectfully submits that the depreciation as calculated above, is based on actual GFA and GFA addition during the year. Actual calculated depreciation is considered on assets which are not funded through grants and consumer contribution, if any.

MSPDCL requests the Hon'ble Commission to approve the Depreciation of **Rs. 13.06 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 Central Government's grant. 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 as per principal repayment made, and the repayment has been considered proportionately based on the opening loan balance.

The details of loans with the computation of Interest on loan are shown in the Table below:

Table 15: Interest on Loan for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	REC 1	REC 2	Total
1	Opening Loan	31.904	12.3003	44.20
2	Addition during the year	0	0	0.00
3	Repayment during the year	3.988	2.9049	6.89
4	Closing Loan	27.916	9.3954	37.31
5	Average Loan	29.91	10.84785	40.76
6	Rate of Interest	11.70%	10.20%	0.22
7	Interest & Finance Charges	3.652	1.70	5.36
8	Interest on CSD			0.00
	Total Interest	3.652	1.70	5.36

Additionally, MSPDCL has availed loan from PFC and REC for “COVID loan under Aatma Nirbhar Bharat”, for which interest paid is of Rs. 2.72 Crore against approved values of 2.67 Crores in APR Order for FY 2020-21. The table below shows the details for interest on loan based on actuals for FY 2020-21.

Table 16: Interest on Loan for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	Approved in APR Order	Actual
1	PFC/REC loan on ongoing projects	4.84	5.36
2	COVID loan under Aatma Nirbhar Bharat	2.65	2.72
3	Loan for purchase of Prepaid meters	2.39	-
4	Loan for LED street light & High Mast	0.291	-
	Total Interest	10.09	8.07

MSPDCL requests the Hon’ble Commission to kindly approve the interest on loan of **Rs. 8.07 Crore** for FY 2020-21. The interest calculation would be finalised in the time of preparation of annual account and can be incorporated in the final true-up petition.

3.12 Return on Equity

As there is no fresh equity infusion by MSPDCL in the FY 2020-21, the Return on Equity (RoE) for FY 2020-21 is considered same as submitted by MSPDCL in earlier petitions.

The RoE for FY 2020-21 is shown in the Table below:

Table 17: Return on Equity for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	Approved in APR Order	Actual
1	Return on Equity	1.56	1.95

MSPDCL requests the Hon'ble Commission to approve the Return on Equity of **Rs. 1.95** Crore for FY 2020-21.

3.13 Write off of Bad Debts

MSPDCL has considered “Nil” Write-off of Bad Debts for FY 2020-21, as annual account is not yet finalised and requests this Hon'ble Commission to consider the actual bad debts figure after finalization of annual account in its true-up petition.

3.14 Non-Tariff Income

The Hon'ble Commission approved Non-Tariff Income of Rs. 7.25 Crore in the Tariff Order for FY 2020-21 and had revised and approved Rs. 6.48 Crores in APR Order for FY 2020-21. The actual Non-Tariff Income earned by MSPDCL in FY 2020-21 was **Rs. 6.17 Crore**, as shown in the Table below:

Table 18: Non-Tariff Income for FY 2020-21 (Rs. Crore)

Sl. No	Particulars	Approved in APR Order	Actuals
1	Interest from Bank		4.84
2	Miscellaneous Receipt		0.39
3	Fees from Tender forms		0.12
Total		6.48	6.17

MSPDCL requests the Hon'ble Commission to approve the actual Non-Tariff Income of **Rs. 6.17** Crore for FY 2020-21.

3.15 Aggregate Revenue Requirement

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

Table 19: Aggregate Revenue Requirement for FY 2020-21 (Rs. Crore)

Sl. No	Particulars	Approved in ARR Order	Approved in ARR Order	Actuals
1	Fuel Cost			
2	Power Purchase Cost	376.51	384.27	454.32*
3	Inter-State Transmission Charges	61.53	79.11	71.47
4	Intra-State Transmission Charges	77.01	76.39	65.25
5	SLDC & NRLDC Charges	7.86	1.45	1.34
6	Employee Cost	99.69	73.38	63.15
7	R&M Expenses	13.07	14.61	10.91
8	Administration and General Expenses	9.71	9.55	7.40
9	Depreciation	1.84	1.84	13.06
10	Interest and Finance Charges	4.24	10.09	8.07
11	Interest on Working Capital	-	-	4.14
12	Write off of bad debts	-	-	-
13	Return on Equity	1.56	1.56	1.95
14	Add: Income Tax			
14	Less: Non-Tariff Income	7.25	6.48	6.17
15	Less: Efficiency Gains	40.00	40.00	
16	Net ARR	605.76	605.77	695.23

* Net power purchase cost after reducing the gross power purchase cost by Rs 24.65 Crore of outside sale (IEX) income

The ARR for FY 2020-21 is **Rs. 695.23** Crore, which is higher than the ARR approved by the Hon'ble Commission for FY 2020-21 in its Tariff Order. MSPDCL therefore, humbly requests the Hon'ble Commission to approve the same.

3.16 Revenue from sale of power

The revenue from sale of power to consumers for FY 2020-21 was Rs. 423.46 Crore as approved by Hon'ble Commission in its APR order for FY 2020-21. The actual revenue from sale of power to consumers in FY 2020-21 is Rs. 406 Crore.

MSPDCL requests the Hon'ble Commission to approve the same and the same will be finalised after the annual account of MSPDCL gets audited.

3.17 Revenue Gap

The Revenue Gap of MSPDCL for FY 2020-21 as against the Revenue Gap approved by the Hon'ble Commission in the APR Order for FY 2020-21 is shown in the Table below:

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

Sl. No	Particulars	Approved in APR Order	Actuals
1	Net ARR after considering outside sale income	605.77	695.23
2	Total Revenue from consumer tariff	423.46	406.00
3	Revenue Gap before Govt. Subsidy (1-2)	182.31	289.23
4	State Government Revenue Subsidy	216.00	257.87
5	Revenue Gap/Surplus (4-3)	+33.69	-31.36

As can be seen from the above Table, the Unmet Revenue Gap for FY 2020-21 is Rs. 31.36 Crore after considering state Government subsidy of Rs 257.87 Crore. The final figures will be considered after reconciliation at the time of annual audit of accounts.

The actual revenue gap can only be finalized during the final Truing up process for FY 2020-21, 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 2021-22

The Petitioner humbly submits that the present APR is based on actual provisional expenses of FY 2020-21 and first six-month data available for FY 2021-22. The comparison of the projected expenses and revenue has been made with the expenses and revenue considered by Hon'ble Commission in the ARR of FY 2021-22 as approved in the JERC tariff Order in Petition (ARR & Tariff) No. 3 of 2021 dated 26 April 2021 (henceforth referred as 'Approved' order with reference to FY 2021-22). However, the Petitioner requests Hon'ble Commission to review the expenses and revenue for FY 2021-22 based on the trend observed as per actual data.

4.1 Energy Sales

MSPDCL caters to a diverse consumer mix comprising LT domestic, LT commercial, HT commercial, LT Industry, HT Industry, public lighting, public water works and agriculture consumers. LT Domestic category is the largest consumer category and comprises around 65% - 68% 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 sales as projected for the whole year; actual category-wise energy sales for six months as compared to the energy sales approved by the Hon'ble Commission for FY 2021-22 is given in the Table below:

Table 21: Category-wise Energy Sales (MU) for FY 2021-22

Sl. No.	Category	FY 2021-22		
		Approved in ARR Order	Six Months Actual	Revised Projection
A	LT Supply			
1	Kutir Jyoti	4.10	1.95	4.13
2	LT Domestic	441.28	222.88	462.22
3	Commercial LT	59.00	19.40	63.57
4	Cottage and Small Industry	19.47	11.12	22.28

		FY 2021-22		
Sl. No.	Category	Approved in ARR Order	Six Months Actual	Revised Projection
5	Public Lighting	3.86	1.99	3.66
6	Public Water-works	1.29	0.69	1.28
7	Irrigation and Agriculture	1.15	0.60	1.15
	LT Supply Sub Total	530.15	258.63	554.16
B	HT Supply			
1	Commercial	19.98	10.92	21.54
2	Medium Industry	3.92	2.35	4.49
3	Large Industry	8.15	4.98	10.15
4	Bulk Supply	90.19	45.50	92.14
5	Public Water-works	23.99	12.66	23.49
6	Irrigation and Agriculture	0.75	0.38	0.75
	HT Supply Sub Total	146.98	76.79	152.55
	Total	677.13	335.42	706.71

The Commission has approved the energy sales of 677.13 MU for FY 2021-22. Based on the actual sales of first six months (i.e. up to 30 September), the revised projection of energy sales by MSPDCL for FY 2021-22 is 706.71 MU. In present year, the effect of COVID-19 pandemic, which resulted in a lockdown including in the state of Manipur during second wave, is reducing and economy is slowly returning to its normal level. It is therefore, well understood that commercial and industrial establishment faced severe problem due to lockdown and several units remained closed during the lockdown period in the previous year. As a result, the energy consumption is increasing but the pace is very low. In this condition, it is expected that the whole year consumption will be almost similar to past year's consumption; without much difference. It is expected that the impact will not be much and will be higher than last year's figure.

Considering the above consequences and past growth rates across the different consumer categories, assumptions are made for projecting the energy sales for FY 2021-22. Based on the same, energy sales growth rates have been assumed over the actual sales in FY 2020-21. The estimated consumer category wise growth rates are given below:

Consumer category	Growth rate
Kutir Jyoti	2%

Consumer category	Growth rate
Domestic	2%
Commercial	2%
Public lighting LT	1%
Public waterworks LT	0.08%
Agriculture and irrigation LT	1%
Cottage and small industry	3%
Commercial HT	2%
Public waterworks HT	5%
Agriculture HT	1%
Medium Industry HT	3%
Large Industry HT	5%
Bulk Supply HT	2%

Accordingly, MSPDCL requests the Hon'ble Commission to approve the revised energy sales of **706.71 MU** for FY 2021-22.

4.2 Distribution Loss and Energy Balance

Projected distribution loss for FY 2021-22 is estimated based on the actual distribution loss achieved for FY 2020-21, and the loss trajectory approved by the Hon. Commission for the MYT control period as well as approved in last year's ARR order. Based on the estimated sales for the current financial year, 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 financial year is as follows:

Table 22: Proposed Distribution Loss and Energy Balance for FY 2021-22

	Particulars	Calculation	FY 2021-22 Approved in ARR		FY 2021-22 Revised projection	
			%	MU	%	MU
1	Energy Sales					
	a) LT Sales	A1		530.15		554.16
	b) HT Sales at 11kV	A2		146.98		152.55
	c) HT Sales at 33kV	A3				
	c) EHT Sales	A4				
	Total Energy Sales	A		677.13		706.71
2	Distribution Losses					
	a) Distribution losses at 33kV level	B1				

	Particulars	Calculation	FY 2021-22 Approved in ARR		FY 2021-22 Revised projection	
			%	MU	%	MU
	b) Distribution losses in HT 11kV and LT system combined	B2	20.50%	174.60	21.30%	191.27
	Total Distribution Losses	B		174.60		191.27
3	Energy requirement at T-D boundary					
	a) 11kV and LT energy requirement combined	$C1 = (A1+A2)/(1-B)$		851.73		897.98
	b) HT 33kV energy requirement	$C2 = A3/(1-B1)$				
	Total energy requirement at T-D boundary	C = C1 + C2		851.73		897.98
4	Intra-State Transmission Losses	D	8.895%	83.16	8.50%	83.42
5	Energy requirement of EHT consumers	$E = A4/(1-D)$				
6	Energy Requirement of Distribution system consumers after grossing up for Intra-State Transmission losses	$F = C/(1-D)$		943.88		981.40
	Outside sale/(Purchase)			50.13		-23.83
7	Energy Requirement at state periphery	G = E + F		985.01		957.57
8	Inter-State Transmission Losses	H	2.57%	25.98	3.20%	31.66
9	Total Energy requirement Additional Purchase / (Sales)	I = G/(1 - H)		1011.01		989.22
10	Total Energy available	J		1011.01		989.22
11	Surplus / (Deficit)	J - I		0.0		0.00

MSPDCL has achieved the distribution loss of 21.86% in FY 2020-21. For the FY 2021-22, Hon. Commission has approved the distribution loss of 20.5%. MSPDCL currently proposes the distribution loss of 21.30% for FY 2021-22. MSPDCL requests Hon'ble Commission to consider the proposed distribution loss considering the high LT network and low density of consumers. The detailed reasoning is already given in the previous chapter.

Based on the projected sales to consumers, projected distribution loss, interstate (as per average loss data from NERLDC) and intra state losses (as

approved), projected power purchase and 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. Considering the present six months' figure of banking and power exchange sale / purchase data, the same has been projected for the whole year. It is again important to mention that banking sale to other utilities have been made in summer months which will be used in winter months to meet the higher demand of the state's consumers.

4.3 Energy Purchase

MSPDCL receives 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 2021-22 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 order. Due to dam related problem in Kopili HEP, no power was available from the project. Recently, power supply from Kopili -II HEP has been started. So, small quantum has been considered from the same during FY 2021-22.

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 2021-22, 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 2020-21, year on year growth has been considered based on the planned allocation for projecting the power purchase for current financial year. Accordingly, the revised energy purchase has been proposed. The approved and proposed energy purchase for FY 2021-22 is detailed in the Table below:

Table 23: Energy Purchase for FY 2021-22 (MU)

Sl. No.	Source of Power	FY 2021-22		
		Approved in ARR Order	Six Months Actuals	Revised projections
A	CGS – NEEPCO			
1	Kopili -I HEP	69.82	-	-
2	Kopili-II HEP	6.90	-	3.00
3	Khandong HEP	12.50	12.93	15.00
4	Ranganadi HEP	105.25	70.48	100.22
5	Doyang HEP	11.35	5.24	10.00
6	Assam GBPP	100.97	71.22	100.00
7	AGTPP	48.28	39.33	72.00
B	CGS – NHPC			
1	Loktak HEP Purchased Power	188.00	79.36	160.00
2	Loktak HEP- Free Power	55.90	31.19	58.00
C	Others			
1	Baramura GBPP Unit IV and V	55.40	18.41	36.00
2	OTPC Palatana	232.60	97.44	230.00
D	New Plants			
1	NTPC Bongaigaon Unit I to III	96.08	147.36	160.00
2	Pare HEP	25.45	25.88	45.00
3	Renewable – Solar	1.50		
4	Renewable – Non Solar	1.00		
	Sub -Total	1011.00	598.84	989.22
5	IEX Purchase			80
6	IEX Sale			-90
7	Banking Energy sale /Injected			-82
8	Banking Energy Drawn			115.83
	Total Purchase	1011.00	598.84	1013.05

Apart from the above proposed CGS sources for power procurement, MSPDCL requires 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 CGSs; hence such deviations cannot be estimated precisely for current financial year at this time. MSPDCL proposes the above purchase / sale based on current year's situation.

MSPDCL requests the Hon'ble Commission to approve the proposed net power purchase quantum of **1013.05 MU** for FY 2021-22 after considering the outside sale quantum.

4.4 Power Purchase Cost

The power purchase cost has been estimated based on current billing data as received by MSPDCL from various stations. The cost of power purchase from CGSs includes the fixed and variable cost. The fixed 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 approved figures as per submission made by CGSs. Hence, in order to estimate the Power Purchase cost for current financial year, appropriate station wise escalation in the effective tariff for FY 2020-21 is considered to estimate the power purchase cost for FY 2021-22. The escalation figures are used to obtain the required cost figure for FY 2021-22 as per current billing (soft copies of Power purchase bills of October 2021 are attached as **Annexure 2**). The proposed power purchase cost is shown in the Table below:

Table 24: Power Purchase Cost for FY 2021-22 (Total Cost in Rs. Cr, Avg. Tariff rate in Rs/kWh)

Sl. No.	Source of Power	Approved in ARR Order		Revised projection	
		Total Cost	Avg. Rate	Total Cost	Avg. Rate
A	CGS – NEEPCO	116.26	3.27		
1	Kopili -I HEP	7.60	1.09	0.04	0
2	Kopili-II HEP	1.02	1.48	1.34	4.46
3	Khandong HEP	2.37	1.90	3.52	2.34
4	Ranganadi HEP	25.87	2.46	26.54	2.65
5	Doyang HEP	6.549	5.77	8.89	8.89
6	Assam GBPP	48.466	4.80	44.99	4.50
7	AGTPP	24.381	5.05	30.06	4.18
B	CGS – NHPC	66.78	2.74		
1	Loktak HEP Purchased Power	66.78	3.55	59.55	3.72
2	Loktak HEP- Free Power	-	0.00	0.00	0.00
C	Others	93.66	3.25		

Sl. No.	Source of Power	Approved in ARR Order		Revised projection	
		Total Cost	Avg. Rate	Total Cost	Avg. Rate
1	Baramura GBPP Unit IV and V	17.396	3.14	19.91	5.53
2	OTPC Palatana	76.71	3.30	93.55	4.07
D	New Plants	123.03	9.92		
1	NTPC Bongaigaon Unit I to III	108.95	11.34	165.72	10.36
2	Monarchak Gas Based PP (NEEPCO)	-	-	-	-
3	Kameng HEP Stage I	-	-	-	-
4	Kameng HEP Stage II	-	-	-	-
5	Pare HEP	12.85	5.05	22.53	5.01
6	Tuirial HEP	-	-	-	-
7	Lower Subansiri Stage I	-	-	-	-
8	Lower Subansiri Stage II	-	-	-	-
9	Renewable – Solar	0.676	4.50		
10	Renewable – Non Solar	0.546	5.46		
	Total Purchase	437.87	4.33	476.63	4.82
11	IEX purchase			22.4	2.80
12	IEX sale			-21.6	2.40
13	Supplementary bills			20.00	
14	Late payment surcharge				
15	REC (Certificates)	24.93			
	Total	462.83	4.58	497.43	4.91

Apart from the power purchase cost of generators, MSPDCL is required to pay charges towards UI over-drawal and under-drawal, purchase from IEX, supplementary bills etc. Such charges cannot be estimated now, as it will be based on bills to be produced by the generators. However, MSPDCL considers supplementary bills around 20.00 Cr for FY 2021-22. Hence, MSPDCL has proposed the net total power purchase cost of **Rs. 497.43 Cr** for FY 2021-22, after considering the surplus energy sales.

MSPDCL, therefore, requests the Hon'ble Commission to approve the proposed power purchase costs for FY 2021-22.

4.5 Transmission Charges

The transmission charges include the charges paid to PGCIL, NERLDC, MSPCL and SLDC charges. The summary of transmission charges approved

by Hon'ble Commission for current year along with the proposed charges is presented in the following table. PGCIL charges are consisting of different types of bills produced by PGCIL like POC bill 1, POC bill 3 etc. The charges have been increased significantly from FY 2019-20. Therefore, considering the same, PGCIL charges have been estimated as 5% more than previous year's actual figure. However, this is very conservative estimate and likely to be more in case CERC approves the charges as per CERC Tariff Regulations for 2019-24 period. MSPCL charges have been considered as per approved figure for FY 2021-22. The same would be revised after finalization of annual account. The SLDC and NRLDC charges are considered as 5% higher on year-on-year basis on the actual charges for FY 2019-20.

Table 25: Transmission Charges for FY 2021-22(Rs. Crore)

Sl. No.	Particulars	Approved in ARR Order	Revised projection
1	PGCIL Charges	83.06	75.04
2	MSPCL Charges	96.27	96.27
3	SLDC Charges	0.815	0.74
4	NERLDC Charges	0.705	0.67
	Total	180.85	172.72

MSPDCL requests the Hon'ble Commission to approve the proposed Transmission Charges of **Rs. 172.72 Crore** for FY 2021-22.

4.6 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 for FY 2021-22, MSPDCL has proposed the O&M Expenses as follows:

Table 26: O&M Expenses for FY 2021-22 (Rs. Crore)

Sr. No	O&M Expenses	Approved for 2021-22	Revised projection 2021-22
1	Employee Expenses	116.43	67.84

2	R&M Expense	19.44	12.53
3	A&G Expense	10.10	10.82
	Total O&M Expenses	145.97	91.19

The employee cost for FY 2021-22 has been proposed based on the actual expenses for FY 2020-21. The employee cost for 2021-22 has been considered based on actual data of FY 2021-22 up to Oct 2021 in old pay scale and estimated expenses for remaining period with new pay scale (7th pay). The employee cost includes staff expenses plus part payment to be made for arrears towards 7th pay commission wage revision.

Table 27: Employee Expenses for FY 2021-22 (Rs. Crore)

Sl. No.	Details	Amount (Rs crore)
1.	Staff salary	65.49
2.	NPS Contribution	1.68
3.	Pay Arrear	0.36
4.	Medical Reimbursement	0.30
	Grand Total	67.84

In the case of R&M expenses, the projections have made with 5.72% escalation on the actual expenses incurred in FY 2020-21. Considering the growth of network, additional Rs 1 Crore has been projected under R&M expenses. For A&G expenses, escalation of 5.72% has been considered on expenses of FY 2020-21. Additionally, Rs 3 Crore is considered as special A&G expenses. The need for special A&G expenses is already recognized and approved by Hon'ble Commission in its earlier orders.

Accordingly, MSPDCL submits Hon'ble Commission to approve the proposed O&M costs of **Rs. 91.19 Crore** for FY 2021-22.

4.7 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 Central / State Government for creation of capital asset, with the balance funding sourced from different loans. The capitalization is estimated based on status of various ongoing projects which have started in the past. These projects are Central Government projects which have been implemented in various states including Manipur.

The details of actual capitalization achieved in FY 2020-21 and proposed capitalisation for FY 2021-22, is shown in the Table below:

Table 28: Capitalisation for FY 2021-22 (Rs. Crore)

Particulars	FY 2020-21	Projection for FY 21-22
Opening Balance of CWIP (A)	1520.82	1533.33
Fresh Investment during the year (B)	24.71	292.55
Investment capitalised out of opening CWIP (C)		
Investment capitalised out of fresh investment (D)		
Total Capitalisation during the year (C+D)	12.19	1409.50
Closing Balance of CWIP (A + B - C - D)	1533.33	416.38

Details of fresh invest proposed to be made during the year is given below:

Name of the Project / Scheme	Amount in Rs Crore
RAPDRP - A (13 town)	1.00
RAPDRP - B (2 town)	0.00
IPDS	34.34
RGGVY X	7.30
RGGVY XI	19.35
RGGVY XII Programme	58.56
DDUGJY new	22.84
DDUGJY Additional	59.49
Prepaid meter	74.00
High mast	15.67
TOTAL	292.55

Proposed capitalization for FY 2021-22 is detailed below.

Name of the Project / Scheme	Amount in Rs Crore
RAPDRP - A (13 town)	408.72
RAPDRP - B (2 town)	31.55
IPDS	133.43
RGGVY X	84.21
RGGVY XI	332.18
RGGVY XII Programme	204.73
DDUGJY new	54.96
DDUGJY Additional	70.05
Prepaid meter	74.00
High mast	15.67
TOTAL	1409.50

As most of the schemes have to be completed during the present year, the same has been assumed to be capitalized during FY 2021-22.

MSPDCL requests the Hon'ble Commission to kindly approve the proposed capitalization of **Rs. 1409.50 Crore** for FY 2021-22.

4.8 Interest on Working Capital

Interest on the working capital has been projected for FY 2021-22 as follows:

Table 29: Interest on Working Capital for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	Approved for FY 2021-22	Revised projection for FY21-22
1	O&M expenses for 1 month	Rs. 8.31 Crore claimed as IoWC disallowed by Commission in ARR Order	7.60
2	Maintenance spares @ 1% of GFA		21.66
3	Receivables equivalent to one month of expected revenue at prevailing tariffs		40.75
4	Consumer Security Deposit		15.63
	Total		54.38
	SBAR as on 01.04.2018		13.45%
	Interest on Working Capital		7.31

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 year has been considered. Approved SBAR has been considered. MSPDCL requests the Hon'ble Commission to approve the IoWC of **Rs 7.31** Crore for FY 2021-22.

4.9 Gross Fixed Assets and Depreciation

The closing balance of Gross Fixed Asset (GFA) for FY 2020-21 has been considered as the opening balance of GFA for FY 2021-22. The depreciation should be 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 2021-22. As the projects are capitalised almost through grant, the actual depreciation for FY 2020-21 is considered as depreciation for FY 2021-22 also. The depreciation is applicable for non-grant assets only. The Expenses towards depreciation for FY 2021-22 is shown in the Table below:

Table 30: Depreciation for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	Approved in ARR Order	Revised projections for 2021-22
1	Opening GFA	762.28	756.50
2	Addition during the Year	0.00	1409.50
3	Retirement		
4	Closing GFA	762.28	2166.00
5	Average GFA	762.28	1461.25
6	Average Rate of Depreciation	2.42%	
7	Depreciation	18.45	
8	10% of Gross Depreciation	1.84	13.06 (actual calculated for past year)

MSPDCL requests the Hon'ble Commission to approve the Depreciation of **Rs. 13.06 Cr** for FY 2021-22.

4.10 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 actual repayment, 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 are shown in the Table below:

Table 31: Interest on Loan on ongoing projects for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	REC 1	REC 2	Total
1	Opening Loan	27.916	9.3954	37.31
2	Addition during the year	0	0	0.00
3	Repayment during the year	3.988	2.9049	6.89
4	Closing Loan	23.928	14.67	38.60
5	Average Loan	25.922	12.0327	37.95
6	Rate of Interest	11.70%	11.00%	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

Additionally, under the Aatma Nirbhar Bharat scheme, MSPDCL has availed loan from PFC and REC. The interest for the same has been considered as **Rs. 10.59 Crore**. MSPDCL got government approval of government guarantee to avail loan from REC for purchase of 2 lakh prepaid meter (Rs 178 Crore) and 130 WLED streetlight and 20 m high mast for district headquarters (Rs 15.67 Crore). The loan repayment period is 13 years with 3 years' moratorium and rate of interest is 10.75%. The interest to be paid during the current year has been considered for FY 2021-22. As moratorium period is availed by MSPDCL as per loan terms, principal repayment is not considered. The same will be added in the respective year's interest when MSPDCL has to pay the same as per the loan repayment schedule. Total interest on loan is given below.

Table 32: Interest on Loan for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	Total
1	PFC/REC loan on ongoing projects	6.14
2	COVID loan under Aatma Nirbhar Bharat	10.59
3	Loan for purchase of Prepaid meters	2.36
4	Loan for LED street light & High Mast	0.72
	Total	19.81

MSPDCL requests the Hon'ble Commission to kindly approve the interest on loan as **Rs 19.81 Crore** for FY 2021-22.

4.11 Return on Equity

MSPDCL has considered the Return on Equity (RoE) for FY 2021-22 same as projected by MSPDCL earlier. MSPDCL requests the Hon'ble Commission to approve the Return on Equity of **Rs. 1.95 Crore** for FY 2021-22.

4.12 Write off of Bad Debts

MSPDCL has considered nominal amount of Rs 3 crore as Write-off of Bad Debts for FY 2021-22 and requests the Hon'ble Commission to approve the same. The actual would be submitted after annual account has been prepared.

4.13 Non-Tariff Income (NTI)

The Non-Tariff Income for FY 2020-21 has been 6.17 Crore. An escalation of 5% has been considered over and above the NTI for FY 2020-21 and

accordingly the non-tariff income has been proposed as shown in the table below:

Table 33: Non-Tariff Income for FY 2021-22 (Rs. Crore)

Particulars	Approved in ARR Order	Revised projection for 2021-22
Non-Tariff Income	6.80	6.48

MSPDCL requests the Hon'ble Commission to approve the actual Non-Tariff Income of **Rs. 6.48 Crore** for FY 2021-22.

4.14 Aggregate Revenue Requirement

Based on the above component-wise expenses, the Aggregate Revenue Requirement computed for FY 2021-22 by MSPDCL against the figures approved by the Commission in the Tariff Order for FY 2021-22, is given in the Table below:

Table 34: Aggregate Revenue Requirement for FY 2021-22 (Rs. Crore)

Sl.No	Particulars	Approved in ARR Order	Revised projection
1	Power Purchase or Energy Available (MU)	1011.00	989.22
2	Sale of Power (MU)	677.13	706.71
3	Distribution Loss (%)	20.50%	21.30%
A	Expenditure		
1	Cost of power purchase	462.83	497.43
2	Inter-State Transmission charges	83.06	75.04
3	Intra-state Transmission charges	96.27	96.27
4	SLDC & NERLDC Charges	1.52	1.41
5	Wheeling charges payable to other distribution licensee		-
6	O&M Expenses	145.97	91.19
	<i>Employee Expenses</i>	116.43	67.84
	<i>R&M Expense</i>	19.44	12.53
	<i>A&G Expense</i>	10.10	10.82
7	Depreciation	1.84	13.06
8	Advance against depreciation	--	--
9	Interest on Loan	35.79	19.81
10	Interest on Working Capital	--	7.31
11	Bad Debt	--	3.00
	A: Total Cost	827.08	804.52
B	Add: RoE	1.56	1.95

Sl.No	Particulars	Approved in ARR Order	Revised projection
	Add: Income Tax	0	-
	B: Total	1.56	1.95
	Total ARR: A+B	828.84	806.47
C	Less: Non-Tariff Income	6.80	6.48
	Less: Efficiency Gains	16.00	-
	Income from other business allocated to Licensed business		-
	C: Total deductions	22.80	6.48
	D: Aggregate Revenue Requirement (A+B-C)	806.04	800.00

The ARR approved for FY 2021-22 is Rs. 806.04 Crore. The proposed ARR for FY 2021-22 is **Rs. 800.00 Crore**. MSPDCL requests this Hon'ble Commission to approve the same.

4.15 Revenue from Sale of Power

The revenue from sale of power to consumers at the existing tariff is estimated as Rs. 526.76 Crore for FY 2021-22. The category-wise revenue realisation projection is as follows:

Table 35: Consumer Category-wise revenue projection at existing tariff for 2021-22(Rs. Crore)

Category of Consumers	FY 2021-22 Approved Energy Sales in MU	FY 2021-22 Proposed Revenue in Rs. Cr
LT Supply		
Domestic (KutirJyoti)		
All Units	4.13	1.30
Sub Total (a)	4.13	1.30
Domestic (General)		
First 100 kWh	400.66	246.53
Next 100 kWh	41.11	30.88
Balance>200 kWh	16.32	14.18
Sub Total (b)	458.09	291.59
Total Domestic (I=a+b)	462.22	292.89
Commercial		
First 100 kWh	31.33	24.86
Next 100 kWh	8.89	7.39
Balance>200 kWh	23.35	21.57
Total Commercial LT (II)	63.57	53.83
Public Lighting - LT	3.66	3.56
Public Water Supply-LT	1.28	1.30
Agri& Irrigation-LT	1.15	0.55

Category of Consumers	FY 2021-22 Approved Energy Sales in MU	FY 2021-22 Proposed Revenue in Rs. Cr
Small Industry-LT	22.28	12.42
Sub Total Other LT (III=4+5+6+7)	28.37	17.83
Commercial-HT	21.54	24.26
Public Water Supply-HT	23.49	26.97
Agriculture & Irrigation-HT	0.75	0.49
Medium Industry-HT	4.49	4.15
Large Industry-HT	10.15	11.50
Bulk Supply-HT	92.14	94.85
Sub Total Other HT (IV=8+9+10+11+12+13)	152.55	162.23
Grand Total(I+II+III+IV)	706.71	526.76

Apart from the revenue from sales to the consumers, MSPDCL receives revenue from sale of surplus power. The same has been already considered in the power purchase cost. Gross power purchase cost has been reduced by income of sale of surplus power to get the net power purchase cost. The rate of the sale/purchase has been considered as per existing rate realised to MSPDCL.

Accordingly, MSPDCL requests Hon'ble Commission to approve the total revenue for FY 2021-22 as given above.

4.16 Revenue Gap

The Revenue Gap proposed by MSPDCL for FY 2021-22 is shown in the Table below:

Table 36: Revenue Gap for FY 2021-22 (Rs. Crore)

Sl. No	Particulars	FY 2021-22
1	Net ARR	800.00
2	Total Revenue	526.76
3	Revenue Gap before Govt. Subsidy	273.23
4	State Government Revenue Subsidy	301.38
5	Revenue Gap/(Surplus)	(28.15)

As can be seen from the above Table, the Revenue surplus for FY 2021-22 is Rs 28.15 Crore. This has been estimated with the Government subsidy of Rs. 301.38 Crore for FY 2021-22, as per present estimate available with MSPDCL. However, actual payment towards government subsidy will get finalised after completion of the year and as per subsidy actually released by Govt. Therefore, the same is beyond control of MSPDCL. So, MSPDCL proposes to approve the revenue gap/surplus as indicated above for FY 2021-22, as per present estimation about government subsidy.

5. Chapter 5: Aggregate Revenue Requirement (ARR) and Tariff Determination for FY 2022-23

The Petitioner humbly submits that the present ARR projections are based on actual expenses of FY 2020-21 and first six-month data available for FY 2021-22. The comparison of the projected expenses and revenue with the expenses and revenue considered by the Hon'ble Commission in the ARR for FY 2022-23 in the JERC tariff Order 1 of 2018 dated 12 March 2018 (henceforth referred as 'Approved' order with reference to FY 2022-23) has been presented. However, the Petitioner requests the Hon'ble Commission to review the expenses and revenue for FY 2022-23 based on the trend observed as per actual data of previous years. The values presented in the approved ARR order of 2018 were based on data correspond to FY 2017-18 and its earlier years and may not capture the present situation of the Petitioner. The ARR values as approved in Order 1 of 2018 have been revised appropriately by Hon'ble Commission in its corresponding orders passed post 2018. Therefore, the ARR figures have been projected based on actual figures of past years which can rightly indicate the trend and hence, the estimation made here would be optimal for FY 2022-23.

5.1 Energy Sales

MSPDCL caters to a diverse consumer mix comprising LT domestic, LT commercial, HT commercial, LT Industry, HT Industry, public lighting, public water works and agriculture consumers. LT Domestic category is the largest consumer category and comprises around 65% to 68% 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. Based on current year's projection, the sales for FY 2022-23 have been projected. Due to large scale installation of pre-paid meters across the State, consumer numbers have been increased in various categories (basically domestic), which have been captured while projecting the consumer numbers. The category-wise energy sales as compared to the energy sales approved by the Hon'ble Commission for FY 2022-23 are given in the Table below:

Table 37: Category-wise Energy Sales (MU) for FY 2022-23

Sl. No.	Category	Approved in MYT Order	Projected
A	LT Supply		
1	Kutir Jyoti	18	4.23
2	LT Domestic	454	470.70
3	Commercial LT	56	65.16
4	Cottage and Small Industry	23	22.95
5	Public Lighting	5	3.69
6	Public Water-works	2	1.29
7	Irrigation and Agriculture	1.30	
	LT Supply Sub Total	559.30	568.03
B	HT Supply		
1	Commercial	8	21.97
2	Medium Industry	5	4.62
3	Large Industry	7	10.66
4	Bulk Supply	143	93.98
5	Public Water-works	19	24.66
6	Irrigation and Agriculture	0.85	0.75
	HT Supply Sub Total	182.85	156.65
	Total	742.15	724.68

The Commission has approved the energy sales of 742.15 MU for FY 2022-23. Based on the actual sales of FY 2020-21 and projection for FY 2021-22, the petitioner now submits the revised projection of energy sales for FY 2022-23 which is 724.68 MU. Historical sales of last six years (FY 2015-16 to FY 2020-21) have been reviewed. The growth rate (CAGR basis) of various time periods has been calculated. The same is given below.

Table 38: Category-wise Energy Sales growth rate (CAGR basis) (FY 2015-16 to FY 2020-21)

Consumer category Units in MU	5 Year CAGR	3 Year CAGR	2 Year CAGR	1 Year growth
KutirJyoti	-23.612%	-39.370%	6.655%	4.752%
Domestic	9.655%	10.093%	8.400%	9.006%
Commercial LT	9.362%	9.607%	5.476%	1.102%
Public lighting LT	-2.604%	-0.460%	-0.005%	0.990%
Public waterworks LT	-40.235%	0.869%	0.900%	1.008%
Agriculture and irrigation LT	-8.528%	-4.040%	-0.005%	0.990%
Cottage and small industry	5.950%	3.960%	4.834%	3.201%

Consumer category Units in MU	5 Year CAGR	3 Year CAGR	2 Year CAGR	1 Year growth
Commercial HT			5.925%	2.200%
Public waterworks HT		4.099%	5.000%	5.250%
Agriculture HT		-3.757%	-0.005%	0.990%
Medium Industry HT	6.767%	5.310%	4.489%	3.180%
Large Industry HT	16.632%	22.112%	14.075%	11.830%
Bulk Supply HT	0.129%	-5.379%	7.471%	5.500%

Considering the present sale position and pre-paid metering growth trend, appropriate growth rate over projected sales of FY 2021-22 has been assumed to find out sales for FY 2022-23. There is no major increase / decrease foreseen in any of the consumer category; it is assumed that the growth in energy sales for FY 2021-22 and 2022-23 will be stable. As in the initial period of operation of MSPDCL the consumer growth was substantial, which is not increasing rapidly, the historic growth rate may not be applicable, especially in domestic category. Hence, with consideration of present condition, the consumer category wise growth rate assumed for FY 2022-23 is given below.

Consumer category	Growth rate
KutirJyoti	2.5%
Domestic	2.5%
Commercial	2.5%
Public lighting LT	1%
Public waterworks LT	0.08%
Cottage and small industry	3%
Commercial HT	2%
Public waterworks HT	5%
Agriculture HT	1%
Medium Industry HT	3%
Large Industry HT	5%
Bulk Supply HT	2%

MSPDCL has reviewed the connection given to LT -irrigation and agriculture consumers and found that the consumers are using the connection for domestic purpose and therefore, re-classified them as domestic category. So, considering the present trend, projected sales is nil under LT -irrigation and agriculture category.

Accordingly, MSPDCL requests the Hon'ble Commission to approve the total energy sales of **724.68 MU** for FY 2022-23.

5.2 Distribution Loss and Energy Balance

Projected distribution loss for FY 2022-23 is estimated based on the distribution loss achieved for FY 2020-21, and the losses trajectory approved by the Hon'ble Commission for the MYT control period. Based on the estimated sales for the ensuing financial year, estimated interstate and intra states losses, power purchase requirement and surplus sales have been projected. The estimation of power procurement from different sources is done in the subsequent section. The estimated distribution loss and energy balance for ensuing financial year is as follows:

Table 39: Proposed Distribution Loss and Energy Balance for FY 2022-23

Sl. No.	Particulars	Calculation	Approved in MYT Order		Projected for FY22-23	
1	Energy Sales					
	a) LT Sales	A1		567.3		568.03
	b) HT Sales at 11kV	A2		174.85		156.65
	c) HT Sales at 33kV	A3				
	d) EHT Sales	A4				
	Total Energy Sales	A		742.15		724.68
2	Distribution Losses					
	a) Distribution losses at 33kV level	B1				
	b) Distribution losses in HT 11kV and LT system combined	B2	13.00%	110.89	20.50%	186.87
	Total Distribution Losses	B		110.89		186.87
3	Energy requirement at T-D boundary					
	a) 11kV and LT energy requirement combined	$C1 = (A1+A2)/(1-B)$		853.05		911.54
	b) HT 33kV energy requirement	$C2 = A3/(1-B1)$				
	Total energy requirement at T-D boundary	C = C1 + C2		853.05		911.54
4	Intra-State Transmission Losses	D	2.60%	22.77	8.50%	84.68
5	Energy requirement of EHT consumers	$E = A4/(1-D)$				
6	Energy Requirement of Distribution system consumers after grossing	$F = C/(1-D)$		875.817		996.22

Sl. No.	Particulars	Calculation	Approved in MYT Order		Projected for FY22-23	
	up for Intra-State Transmission losses					
	Outside sale/(Purchase)					
7	Energy Requirement at state periphery	G = E + F		875.817		996.22
8	Inter-State Transmission Losses	H	2.60%	23.3791	3.20%	32.93
9	Total Energy requirement	I = G/(1 - H)		899.196		1029.15
10	Total Energy available	J		1207.19		1124.46
11	Surplus / (Deficit) @state periphery	J*(1-H%) - G		299.99		92.26

MSPDCL has achieved the distribution loss of 21.86% in FY 2020-21. For the FY 2021-22, Hon'ble Commission has approved the distribution loss of 20.50%. MSPDCL currently proposes the same distribution loss of 20.50% for FY 2022-23. In the MYT tariff order of 2018, Hon'ble Commission has approved the distribution loss of 13.00% for FY 2022-23. The current constraint situation of MSPDCL in reduction of distribution losses has been explained in the previous chapters. MSPDCL requests Hon'ble Commission to consider the proposed distribution loss considering the high LT network and low density of consumers.

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

Further, as per NLDC website, National Loss has been declared by NLDC in the following link <<https://posoco.in/side-menu-pages/applicable-transmission-losses/>>. Hon'ble CERC has notified CERC (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020 on 04th May, 2020; w.e.f. 1st November, 2020. As per clause (10) of these regulations, transmission losses for ISTS shall be calculated on all India average basis for each week, from Monday to Sunday. Recent data for FY 2021-22 is given below.

Loss for the period	All India transmission Loss (in %)
22-11-2021 to 28-11-2021	3.68
15-11-2021 to 21-11-2021	3.43
08-11-2021 to 14-11-2021	3.19
01-11-2021 to 07-11-2021	3.28
25-10-2021 to 31-10-2021	3.33
18-10-2021 to 24-10-2021	3.19
11-10-2021 to 17-10-2021	3.24
04-10-2021 to 10-10-2021	3.05
27-09-2021 to 03-10-2021	3.41
20-09-2021 to 26-09-2021	3.21
13-09-2021 to 19-09-2021	3.2
06-09-2021 to 12-09-2021	2.88
30-08-2021 to 05-09-2021	3.31
23-08-2021 to 29-08-2021	3.02
16-08-2021 to 22-08-2021	3.12
09-08-2021 to 15-08-2021	3.48
02-08-2021 to 08-08-2021	3.64
26-07-2021 to 01-08-2021	3.15
19-07-2021 to 25-07-2021	3.05
12-07-2021 to 18-07-2021	2.81
05-07-2021 to 11-07-2021	2.98
28-06-2021 to 04-07-2021	3.29
21-06-2021 to 27-06-2021	3.08
14-06-2021 to 20-06-2021	3.06
07-06-2021 to 13-06-2021	3.19
31-05-2021 to 06-06-2021	3.13
24-05-2021 to 30-05-2021	3.57
17-05-2021 to 23-05-2021	3.64
10-05-2021 to 16-05-2021	3.39
03-05-2021 to 09-05-2021	3.4
26-04-2021 to 02-05-2021	3.46
19-04-2021 to 25-04-2021	3.44
12-04-2021 to 18-04-2021	3.32
05-04-2021 to 11-04-2021	3.16

MSPDCL requests Hon'ble Commission to approve the inter-state loss level, as assumed, based on the above data. Intra-state loss is considered as per latest approved figure.

5.3 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 power purchase for FY 2022-23 was approved 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 per present allocation.

However, the actual power purchase quantum is likely to vary based on the energy availability, hydrology, operational conditions of the plants etc. Based on the power procurement for FY 2020-21, and FY 2021-22, power project wise planned allocations have been considered for projecting the power purchase for ensuing financial year. Kopili HEP was not generating power as its dam was affected. Only Kopili -II is presently supplying power and hence, only marginal purchase has been considered for FY 2022-23. The approved and proposed energy purchase for FY 2022-23 is detailed in the Table below:

Table 40: Energy Purchase for FY 2022-23 (MU)

Sl. No.	Source of Power	FY 2022-23	
		Approved in MYT Order	Proposed
A	CGS – NEEPCO		
1	Kopili -I HEP	69.94	1.00
2	Kopili-II HEP	7.77	3.00
3	Khandong HEP	14.43	15.00
4	Ranganadi HEP	125.52	110.00
5	Doyang HEP	19.94	15.00
6	Assam GBPP	138.98	105.00
7	AGTPP	67.82	70.00
B	CGS – NHPC		
1	Loktak HEP Purchased Power	203.92	180.00
2	Loktak HEP- Free Power	80.23	62.00
C	Others		
1	Baramura GBPP Unit IV and V	80.53	32.00
2	OTPC Palatana	234.31	225.00
D	New Plants		
1	NTPC Bongaigaon Unit I to III	163.80	158.00

Sl. No.	Source of Power	FY 2022-23	
		Approved in MYT Order	Proposed
2	Monarchak Gas Based PP (NEEPCO)	-	-
3	Kameng HEP Stage I	-	-
4	Kameng HEP Stage II	-	-
5	Pare HEP	-	40.00
6	Tuirial HEP	-	-
7	Lower Subansiri Stage I	-	-
8	Lower Subansiri Stage II	-	-
9	Renewable – Solar	-	0.75
10	Renewable – Non Solar	-	5.26
	Sub -Total	1207.19	1022.01
	IEX Purchase		20.00
	IEX Purchase (GREEN POWER)		82.46
	Banking Sale		-80
	Banking purchase		80
	Total Purchase	1207.19	1124.46

Note: Approved data as per Table 7.11 of approved ARR order

Apart from the long term proposed sources for power procurement, MSPDCL requires purchase/sell surplus power from/to power exchange in real time basis 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 phenomenon and based on the demand and supply situations of DISCOM and CGSs; hence, such deviations cannot be precisely estimated for ensuing financial year at this moment. MSPDCL proposes certain purchase / sale under such transaction as per details given above, as per actual data available for past years. The requirement of banking has been already explained and monthly variation of availability as per actual data for FY 2020-21 is given in the previous chapter for reference.

Renewable Purchase Obligation (RPO): As per Notification dated 22nd February, 2021 (Notification number H.13011/5/17-JERC), Hon'ble Commission decided the RPO as follows:

Solar -10.5%, Other non-solar RPO- 10.5% and HPO – 0.18%.

It was mentioned that RPO shall be calculated in energy terms as percentage of total consumption of electricity excluding consumption met from large hydro projects. Accordingly, RPO target and possible sources to meet the RPO target is given below.

Table 41: RPO Target and RE purchase for FY 2022-23 (MU)

Sl No	Particulars	Quantum (MU)	Remarks
1	Total Energy consumption proposed	724.68	
2	Energy consumption excluding hydro	455.69	Hydro consumption is derived based on Hydro purchase reduced by inter-state, intra-state and distribution losses
3a	Solar RPO Target @10.5%	47.85	
3b	Solar generation in the state from 4967 kW	5.80	Assumed average generation 3.2 units /kW
3c = 3a -3b	Solar RPO deficit	42.05	
4a	HPO target @0.18%	0.82	
4b	HPO purchase	3.00	Purchase from SHP
4c = 4a - 4b	HPO deficit / (surplus)	(2.18)	
5a	Non-solar RPO target @10.5%	47.85	
5b	Non-solar RPO purchase	5.26	Purchase from 1 MW solid waste to energy project
5c = 5a-5b-4c	Non-solar RPO deficit after adjusting HPO surplus	40.41	Adjusting HPO surplus as it is more than target
6 = 3c+5c	Purchase from IEX through GTAM / GDAM for meeting remaining RPO target	82.46	

MSPDCL requests the Hon'ble Commission to approve the proposed power purchase quantum of 1124.46 MU for FY 2022-23.

5.4 Power Purchase Cost

The cost of power purchase from CGSs includes the fixed and variable cost. The fixed 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. In order to estimate the Power Purchase cost for ensuing financial year, 10% escalation in the effective tariff arrived from the purchase for FY 2021-22 is taken to estimate the power purchase cost for FY 2022-23. It may be noted that 10% escalation has been assumed for fixed cost component expressed in Rs Crore terms and for variable energy charges and other charges, 5% and 3% increase,

respectively, on effective tariff expressed in Rs / kWh has been considered. The solid waste to energy project of 1 MW installed in the state under non-solar category is assumed to be purchased at the rate of Rs 3.17/ kWh. The remaining amount would be paid to the generators by the State Government. So, in present analysis, MSPDCL has only considered the rate of Rs 3.17/kWh, which MSPDCL pays to the generator.

As explained above, MSPDCL would like to purchase 82.46 MU of green power from exchange to meet its RPO. The Petitioner will explore the options available under the scheme of “Green Term Ahead Market (G-TAM)”. As a first step towards Greening the Indian short term power market, Pan-India Green Term Ahead Market (GTAM) was introduced. The new market segment features contracts such as Green-Intraday, Green-Day-ahead Contingency (DAC), Green-Daily and Green-Weekly. GTAM contracts will be segregated into Solar RPO & Non-Solar RPO as RPO targets are also segregated. The operations to be carried out in accordance with the Procedure for Scheduling Bilateral Transactions through Power Exchange issued by Power System Operation Corporation Ltd and other allied regulations as amended from time to time and the Bye-Laws, Rules and Business Rules of the Exchange. Recently, commenced on 26 October 2021, the Green Day ahead Market (G-DAM) allows anonymous & double sided closed collective auction in renewable energy on the day-ahead. The power exchanges now invite bids for conventional and renewable in an integrated way through separate bidding windows. The clearing takes place in a sequential manner – first in the renewable segment having the must-run status, considering the availability of the transmission corridor, followed by conventional segment. The Petitioner will participate in GTAM and G-DAM transaction operational in power exchanges.

The proposed power purchase cost is shown in the Table below:

Table 42: Power Purchase Cost for FY 2022-23 (Total Cost in Rs. Cr, Avg. Tariff / rate in Rs/kWh)

Sl. No.	Source of Power	Approved in MYT Order		Proposed for FY 22-23	
		Total Cost	Avg. Rate	Total Cost	Avg. Rate
A	CGS – NEEPCO				
1	Kopili -I HEP	16.76	2.40	0.82	8.23
2	Kopili-II HEP	1.89	2.43	1.46	4.86
3	Khandong HEP	5.09	3.53	3.80	2.53
4	Ranganadi HEP	51.00	4.06	29.82	2.71
5	Doyang HEP	19.47	9.76	11.06	7.38
6	Assam GBPP	61.41	4.42	49.54	4.72
7	AGTPP	22.30	3.29	31.71	4.53
B	CGS – NHPC				
1	Loktak HEP Purchased Power	118.02	5.79	68.03	3.78
2	Loktak HEP- Free Power	-	-		
C	Others				
1	Baramura GBPP Unit IV and V	17.13	2.13	19.91	6.22
2	OTPC Palatana	108.66	4.64	99.00	4.40
D	New Plants				
1	NTPC Bongaigaon Unit I to III	107.79	6.58	177.48	11.23
2	Monarchak Gas Based PP (NEEPCO)	-	-	-	-
3	Kameng HEP Stage I	-	-	-	-
4	Kameng HEP Stage II	-	-	-	-
5	Pare HEP	-	-	20.02	5.01
6	Tuirial HEP	-	-	-	-

Sl. No.	Source of Power	Approved in MYT Order		Proposed for FY 22-23	
		Total Cost	Avg. Rate	Total Cost	Avg. Rate
7	Lower Subansiri Stage I	-	-	-	-
8	Lower Subansiri Stage II	-	-	-	-
9	Renewable – Solar	25.39		0.34	4.50
10	Renewable – Non Solar	2.07		1.67	3.17
	Total Purchase	556.98	4.61	514.66	5.04
11	IEX purchase	-	-	5.60	2.80
12	IEX purchase (green power)	-	-	37.11	4.50
13	Supplementary bills	-	-	45.00	-
14	Late payment surcharge	-	-	-	-
15	REC	-	-	-	-
	Total	556.98	4.61	602.37	5.36

Apart from the total power purchase cost, MSPDCL is required to pay charges towards UI over-drawal and under-drawal, Purchase from IEX, supplementary bills etc. The charges for supplementary bills are considered as Rs 45.00 crore for FY 2022-23. It is important to mention that for all CGS stations, tariff according to current tariff regime (FY 2019-20 to FY 2023-24) has not been finalised by CERC and billing is based on old tariff rate. There is a possibility to get the revised bill as per revised CERC tariff orders after pronouncement of order by Hon'ble CERC for respective CGS stations. The implications of the same as per supplementary bill would be huge if we review the previous trend.

Hence, MSPDCL has proposed the total power purchase cost of **Rs 602.37 Cr** for FY 2022-23 and requests the Hon'ble Commission to approve the same.

5.5 Transmission Charges

The transmission charges include the charges paid to PGCIL, NERLDC, MSPCL and SLDC charges. The summary of transmission charges approved by Hon'ble Commission for ensuing financial year along with the proposed charges is presented in the following table. The PGCIL charges are projected with 25% escalation over FY 2021-22 projected figure. As explained earlier, recent PGCIL charges have increased substantially and so, appropriate escalation rate is considered. MSPCL charges for FY 2022-23 have been considered as proposed by MSPCL for ensuing year. The SLDC and NERLDC charges are considered as 5% higher on year-on-year basis on the revised projected charges for FY 2021-22.

Table 43: Transmission Charges for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	Approved in MYT Order	Proposed
1	PGCIL Charges	70.76	93.80
2	MSPCL Charges	112.43	93.82
3	SLDC Charges	0.87	0.77
4	NERLDC Charges	-	0.71
	Total Transmission charges	184.06	189.10

MSPDCL requests Hon'ble Commission to approve the proposed Transmission Charges of **Rs. 189.10 Crore** for FY 2022-23.

5.6 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 ARR for FY 2022-23, MSPDCL has proposed the O&M Expenses as follows:

Table 44: O&M Expenses for FY 2022-23 (Rs. Crore)

Sr. No	O&M Expenses	Approved in MYT Order	Proposed
1	Employee Expenses	126.06	113.09
2	R&M Expense	9.09	19.25
3	A&G Expense	11.17	16.44
	Total	146.32	148.78

The employee expenses for 2022-23 have been projected based on the revised estimates of salary component as per new pay scale for all employee with yearly increment in salary. As seventh pay scale is assumed to be implemented from November, 2021, employee expenses with new pay scale has been considered. Further, additional salary for 600 new recruited staff has been considered in FY 2022-23. Hence, the impact of newly added manpower in FY 2022-23 is considered. Over and above, MSPDCL will have to pay the 7th pay wage revision arrears, which are also added to the employee expense. NPS contribution and medical reimbursement, to be given in FY 2022-23, are also projected. The details are given below.

Table 45: Employee Expenses for FY 2022-23 (Rs. Crore)

Sl. No.	Details	Amount (Rs)
1.	Salary Staffs	83.54
2.	NPS Contribution	1.76
3.	Pay Arrear	0.50
4.	Medical Reimbursement	0.30
5.	New Recruitment (600 staff)	27.00
	Grand Total	113.09

In the case of R&M and A&G expenses, the projections have made with 5.72% escalation on the expenses projected for FY 2021-22. Further as explained earlier, additional R&M expenses of Rs. 6.00 Crore have been considered for maintaining the lines, substations etc. considering the infrastructure growth

happening in MSPDCL area. Only incremental R&M cost will not cover the expenses required to maintain the huge infrastructure. Additionally, A&G costs is required for prepaid metering software expenses, franchisee fees, Vigilance, flying squad, consumer verification, energy police stations, SIM card, Modem, DCDR Server maintenance charges, Online vending charges, VPN Communication Charges etc. Additional Rs 5 Crore is assumed for A&G expenses. The prepaid vending machines related charges were Rs 2.76 crore in FY 2020-21. Considering these facts, A&G and R&M cost have been projected.

Accordingly, MSPDCL submits Hon'ble Commission to approve the proposed O&M costs of **Rs. 148.78 Crore** for FY 2022-23.

5.7 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 Central /State Government for creation of capital asset, with the balance funding sourced from loans.

The details of actual capitalization achieved in FY 2020-21 and proposed capitalisation for FY 2021-22 and FY 2022-23, is shown in the Table below:

Table 46: Capitalization for FY 2022-23 (Rs. Crore)

Particulars	2020-21	2021-22	2022-23
Opening Balance of CWIP (A)	1520.82	1533.33	416.38
Fresh Investment during the year (B)	24.71	292.55	104.00
Investment capitalised out of opening CWIP (C)			
Investment capitalised out of fresh investment (D)			
Total Capitalisation during the year (C+D)	12.19	1409.50	104.00
Closing Balance of CWIP (A + B - C - D)	1533.33	416.38	416.38

MSPDCL requests Hon'ble Commission to kindly approve the proposed capitalization of **Rs 104.00 Crore** for FY 2022-23. The capitalization is due to remaining amount of pre-paid metering scheme, to be implemented in FY 2022-23.

5.8 Gross Fixed Assets and Depreciation

The closing balance of Gross Fixed Asset (GFA) for FY 2021-22, as derived in earlier chapter, has been considered as the opening balance of GFA for FY 2022-23. The depreciation is 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 2022-23. However, considering the actual depreciation for non-grant project in FY 2020-21, the same is considered for FY 2022-23. As major projects are capitalised through grant, so latest available calculated non-grant depreciation has been considered. The Expenses towards depreciation for FY 2022-23 is shown in the Table below:

Table 47: Depreciation for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	Approved in MYT Order	Projected
1	Opening GFA	1989.98	2166.00
2	Addition during the Year	207.17	104.00
3	Retirement		
4	Closing GFA	2197.15	2270.00
5	Average GFA	2093.56	2218.00
6	Average Rate of Depreciation	2.42%	
7	Depreciation	50.66	
8	10 % of Gross Depreciation	0.51	13.06 (non-grant depreciation as determined in FY 20-21)

MSPDCL requests the Hon'ble Commission to approve the Depreciation of **Rs. 13.06 Crore**, for FY 2022-23.

5.9 Interest on Working Capital

Interest on the working capital has been projected for FY 2022-23 as follows:

Table 48: Interest on Working Capital for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	Approved in MYT Order	Proposed
1	O&M expenses for 1 month	12.19	12.40
2	Maintenance spares @ 1% of GFA	21.09	22.70

Sl. No.	Particulars	Approved in MYT Order	Proposed
3	Receivables equivalent to one month of expected revenue at prevailing tariffs	30.43	55.90
4	Consumer Security Deposit		15.80
	Total Working Capital	63.71	75.20
	SBAR as approved	14.05%	13.45%
	Interest on Working Capital	8.95	10.11

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 as on 1 April of respective year has been considered.

MSPDCL requests Hon'ble Commission to approve the IoWC of **Rs 10.11 Crore** for FY 2022-23.

5.10 Interest on Loan

The major part of capital expenditure undertaken by MSPDCL is funded by the Central / 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 as per actual repayment, and the repayment has been considered proportionately based on the opening loan balance. The details of loans with the computation of Interest on loan are shown in the Table below:

Table 49: Interest on ongoing Loan for FY 2022-23

Sl. No	Particulars	REC 1	REC 2	Total
1	Opening Loan	23.928	14.67	38.60
2	Addition during the year	0	0	0.00
3	Repayment during the year	3.988	2.9049	6.89
4	Closing Loan	19.94	14.67	34.61
5	Average Loan	21.934	14.67	36.60
6	Rate of Interest	11.70%	10.20%	0.22
7	Interest & Finance Charges	2.566	1.496	4.06
8	Interest on CSD			0.00
	Total Interest	2.566	1.50	4.06

MSPDCL respectfully submits that, recently MSPDCL got sanction for some additional loan (under Atmanirvar Bharat package- COVID loan) from financial institutions, PFC and REC. The scheme name is “**Special Long-Term Translation loans to Discoms for COVID-19**”. It is one-time opportunity to avail loans for clearance of outstanding dues as on 31 March 2020 to CPSUs GENCO / RE GENCOs/IPPs /CPSU TRANCOs. MSPDCL vide its letter no. 2/84/2020/MSPDCL-COVID/636-37 dated: 24.06.2020 made an application to the Lenders requesting a loan of INR 111.48 Crore. The same was granted by PFC and REC in 50:50 proportions (REC sanction letter number RECG/2020/Manipur/COV-026/35 dated: 03.07.2020, PFC Sanction number 04:15: SPG: MTL: MSPDCL dated 29.6.2020).

The period of moratorium for repayment of principal shall be 36 months from the date of disbursement of first instalment of loan but the entire loan shall be repaid by within a period of 120 months from the first disbursement. Present rate of interest is 9.5%, payable monthly. MSPDCL has considered the interest payment for the same.

Additionally, another two projects of purchase of 2 lakh pre-paid meter and high mast lights in district headquarters have received government approval for government guarantee for loan. The interest payment for the same has been also considered for FY 2022-23, as per amount disbursed. The details are given below.

Table 50: Interest on Loan for FY 2022-23 (Rs. Crore)

Sl. No.	Particulars	Total
1	PFC/REC loan on ongoing projects	4.06
2	COVID loan under Atmanirvar Bharat	10.59
3	Loan for purchase of Prepaid meters	16.72
4	Loan for LED street light & High Mast	1.72
	Total	33.10

MSPDCL requests Hon’ble Commission to kindly approve the interest on loan as **Rs. 33.10 Crore** for FY 2022-23.

5.11 Return on Equity

MSPDCL has considered the Return on Equity (RoE) for FY 2022-23 same as considered earlier. MSPDCL requests the Hon'ble Commission to approve the Return on Equity of **Rs. 1.95 Crore** for FY 2022-23.

5.12 Write off of Bad Debts

MSPDCL has considered **Rs. 3 Crore** as Write-off of Bad Debts for FY 2022-23, and requests the Hon'ble Commission to approve the same. This is assumed figure and actual amount would be reflected after annual audit conducted. The actual amount will be presented after audit is conducted.

5.13 Non-Tariff Income

The Non-Tariff Income for FY 2022-23 has been considered and escalated by 5% for ensuing years. Accordingly, the non-tariff income has been proposed as shown in the table below:

Table 51: Non-Tariff Income for FY 2022-23 (Rs. Crore)

Particulars	Approved in MYT Order	Proposed
Non-Tariff Income	0.47	6.80

MSPDCL requests the Hon'ble Commission to approve the actual Non-Tariff Income of **Rs 6.80 Crore** for FY 2022-23.

5.14 Aggregate Revenue Requirement

Based on the above component-wise expenses, the Aggregate Revenue Requirement computed for FY 2022-23 by MSPDCL against the figures approved by the Commission in the Tariff Order of 2018, is given in the Table below:

Table 52: Aggregate Revenue Requirement for FY 2022-23 (Rs. Crore)

	Particulars	Approved in MYT Order	Proposed
1	Power Purchase or Energy Available (MU)	1207.19	1124.46
2	Sale of Power (MU)	742.15	724.68
3	Distribution Loss (%)	13.00%	20.50%

	Particulars	Approved in MYT Order	Proposed
A	Expenditure		
1	Cost of power purchase	556.98	602.37
2	Inter-State Transmission charges	70.76	93.80
3	Intra-state Transmission charges	112.43	93.82
4	SLDC & NERLDC Charges	0.87	1.48
5	Wheeling charges payable to other distribution licensee		0.00
6	O&M Expenses	146.32	148.78
	<i>Employee Expenses</i>	<i>119.24</i>	<i>113.09</i>
	<i>R&M Expense</i>	<i>8.59</i>	<i>19.25</i>
	<i>A&G Expense</i>	<i>10.57</i>	<i>16.44</i>
7	Depreciation	0.51	13.06
8	Advance against depreciation	0.00	0.00
9	Interest on Loan	1.86	33.10
10	Interest on Working Capital	8.95	10.11
11	Bad Debt	3.00	3.00
	A: Total Cost	901.68	999.53
B	Add: RoE	1.95	1.95
	Add: Income Tax	0	0
	B: Total	1.95	1.95
	Total ARR : A+B	903.63	1001.48
C	Less: Non-Tariff Income	0.47	6.80
	Income from other business allocated to Licensed business	0.00	0.00
	C: Total	0.47	6.80
	D: Aggregate Revenue Requirement (A+B-C)	903.16	994.67

The ARR approved by the Commission for FY 2022-23 is Rs. 903.16 Crore. The proposed ARR for FY 2022-23 is **Rs 994.67 Crore**. MSPDCL humbly requests Hon'ble Commission to approve the same.

5.15 Revenue from sale of power

The revenue from sale of power to consumers at the existing tariff is estimated as Rs 546.22 Crore for FY 2022-23. The category-wise revenue realisation projection is as follows:

Table 53: Consumer Category-wise revenue projection at existing tariff for 2022-23 (Rs. Crore)

Category of Consumers	Proposed Energy Sales in MU	Proposed Revenue in Rs. Cr
LT Supply		
Domestic (KutirJyoti)		
All Units	4.23	1.32
Sub Total (a)	4.23	1.32
Domestic (General)		
First 100 kWh	409.98	254.93
Next 100 kWh	41.47	31.29
Balance>200 kWh	19.25	16.23
Sub Total (b)	470.70	302.45
Total Domestic (I=a+b)	474.94	303.77
Commercial		
First 100 kWh	31.51	25.20
Next 100 kWh	8.92	7.45
Balance>200 kWh	24.73	22.69
Total Commercial LT (II)	65.16	55.35
Public Lighting – LT	3.69	3.63
Public Water Supply-LT	1.29	1.32
Agri& Irrigation-LT	0.00	0.00
Small Industry-LT	22.95	12.83
Sub Total Other LT (III=4+5+6+7)	27.93	17.79
Commercial-HT	21.97	25.03
Public Water Supply-HT	24.66	28.50
Agri& Irrigation-HT	0.75	0.51
Medium Industry-HT	4.62	4.34
Large Industry-HT	10.66	12.17
Bulk Supply-HT	93.98	98.78
Sub Total Other HT (IV=8+9+10+11+12+13)	156.65	169.32
Grand Total(I+II+III+IV)	724.68	546.22

Apart from the revenue from sales to the consumers, MSPDCL received revenue from sale of surplus power. The revenue from sale of surplus power FY 2022-23 is as follows:

Table 54: Revenue from surplus sale and total revenue projection for FY 2022-23 (Rs. Crore)

Item	Approved	Proposed
Sale of Surplus Power (MU)	332.17	92.26
Average Tariff for Sale of Surplus Power	NA	2.35
Revenue from sale of surplus power (Rs. Crore)	NA	21.68
Revenue for Sale to Consumers (Rs Crore)	NA	546.22
Total Revenue from Sales (Rs Crore)	NA	567.90

The revenue from sale of surplus power is estimated as Rs. 21.68 Crore for FY 2022-23. The rate of sale of surplus power has been considered as per present rate of IEX sale. Due to present situation, the rate is comparatively low (present year rate is given in the previous chapter). Accordingly, MSPDCL requests the Hon'ble Commission to approve the total revenue of **Rs. 567.90 Crore** for FY 2022-23.

5.16 Revenue Gap

The Revenue Gap proposed by MSPDCL for FY 2022-23 is shown in the Table below:

Table 55: Revenue Gap for FY 2022-23 (Rs. Crore)

Sl. No	Particulars	Amount
1	Net ARR	994.67
2	Revenue from Sales	546.22
3	Revenue from Sale of Surplus Power	21.68
4	Revenue Gap before Govt. Subsidy (1-2-3)	567.90
5	State Government Revenue Subsidy	301.38
6	Revenue Gap/(Surplus) (4-5)	125.39

For FY 2022-23, the unmet revenue Gap is estimated at **Rs. 125.39 Crore** with Government subsidy support of Rs. 301.38 Crore. MSPDCL proposes to recover the GAP by way of tariff hike for FY 2022-23.

6. Chapter 6: Tariff Determination for FY 2022-23

6.1 Aggregate Revenue Requirement

The combined ARR for FY 2022-23 for the wire business and supply business of MSPDCL is proposed is as follows:

Table 56: Combined ARR of MSPDCL proposed for FY 2022-23 (Rs. Crore)

	Particulars	ARR	% of Total
		2022-23	
A	Cost of power purchase	602.37	60.56%
	Inter-State Transmission charges	93.80	9.43%
	Intra-state Transmission charges	93.82	9.43%
	SLDC & NERLDC Charges	1.48	0.15%
	Wheeling charges payable to other distribution licensee	0.00	0.00%
	O&M Expenses	148.78	14.96%
	Depreciation	13.06	1.31%
	Advance against depreciation	0.00	0.00%
	Interest on Loan	33.10	3.33%
	Interest on Working Capital	10.11	1.02%
	Bad Debt	3	0.30%
	A: Total Cost	999.53	-
B	Add: RoE	1.95	0.20%
	Add: Income Tax	0.00	0.00%
	B: Total	1.95	0.20%
	Total ARR : A+B	1001.48	-
C	Less: Non Tariff Income	6.80	0.68%
	Income from other business allocated to Licensed business	0.00	0.00%
	C: Total	6.80	0.68%
	D: Aggregate Revenue Requirement (A+B-C)	994.67	100.00%

From above table it can be seen that, the total ARR of MSPDCL proposed for FY 2022-23 is of **Rs. 994.67 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 (of FY 2021-22) if applied to the FY 2022-23.

Table 57: Revenue Gap for FY 2022-23 at existing tariff (Rs Crore)

Sr. No	Particulars	Amount in Rs. Cr
1	Annual Revenue Requirement proposed for FY 2022-23	994.67
2	Revenue from sale of power at existing tariff	546.22
3	Revenue from sale of surplus power	21.68
4	Total Revenue	567.90
5	Revenue Gap	426.77

Thus, MSPDCL has estimated that it will face a Revenue Gap of Rs. 426.77 Cr in FY 2022-23 for the proposed ARR with recovery as per existing tariff. Projected Average Cost of Supply and Average realization from sale of power for FY 2022-23 is as shown in the Table Below:

Table 58: Projected ACOS and Avg. Realization FY 2022-23 at existing tariff (Rs. Crore)

Sr.No.	Particulars	Legend/formula	Units	Amount/Value
1	Net Revenue Requirement	A	Rs. Crore	994.67
2	Revenue from existing tariff	B	Rs. Crore	546.22
3	Revenue from sale of surplus power	C	Rs. Crore	21.68
4	Total Revenue	D = B + C	Rs. Crore	567.90
5	Revenue Gap	E = A - D	Rs. Crore	426.77
6	Energy Sales to consumers	F	MU	724.68
7	Surplus Power to be sold	G	MU	92.26
8	Total Sales	H = F + G	MU	816.94
9	Average Cost of Supply	I = (A - C)/F X 10	Rs/kWh	13.43
10	Average Realisation from sale of power	J = (B x 10)/F	Rs/kWh	7.54
11	Average Rate for Sale of surplus power	K = (C x 10)/G	Rs/kWh	2.35
12	Average Rate for sale of all power	L = (B + C) x 10/H	Rs/kWh	6.95
13	Average rate for Unmet Revenue Gap	M = (E x 10)/H	Rs/kWh	5.22

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

6.2 Recovery of Revenue Gap for FY 2022-23

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 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.

Further, 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 Hon'ble Commission. 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 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.

It is pertinent to mention that, the revenue of MSPDCL is considered as per actual sales and billing basis at the time of trueing up. Hence, the due amount to be recovered from consumer (i.e. billing – collection) would not be considered by Hon'ble Commission while trueing up in regulatory practice. Therefore, the additional income in terms of dues to be recovered from consumers should not be part of income of ensuring year. Otherwise, actual income received (collected) during the year can be considered while trueing up without considering the amount billed. Therefore, MSPDCL requests to consider the above submission and efficiency improvement (income through recovery of dues) should not be considered in the ARR for ensuring year.

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, without even considering cost of inter-state and intra-state Transmission Charges. The Revenue from sale of power at existing tariff for FY 2022-23 is estimated at Rs. 546.228 crore, whereas the proposed cost of power purchase without inter-state and intra-state Transmission Charges for FY 2022-23 is itself Rs. 602.37 crore, i.e., Revenue from sale of electricity can meet only 90.67% of the power purchase cost **excluding** inter-State and intra-State Transmission Charges. The remaining of the power purchase cost, inter-state and intra-state transmission 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, all the categories are subsidised, and there is no subsidising consumer category. This highlights the fact that the tariff of MSPDCL is at very low levels, which is unsustainable, and there is an urgent need to rationalise the tariffs of all consumer categories. There is no scope for further reduction of ACoS, as major component is power purchase cost and it is external to the licensee, and MSPDCL has no control on it. MSPDCL's own cost, which can be controlled by MSPDCL, is very minimum compared to the whole ARR.

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 2020-21. 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 Hon'ble Commission to approve the appropriate and adequate tariff increase.

Further, the Hon'ble Commission will appreciate that MSPDCL's own contribution to its ARR is only Rs. 208.05 crore, after excluding cost of power purchase and transmission charges. Power purchase and transmission charges are payable to other agencies based on regulated tariffs, and hence, they are uncontrollable for MSPDCL. Thus, MSPDCL's contribution is only 20.92% of the proposed ARR, which works out to Rs. 2.28 per kWh, considering the total energy injected in MSPDCL's periphery.

Thus, it needs to be appreciated that the estimated Revenue Gap is Rs. 426.77 crore and Revenue from sale of power at existing tariff is Rs. 546.22 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 78.07%, which is very high and would amount to a huge 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 2022-23 to the extent of Rs. 301.38 crore, in addition to any Grants for creation of capital assets. The balance Revenue Gap of Rs. 125.39 crore would thus, have to be recovered from the consumers through an average tariff hike of 22.8%, as shown in the Table below:

Table 59: Average Tariff Increase Required (FY 2022-23)

Sl. No.	Particulars	Units	Without subsidy	With subsidy
1	Net ARR	Rs. Crore	994.67	994.67
2	Revenue from Existing Tariff	Rs. Crore	546.22	546.22
3	Sale of Surplus Power	Rs. Crore	21.68	21.68
4	Total Sales Proceeds	Rs. Crore	567.90	567.90
5	Revenue Gap	Rs. Crore	426.77	426.77
6	State Government Revenue Subsidy	Rs. Crore		301.38
7	Net Un-met GAP	Rs. Crore	426.77	125.39
8	Revenue from sale of power at proposed tariff	Rs. Crore	972.99	670.77
9	Unit revenue realisation at the proposed Tariff	Rs. / kWh	13.43	9.26
10	Average Tariff hike required = (Sl no 7 / Sl no 2) x100	%	78.07%	22.8%

Note: The proposed tariff hike is based on the existing tariff rate (per unit revenue realisation) of Rs. 7.5/ kWh.

Further, while the power purchase cost has increased substantially due to change in the tariff hike of Central Generating Stations and Transmission charges, commensurate increase in the MSPCL's RST has not been given. This situation widens the gap between the revenue collection and the power purchase cost. The statement below shows the power purchase cost in the last 3 years in comparison with the revenue collection, based on provisional figure available with MSPDCL.

Year	Power Purchase Cost (including Transmission Charges) (Rs. In Crore)	Revenue Collection including Outside Sales (Rs. In Crore)	Revenue Gap (Rs. In Crore)
(A)	(B)	(C)	(D) = (B)-(C)
2017-18	449.16	292.88	156.28
2018-19	504.49	297.97	206.52
2019-20	571.79	334.18	237.61
2020-21	591.04	350.00	241.02

From the above, it can be clearly seen that the Revenue Gap has increased from Rs. 156.28 Crore in FY 2017-18 to Rs. 241.02 Crore in 2020-21.

Without commensurate increase in tariff, MSPDCL will not be able to sustain and pay the CPSU Generating Stations and Transmission Companies. Therefore, it is proposed to hike the MSPDCL consumer tariff and hence 22.8% increase has been proposed so as to meet the increasing revenue gap.

While the revenue gap has increased from Rs. 156.28 Crore in 2017-18 to Rs. 241.02 Crore in 2020-21, the Govt. Subsidy on power purchase has reduced as given in the statement below. The growth in power purchase cost was 12.31% and 13.34% in FY 2018-19 and FY 2019-20 respectively; whereas, the approved tariff hike was much lower. Therefore, there is no scope before MSPDCL to meet the increasing power purchase cost without increasing the consumer tariff proportionately.

Year	Power Purchase Cost (including Transmission Charges) (Rs. In Crore)	Revenue Collection including Outside Sales (Rs. In Crore)	Revenue Gap (Rs. In Crore)	Govt Subsidy on Power Purchase (Rs. In Crore)	Unmet Revenue Gap (Rs. In Crore)
(A)	(B)	(C)	(D) = (B) - (C)	(E)	(F) = (D) - (E)
2017-18	449.16	292.88	156.28	123	33.28
2018-19	504.49	297.97	206.52	120	86.52
2019-20	571.79	334.18	237.61	120	117.61
2020-21	591.04	350.00	241.02	120	121.02

6.3 Tariff Proposal for FY 2022-23

1. As elaborated above, after considering the estimated revenue subsidy support from the State Government of Rs. 301.38 crore, the unmet Revenue Gap of Rs. 125.39 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 $\pm 20\%$ 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 $\pm 20\%$ of the ACoS straightaway. Considering these limitations, MSPDCL has formulated its tariff proposal.
3. As such for FY 2022-23, MSPDCL has proposed an average Tariff increase of 22.8% on the Commission approved tariff for FY 2021-22 to partially meet the proposed ARR. It may be noted that subsidy support of Rs. 301.38 crore for FY 2022-23 from the State Government has been considered while submitting the present petition and accordingly 22.8% increase in tariff has been propose to meet the revenue gap.
4. MSPDCL has to pay certain fixed type of charges which are irrespective to energy drawn. These include fixed charges to generators, O&M charges, depreciation, interest on loan etc. So, there is urgent requirement to balance the fixed payment obligation with fixed payment received from consumer. As per existing tariff, income from fixed charges is only Rs 82.82 Crore for FY 2022-23. Without proposing a huge increase in a year, MSPDCL proposes small increment of Rs ten only (Per kW/kVA) in fixed charges for all consumer categories. This can be increased further in future years to recover some of the fixed expense of MSPDCL.
5. MSPDCL proposes to increase the variable charges for all consumer categories, except BPL, for FY 2022-23 to meet the revenue gap.

6. MSPDCL requests the Commission to retain the existing system of telescopic tariff for LT Domestic and LT commercial categories in FY 2022-23.
7. For the following categories, some changes are proposed as given below.

Consumer category	Present provision	Proposed provision
LT category 6– Irrigation and Agriculture	Applicability: This tariff is applicable to irrigation/pumping for Agricultural purpose only.	LT category 6a– Agriculture Applicability: This tariff is applicable to pumping for Agricultural purpose by individual farmer. LT category 6b– Irrigation Applicability: This tariff is applicable to irrigation /pumping for Agricultural purpose by others.
HT category 3– Irrigation and Agriculture	Applicability: This tariff is applicable to irrigation/pumping for Agricultural purpose only.	HT category 3a– Agriculture Applicability: This tariff is applicable to pumping for Agricultural purpose by individual farmer. HT category 3b– Irrigation Applicability: This tariff is applicable to irrigation /pumping for Agricultural purpose by others.

For LT-category, MSPDCL proposes the Hon'ble Commission to approve the segregation into two separate category that is irrigation and agriculture. For HT-category also, MSPDCL proposes the Hon'ble Commission to approve the segregation into two separate category that is irrigation and agriculture. Considering the applicability The

MSPDCL proposes the tariff order for 2022-23 for LT -Irrigation and Agriculture separately and for HT-Irrigation and Agriculture separately.

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

Table 60: Existing & Proposed Category-wise Tariffs for FY 2022-23

Sl.	Category	Existing Tariff (FY 2021-22)		Proposed Tariff(FY 2022-23)		% increase in energy charge
		Fixed Charges per month (Rs.)	Energy Charges (Rs/kWh)	Fixed Charges per month (Rs.)	Energy Charges (Rs/kWh)	
	LT Supply					
1	KutirJyothi/ BPL					
i	All units (15 kWh/month)	25.00	2.10	25	2.10	0.00%
2	Domestic	Rs/kW/month		Rs/kW/month		
i	0-100 kWh/month	65.00	5.10	75	6.70	31.37%
ii	101-200 kWh/month	65.00	5.95	75	7.85	31.93%
iii	Above 200 kWh/month	65.00	6.75	75	8.90	31.85%
3	Commercial					
i	1-100 kWh/month	85.00	6.55	95.00	8.50	29.77%
ii	101-200 kWh/month	85.00	7.25	95.00	9.45	30.34%
iii	Above 200 kWh/month	85.00	7.65	95.00	10.00	30.72%
4	Public Lighting System	70.00	9.55	80.00	9.95	4.19%
5	Public Water works	105.00	9.80	115.00	10.00	2.04%
6a	Irrigation	65.00	4.55	75.00	6.50	42.86%
6b	Agriculture			75.00	6.50	
7	Small Industry	70.00	4.85	80.00	6.20	27.84%
	HT Supply	Rs/kVA/month	Rs /kVAh	Rs/kVA/month	Rs /kVAh	
1	Commercial	105.00	8.75	115.00	9.95	13.71%
2	Public Water works	105.00	9.50	115.00	9.90	4.21%
3a	Irrigation	105.00	4.75	115.00	6.50	36.84%
3b	Agriculture			115.00	6.50	
4	Medium Industry	105.00	7.20	115.00	8.30	15.28%
5	Large Industry	105.00	8.80	115.00	9.70	10.23%
6	Bulk Supply	105.00	8.80	115.00	10.00	13.64%

6.4 Proposed Wheeling Charges for Open Access transactions for FY 2022-23

In accordance with Regulation 79 of the JERC (MYT) Regulations, 2014, MSPDCL has segregated the total approved ARR for FY 2022-23 into Wires ARR and Supply ARR based on the allocation matrix specified therein, as shown below:

Table 61: ARR for Wires Business for FY 2022-23

Sl.	Particulars	Total ARR	Wires Business (%)	Retail Supply Business (%)	Wires ARR	Supply ARR
A	Expenditure					
1	Cost of power purchase	602.37	0%	100%	0.00	602.37
2	Inter-State Transmission charges	93.80	0%	100%	0.00	93.80
3	Intra-State Transmission charges	93.82	0%	100%	0.00	93.82
4	NERLDC Charges	1.48	0%	100%	0.00	1.48
5	O&M Expenses	148.78				
	<i>Employee Expenses</i>	<i>113.09</i>	<i>60%</i>	<i>40%</i>	<i>67.86</i>	<i>45.24</i>
	<i>Repair & Maintenance Expenses</i>	<i>19.25</i>	<i>90%</i>	<i>10%</i>	<i>17.32</i>	<i>1.92</i>
	<i>Administrative & General Expenses</i>	<i>16.44</i>	<i>50%</i>	<i>50%</i>	<i>8.22</i>	<i>8.22</i>
6	Depreciation	13.06	90%	10%	11.75	1.31
7	Interest on Loan	33.10	90%	10%	29.79	3.31
8	Interest on Working Capital	10.11	10%	90%	1.01	9.10
9	Provision for bad debts	3	0%	100%	0.00	3.00
	Total Cost	999.53			135.95	863.57
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	1001.48			137.71	863.77
D	Less (Non-Tariff Income)	6.80	10%	90%	0.68	6.12
	Sub-total (D)	6.80			0.68	6.12
	Net Aggregate Revenue Requirement (C-D)	994.67			137.03	857.65

The proposed Wheeling Charges for FY 2022-23 has been computed based on the methodology adopted by Hon'ble Commission for determining the Wheeling Charges in the MYT Order dated March 12, 2018, as shown in the Table below:

Table 62: Proposed Wheeling Charges for FY 2022-23

Sl.	Particulars	Units	Amount
1	ARR for Wires Business	Rs. Crore	137.03
2	Energy available at Distribution periphery	MU	911.54
3	Wheeling Charges	Rs/kWh	1.50

Thus, MSPDCL proposes Wheeling Charges of **Rs. 1.50** per kWh for Open Access transactions in the State of Manipur.

7. Chapter 7: Tariff Schedule

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

7.1.1 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 energy meters.

7.1.2 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.

7.1.3 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.

7.1.4 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.

7.1.5 Due date: Due date for payment of monthly bill through cheques shall be **three (3) days** in advance from the normal due date for that bill payment. While, in the case of payment through online bank transfer/credit card, it shall be **one (1) day** in advance from the normal due date specified for that bill. The licensee shall ensure that the bill is delivered to the consumer by hand/post/courier at least **ten (10) days prior** to the payment due date of the bill. (Clause 6.1 & 6.5 of the JERC for Manipur & Mizoram (Electricity Supply Code Regulations, 2013 with latest amendments).

7.1.6 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.

7.1.7 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.

7.1.8 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.

7.1.9 Power Factor Incentive/Surcharge:

- a) If the average monthly power factor of the consumers increases above 95%, he shall be paid an incentive at the following rate:

Criteria condition	Eligible Incentive
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 consumers falls below 90%, he shall pay a surcharge in addition to his normal tariff, at the following rate:

Criteria condition	Surcharge payable
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 consumers falls below 85%, he shall pay a surcharge in addition to his normal tariff at the following rate:

Criteria condition	Surcharge payable
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 consumer 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 ‘kiloWattHours’ to the total ‘kiloVoltAmperehours’ 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 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.

7.1.10 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 convenience sake:

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

$$730 \times 1.0 \times C$$

$$\text{Average transformer loss} = \frac{\text{-----}}{100} = \text{kVAh per month}$$

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.*

7.1.11 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 (not to be rounded), except for load less than 500 W. Load less than 500 W shall be taken as 0.5 kW for calculation of fixed/demand charge in the monthly billing. Fixed/Demand charge in the monthly billing shall be calculated as follows:- Fixed/Demand charge per month = Contracted load (in kW) or Billing demand (in kVA) x Rate of fixed charge per month per kW/kVA (as the case may be).

7.1.12 Rounding-off Rupees: 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.

7.1.13 Mixed load: Any part of the connection given for one specified category should not be utilized for any other purpose, involving higher rate of charge in the tariff. A separate connection shall have to be taken for such loads or purposes falling under appropriate category, failing which the entire consumption (i.e., existing category consumption and additional consumption for different purpose) shall be billed in that corresponding category with higher applicable tariff for which any part of that connection is utilised.

7.2

7.2.1 System of supply:

7.2.1.1 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 upto 50 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.

7.2.1.2 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.

7.2.2 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.

7.2.3 Billing Demand: The billing demand “Billing Demand means highest of the following: - (i) The Contract demand, or (ii) the maximum demand indicated by the meter during the billing cycle, or (iii) the sanctioned load wherever contract demand has not been provided in the supply agreement.”.

7.2.4 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.

7.2.5 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.

7.2.6 Unmetered Supply: For all categories of consumers, the energy (kWh) so computed as per clause 7.5 of this tariff schedule shall be charged at the same rate for metered tariff of the respective category to arrive at the cost of energy consumed.

A: SUBSIDISED TARIFF

7.3 LT Supply: -

7.3.1 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 superseded 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 Units @ Rs 2.10 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, 2013 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.

7.3.2 LT Category-2: Domestic

Applicability: Applicable for supply of energy exclusively for domestic purposes only in domestic premises. The Domestic consumer is qualified to be in this category if it is with attached kitchen/kitchen facility. 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. 75.00 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	6.70
101-200 kWh/month	7.85
Above 200kWh/month	8.90

Note: If any part of the domestic connection is utilized for any use other than dwelling purpose like commercial, industrial, etc., a separate connection should be taken for such loads under appropriate category, failing which the entire consumption shall be treated as the case may be, in the corresponding category with applicable tariff.

7.3.3 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. 95.00 per month per kW of Contracted load

B) **Energy charge per month:**

Consumption Range	Energy Charge (Rs. /kWh)
1-100 kWh/month	8.50
101-200 kWh/month	9.45
Above 200 kWh/month	10.00

7.3.4 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. 80.00 per month per kW of contracted load.

B) **Energy Charge per month:**

1. **Metered Supply**

Consumption Range	Energy Charge (Rs. /kWh)
All Units	9.95

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

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

Tariff Rates:

A) **Fixed Charge:**Rs. 115 per month per kW of Contracted load

B) **Energy charge per month:**

1. **Metered Supply:**

Consumption Range	Energy Charge (Rs. /kWh)
All Units	10.00

7.3.6 LT Category-6: 6a - Agriculture and 6b - Irrigation

LT category 6a–Agriculture

Applicability: This tariff is applicable to pumping for Agricultural purpose by individual farmer.

LT category 6b– Irrigation

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

Tariff Rates:

A) **Fixed Charge:** Rs. 75.00 per month per kW of Contracted load.

B) **Energy charge per month:**

1. **Metered Supply:**

Consumption Range	Energy Charge (Rs. /kWh)
All Units	6.50

7.3.7 LT Category-6: Small Industry

Applicability: Applicable to all Industrial power consumers with demand of power up to 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. 80.00 per month per kW of Contracted load.

B) **Energy Charge per month:**

1. **Metered Supply**

Consumption Range	Energy Charge (Rs. /kWh)
All Units	6.20

7.4 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.

7.4.1 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. 115.00 per month per kVA of Billing Demand

B) **Energy charge per month**

Metered Supply:

Consumption Range	Energy Charge (Rs. /kWh)
All Units	9.95

7.4.2 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. 115.00 per month per kVA of Billing Demand.

B) **Energy charge per month:**

Metered Supply:

Consumption Range	Energy Charge (Rs. /kWh)
All Units	9.90

7.4.3 HT Category-3: 3a - Agriculture & 3b - Irrigation

HT category 3a-Agriculture

Applicability: This tariff is applicable to pumping for Agricultural purpose by individual farmer.

HT category 3b– Irrigation

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

Tariff Rates:

A) **Demand Charge:** Rs. 115.00 per month per kVA of billing demand

B) **Energy charge per month:**

Metered Supply:

Consumption Range	Energy Charge (Rs. /kWh)
All Units	6.50

7.4.4 HT Category-4: Medium Industry

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

Tariff Rates:

A) **Demand Charge:** Rs. 115.00 per month per kVA of Billing Demand.

B) **Energy Charge per month:**

Metered Supply:

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

7.4.5 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. 115.00 per month per kVA of Billing Demand.

B) **Energy charge per month:**

Metered Supply:

Consumption Range	Energy Charge (Rs. /kWh)
All Units	9.70

7.4.6 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. 115.00 per month per kVA of Billing Demand.

B) **Energy Charge per month:**

Metered Supply:

Consumption Range	Energy Charges (Rs. /kWh)
All Units	10.00

7.5 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 levels 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.

7.6 Computation of energy consumed for un-metered supply:

7.6.1 This shall be applicable to consumer (inclusive of street lightings) without meter from initial connection and have not been covered under any of the metering schemes. The monthly energy consumption shall be computed as below: -

$$\text{Energy Consumption} = L \times H \times F \times D.$$

Where L = Contracted load in kW or Billing Demand in kVA, (as per clause 1.9 of this tariff schedule)

H = (a) For consumer in general: - Total number of hours in a month during which power is actually supplied to that consumer through that feeder / through that DT concerned, whichever is less, (after taking into account all interruptions of power feeding that) or (730 minus total hours interruptions of power feeding that consumer); where 730 is average number of hours in a month in a non-leap year. (Note: - Interruption shall mean breakdowns of Feeders, Part of feeder, Distribution Transformer, load shedding, all types of shut downs which should be recorded and informed to concerned billing station)

(b) For Street Lights:-Total number of hours in a month during which power is actually supplied to street lights through that feeder / through that DT concerned.(12 Hrs per day in Gregorian calendar

month or 365 hrs per month on average basis. However, number of hours where power supply is not made due to interruptions available shall be deducted.

(Note:- Interruption shall mean breakdowns of Feeders, Part of feeder, Distribution Transformer, load shedding , all types of shutdowns which occurs between dawn to dusk,. which should be recorded and informed to concerned billing station)

F = Load Factor shall be as stipulated for theft cases in ANNEXURE 11.19 of the Joint Electricity Regulatory Commission for Manipur& Mizoram (Electricity Supply Code) Regulations, 2013, which is reproduced for convenience sake:-

S. No	Particulars	Load factor
1.	Domestic (LT/HT)	40%
2.	Non-domestic/Commercial (LT/HT)	50%
3.	Industrial (LT/HT)	75%
4.	Public Water supply(LT/HT)	50%
5.	Bulk supply	50%
6.	Agriculture/Irrigation(LT/HT)	50%
7.	Street light	50%
8.	Direct theft- All categories	100%

D = Demand factor which shall be taken as (1) 100 % in case of street lighting and (2) 45 % in case of other consumption.

7.6.2 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.

7.6.3 For Un-authorized 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.

7.7 Miscellaneous Charges

7.7.1 Meter Rent

7.7.1.1 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.**

7.7.1.2 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**

7.7.2 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. Material 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.

c) Execution charge for re-installation/installation of meter:

1. For existing consumer shall be Free of cost.
2. For disconnected consumer being re-connected (if meter is removed) shall be charged @ Rs75.00.
3. For new consumer, it shall be included in the cost of service connection as under execution charges.

- #### **d) 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.

e) 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.
- (v) For any other type of meter, HT supply: Rs.200.00 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.

7.7.3 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.

7.7.4 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.*

7.7.5 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.

7.7.6 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 connection

2. For Cut out & Fuse: -

- i. Rs 15.00 per cut-out.
- ii. Rs 5.00 per fuse

3. For replacement of meters

a) Single Phase: Rs.40/-; b) Three Phase: Rs.60/-; c) CT operated: Rs.80/-; d) CT & PT operated: Rs.80/-

Works shall be executed only on production of payment receipt from concerned office.

7.7.7 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.

7.7.8 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.**

7.7.9 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.

The execution charges shall be as follows:

a) Single Phase: Rs.20/-; b) Three Phase: Rs.30/-; c) CT operated: Rs.40/-; d) CT & PT operated: Rs.40/-

7.7.10 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.

7.7.11 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.

7.7.12 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.

7.7.13 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.

8. Chapter 8: Compliance of Directives

Hon'ble Commission vide its earlier Tariff Orders 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 2021-22		
	<p>Directive No.1:</p> <p>a) Submit the total Outstanding Arrears payable to various CPSCU Gencos & Transcos, IPPs and RE Generators individually along with yearly accumulated dues in the past and the constituent penalties and late payment charges break-up details separately for which the Special Long-Term Transition Loans to DISCOMS for COVID-19 is being availed for an amount of Rs.111.48Crs.</p> <p>b) Besides, also submit a detailed report duly indicating the actual amounts drawn and dates of</p>	

Sl. No.	Directive	Compliance Status
	<p>drawal for each tranche to the Commission latest by 16th June 2021 for record purpose.</p> <p>c) The proposed Loan amortisation schedule may also be submitted. If the Interest is payable along with Tax, indicate the applicable Tax rate being adopted for in each disbursement to be made to the REC/PFC as per the loan agreement entered with.</p>	
	<p>Directive No.2 Availing of REC Loan amount obtained for procurement of 2 lakhs prepaid meters: Submit the Loan amortisation schedule proposed for at the time of availing the loan and details of loan drawal amounts along with dates of drawal. Also, provide the following details relating to the loan:</p> <p>i Is the repayment of interest being on monthly resting or annually?</p> <p>ii Interest calculation if payable based on 365 days based or 12 months based. What's is the tax rate payable along with interest if so provide the relevant details.</p>	
	<p>Directive No.3 Availing of Rs.15.67crs from REC for installation of Street Lights and High Mast Lights: Submit the Loan amortisation schedule proposed for at the time of availing the loan and details of loan drawal amounts</p>	

Sl. No.	Directive	Compliance Status
	<p>along with dates of drawal. Also, provide the following details relating to the loan:</p> <ul style="list-style-type: none"> i Tenure of the loan repayment and period of moratorium ii Is the repayment of interest being on monthly resting or annually and applicable rate of interest of loan at which it is availed? iii Interest calculation if payable based on 365 days based or 12 months based. What's is the tax rate payable along with interest if so provide the relevant details. iv The entire project execution cost is Rs.17.5071 crs, while the principle loan amount is only Rs.15.67crs. How the differential uncovered gap of Rs.1.84crs is being managed by the MSPDCL in this aspect. v The Cost benefit analysis for the loan availed is not described in detail in the ARR filing submission. What is the interest burden (Rate of Interest and monthly/Quarterly amount payable) towards this loan amount consequent on its availing? 	
	<p>Directive no.4: Kutir Jyoti: Provide the details of number of consumers who exceeded 45 kWh in the last 3 months</p>	

Sl. No.	Directive	Compliance Status
	were actually converted to L.T Domestic consumers during the FY 2020-21 and 2021-22.	
	<p>Directive No.5: Unmetered Supplies: Report number of consumers detected under the unmetered supplies in the past from 2019-20 onwards and the details of revenue collected from such consumers. Also submit the corrective actions initiated/taken to prevent such consumers from resorting to theft of energy again.</p>	
	<p>Directive No.6 Consumer Contribution accumulated amount: Besides, the details of amount collected from consumer contributions possessed by the MSPDCL ever since the inception of the corporation in 2014 shall be submitted to the Commission each year-wise by end of June 2021.</p>	
	<p>Directive No.7 The MSPDCL is directed to file at least three true-up petitions in chronological sequence of those financial years which are pending for submission along with full-fledged audited Accounts before filing next tariff petition for FY 2022-23 without any further delay.</p>	
	<p>Directive No.8 The MSPDCL shall also conduct system studies and energy audit after proper assessment of metering systems in operation. Further, segregation of technical and commercial loss has to be completed without any plausible excuses and <i>initial report on</i></p>	

Sl. No.	Directive	Compliance Status
	<i>these issues be submitted to Commission on or before end of August 2021.</i>	
	<p>Directive No.9: It is necessary that the Licensee should chalk out a constructive & strategic plan to curtail distribution losses in FY2021-22 and submit such action plan to the Commission with an assurance to achieve before end of 30th June 2021 (pg-89 FY 2021-22).</p>	
New Directives issued by Hon'ble Commission in its tariff order for FY 2020-21		
	<p>New Directive 1 Distribution Losses & Outside State sales The MSPDCL shall invariably submit the details to the Commission on 15th of each month following the month in which the quantum of energy input/received by each circle and also the quantum of energy sold in the relevant month by each circle separately for each of the twelve (12) months promptly starting from April to March without fail. An action plan and intimate the same to the Commission by end of June 2020. Under these circumstances, how would the licensee fulfil the REC-Tranche-II pre-condition of "A plan, endorsed by the State Government in consultation with Ministry of Power, to bring down their AT&C losses and ACS-ARR gap over the next three to four years". Explain?</p>	

Sl. No.	Directive	Compliance Status
	<p>New Directive 2 Levy of penalties for non-payment of long pending revenue dues imposing of penalties/late payment surcharges is not happening at the level expected and unless penalties are strictly imposed the revenue collections is bound to be poor and the Organisation will have to face financial crunch on account of their own inaction. This is not a healthy practice and MSPDCL shall take serious note of the situation and order for intensive special revenue collections drive and see that these huge dues from sale of power comes down very soon by drawing an action plan and intimate the same to the Commission by end of June 2020. Where is the Action plan report called for by the Commission on or before June 2020? Submit the said report without fail before 30th June 2021. The inaction on non-submission will be viewed seriously.</p>	
	<p>New Directive 3 Adopting Merit Order Despatch technique in Power purchases to minimise cost of power purchase and reduce the surplus power for sale It is observed that the MSPDCL is procuring the quantum of power purchase which is much more than their state sale requirement. The Licensee shall follow the merit order despatch principles judiciously or limit to their minimum</p>	

Sl. No.	Directive	Compliance Status
	<p>off-take of energy which is costly in each month so as to minimise the power purchase cost and to pass on any such benefit of gains to the consumers and at the same time they are directed to keep the Outside State sales quantity to the least possible level all the time.</p> <p>MSPDCL shall do a lot in curtailing the excess quantum of purchase unnecessarily. This will not only burden the general public but also burdens the State Government Exchequer adversely in the subsidy form. This issue needs top-priority and take steps to minimise purchases from costly CGS stations and can also think of surrendering the excess quota from CGS with due discussions with State Government on this issue.</p>	
	<p>New Directive 4 Levying of the applicable charges in the case of Mixed Loads services</p> <p>Where any part of the connection given under one specific category, it shall not be utilized for any other purpose other than for which it is released that involves different higher applicable rate in the tariff schedule.</p>	

Sl. No.	Directive	Compliance Status
	Report the number of cases detected during FY 2020-21 and the additional revenues realised if any.	
	<p>New Directive 5 Levy of rebate/surcharge on availing supply at a voltage higher/lower than the applicable base load In dealing with such consumption loads, the billing shall be made strictly as per the clause 1.1as stipulated under general conditions of supply in Tariff Schedule. Report the number of cases detected during FY 2020-21 and the additional revenues realised if any.</p>	
	<p>New Directive 6 Conducting of Energy Audit & keeping proper metering system in place The MSPDCL shall also conduct system studies and energy audit after proper assessing of metering systems kept into operation. Further, segregation of technical and commercial loss has to be completed without any plausible excuses and initial report on these issues be submitted to Commission on or before end of September 2020. The Licensee shall submit the action plan being made to resolve this fundamental issue and also specify as to how it is going to manage the financial fund crunch without leaving the problem to perpetuation by 1st August 2021 on top priority.</p>	
New Directives issued by Hon'ble Commission in its tariff order for FY 2019-20		

Sl. No.	Directive	Compliance Status
	<p>Directive 35 Licensee shall submit the detailed information on the following items latest by 15th August 2019:-</p> <p><i>a)</i> 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.</p> <p><i>b)</i> Year- wise installation of pre-paid meter since adoption of the pre-paid metering system.</p> <p><i>c)</i> Circle wise installation of pre-paid meters giving details of sub-division with category wise consumers with activated pre-paid meters.</p> <p><i>d)</i> Report on the year wise impact of pre-paid metering in the billing efficiency and collection efficiency of -</p> <p>1) Sub-division, Division and Circle since the adoption of prepaid meters.</p> <p>2) Upto date circle wise, Division/Sub-division list of consumers with activated/unactivated prepaid meter.</p> <p>3) Plan and target date for installation and activation of pre-paid meter to all the consumers under MSPDCL.</p> <p>The Information should be submitted by June 2020. The Licensee is once again directed to submit the latest available status report on or before 30th June</p>	<p>MSPDCL is collecting the data and shall submit the same at the earliest possible</p>

Sl. No.	Directive	Compliance Status
	<p>2021 without fail and the non-compliance will be considered seriously.</p>	
	<p>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</p>	<p>MSPDCL is collecting the data and shall submit the same at the earliest possible</p>

Sl. No.	Directive	Compliance Status
	<p>revenue projection.</p> <p>This Information should be submitted by April 2020.</p> <p>The data base Information so gathered pertaining to FY 2020-21 and 2021-22 should be submitted by 1st June 2021 as the same reply is still awaited by the Commission from FY 2020-21 onwards.</p>	
	<p>Directive 37</p> <p>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 areas. This will also reduce un-accounted energy and Distribution losses of the DISCOM.</p> <p>The latest status should be submitted by May 2020.</p> <p>The latest status should be submitted by May 2020 is still not submitted to the Commission perusal and the Licensee shall submit the status report with up to</p>	<p>MSPDCL is collecting the data and shall submit the same at the earliest possible</p>

Sl. No.	Directive	Compliance Status
	date information by 15th June 2021.	
Old Directives		
	<p>Directive 2: <u>Annual Statement of Accounts</u> MSPDCL was directed to prepare separate Annual accounts statements such as balance sheet, profit and loss Account and relevant schedules and statements, 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</p>	<p>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.</p>

Sl. No.	Directive	Compliance Status
	<p>submission of the Audited annual accounts in full shape.</p> <p>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.</p> <p>MSPDCL should explain the reason/difficulty why annual accounts cannot be audited. For such a long period.</p> <p>As per the pre-commitment condition for the SLTT loan under Covid-19 policy, “The MSPDCL shall undertake to submit the Audited Annual Accounts for the FY 2016-17 to FY 2018-19 by 31.12.2020.” If it was complied with by 31.12.2020, why the audited accounts were not submitted along with the ARR submission made to Commission on February 2021, explain?</p>	
	<p>Directive 3:</p> <p><u>Maintenance of Asset & Depreciation Registers</u></p> <p>MSPDCL was directed to update the asset register and submit to the Commission soon.</p> <p>Submit and explain the registers to the Commission by May 2020</p>	<p>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.</p>

Sl. No.	Directive	Compliance Status
	<p>Why the registers are still pending for submission to Commission, if they are ready. For this reason, the Investment CAPEX, fresh Capitalisation and Depreciation & Return on Equity claims will not be considered from the ongoing ARR finalisation till such time this information which is ready in full shape is kept in abeyance intentionally by Licensee.</p> <p>This action of Commission is now in implementation from this Tariff order itself and also in all true-up claims being preferred.</p>	
	<p>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</p>	<p>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.</p>

Sl. No.	Directive	Compliance Status												
	<p>electricity bills.</p> <p>Report the date of operation full of the system by May 2020.</p> <p>The Commission is constrained to adopt some financial cut in this year's ARR onwards for this deliberate lapse in this Tariff Order finalisation until such time this lapse is continued.</p>													
	<p>Directive 5:</p> <p><u>Revenue Arrears</u></p> <p>MSPDCL was directed to assess year-wise Revenue Arrears due from consumers and submit a report to the Commission. The MSPDCL was also further directed to initiate action to collect/ liquidate the arrears.</p> <p>Through prepaid meters future accumulation of fresh arrears can be arrested. At present we are in Post-paid meters' usage stage. In the directive, it was</p>	<p>A summary of consumer bill outstanding is as follows;</p> <table border="1" data-bbox="1160 810 1854 1182"> <tbody> <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> </tbody> </table>	Opening as on 01.02.2014	431.12 Cr	31.03.2014	425.72 Cr	31.03.2015	437.43 Cr	31.03.2016	446.48 Cr	31.03.2017	470.59 Cr	31.03.2018	495.66 Cr
Opening as on 01.02.2014	431.12 Cr													
31.03.2014	425.72 Cr													
31.03.2015	437.43 Cr													
31.03.2016	446.48 Cr													
31.03.2017	470.59 Cr													
31.03.2018	495.66 Cr													

Sl. No.	Directive	Compliance Status
	<p>requested to submitted category wise year wise arrears due at a point of time say as on 31.03.2018.</p> <p>The Outstanding arrears are in increasing trend, which is cause of concern. The MSPDCL shall launch stringent revenue collection drive.</p> <p>The latest Revenue arrear dues as on 31.03.2021 and the amounts collected quarter-wise during FY 2019-20 and 2020-21 needs to be submitted to the Commission without fail or any plausible reason on or before 30th June 2021.</p>	
	<p>Directive 8: <u>Sale of Power outside the State</u></p> <p>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.</p> <p>The average power purchase cost is Rs.6.1685/kWh while the Outside State Sales at 4.2186/kWh and</p>	<p>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.</p> <p>Under UI mechanism the company has sold 39.64 MU of surplus energy available in 2018-19.</p> <p>Further, sale of surplus power on IEX has been reduced from 207.74 MU in FY 2017-18 to 130 MU in 2018-19.</p>

Sl. No.	Directive	Compliance Status
	<p>thereby causing loss of Rs.1.9503/kWh per units sold during the year which amounts to Rs.27.24 Crs of avoidable loss but sustained due to improper planning. As the above sold units also included the banked energy drawn, the purpose of banked energy is also vitiated altogether. This kind of loss-making transactions will no longer be considered for true-up in future.</p> <p>The MSPDCL shall work in perfect tandem with SLDC and plan for the energy requirement to suit and limit to their requirement and indiscriminate excess purchase of energy is very much undesirable even from the consumer point of view, who is ultimately bearing the financial burden for the improper inaction of the Department. Under any circumstances, the Outside State sales shall not exceed 40MU considering the unforeseen exigencies and uncertainties from 2021-22 onwards. This kind of any huge loss-making transactions will no longer be considered for true-up in future.</p> <p>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 if felt abnormal.</p>	<p>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.</p> <p>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 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.</p>

Sl. No.	Directive	Compliance Status
	<p>Directive 10:<u>Unauthorized Connection/ Theft of power Cases</u>&Directive 11:<u>Detailed Survey & Investigation</u></p> <p>In the above two directives, the Commission had directed to carryout detailed survey & Investigation to -</p> <ol style="list-style-type: none"> 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. 4. Verification & updating of names of the consumers etc. and 5. Regularize 30000 unauthorized consumers annually. <p>All unauthorized connections should be identified and regularized with appropriate penalties as per the provisions of Electricity Supply Code in vogue. A</p>	<p>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.</p> <p>For EC-II and EC-III, 100% per-paid metering will be achieved by the end of FY 2020-21.</p> <p>Physical verification drive shall be conducted in the FY 2020-21.</p> <p>100% physical verification shall be completed by 2020-21.</p>

Sl. No.	Directive	Compliance Status
	<p>vigorous drive should be pursued in this manner and progress achieved status shall invariably intimated to the Commission for each quarter within 15 days from such quarter completion.</p>	
	<p>Directive 12: <u>Replacement of Defective Meters and Installation of Meters to Un-Metered Connections</u> 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. A report in this regard should be submitted by MSPDCL soon after the issue of this order without any delay.</p>	<p>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.</p>
	<p>Directive 13: <u>Physical and Financial Status of RAPDRP & RGGVY Schemes</u></p>	<p>The details of Physical and financial status of RAPDRP & RGGVY Schemes shall be submitted at the earliest possible.</p>

Sl. No.	Directive	Compliance Status
	<p>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.</p> <p>The licensee shall submit the physical & financial progress achieved quarterly to the Commission until the completion of the works under both the schemes.</p> <p>A detailed up to date report as directed be submitted by May 2020.</p> <p>Though, the Directive was issued to submit a status reply by May 2020. Explain, why this kind of disorientation on the part of MSPDCL be treated as disobedience and Commission awaits your explanation in this matter for taking further suitable action.</p> <p>A report in this regard should be submitted by MSPDCL soon after the issue of this order without any delay.</p>	

Sl. No.	Directive	Compliance Status
	<p>Directive 16: <u>Investment Plan and Capping of Capital expenditure</u> Annual Investment Plan shall be submitted to the Commission and necessary approval of Commission shall be obtained for all major capital works. All capital works costing Rs.5.00 crores and above shall have to be submitted to Commission for prior approval before the works are taken up. The source of funding is immaterial. A report is to be submitted by May 2020.</p> <p>All capital works costing Rs.5.00 crores and above shall have to be submitted to Commission for prior approval before the works are taken up. The source of funding is immaterial. A report is to be submitted by June 2021.</p>	<p>No Such Capital Investment Plan has been proposed form MSPDCL own funds in the FY 2019-20 and FY 2020-21.</p>
	<p>Directive 17: Maximum Demand Indicator Meters (MDI) to be provided to all high value connections</p>	<p>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.</p>

Sl. No.	Directive	Compliance Status
	<p>Details of High Value consumers with MDI may be submitted by July 2020.</p> <p>Details of High Value consumers with MDI may be submitted by 15th June 2021.</p>	
	<p>Directive 18:</p> <p>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 the first instance and report compliance by 30.09.2016 positively.</p> <p>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</p>	<p>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 2020-21.</p>

Sl. No.	Directive	Compliance Status
	<p>of unmetered connections at the beginning of the quarter and installed during the quarter and balance to be installed.</p> <p>Compliance if fixing meters to all unmetered connections be repeated by 30.09.2019 positively.</p> <p>Metering of all consumers for proper revenue collection is of prime importance for the financial health of MSPDCL. All consumers are to be within 6 (six) months without fail.</p> <p>The status report on this matter is still awaited by the Commission to know the progress achieved in the field ground reality.</p>	
	<p>Directive 20:</p> <p><u>In house development of IT enabled system</u></p> <p>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.</p> <p>Targeted date by which MSPDCL will be independent with its IT team may be indicated.</p> <p>IT application should be provided in energy audit to</p>	<p>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.</p> <p>→powernodue.com: It is a domain which has a database of all the employees along with their connection status. It incorporates a hassle free fast and efficient process of getting no-dues certificate.</p> <p>→Indent: It is an IT enabled platform which facilitates and</p>

Sl. No.	Directive	Compliance Status
	<p>reduce AT&C losses. A report may be submitted in this regard by May 2020.</p> <p>The Commission desires that IT application should be provided in energy audit to reduce AT&C losses. A report may be submitted in this regard by May 2020 is still awaited and not complied with during FY 2020-21. The Status reply with reasons for delay in not sending earlier reply is expected by Commission on or before 15th June 2021.</p>	<p>streamlines the approval process for despatch from store to field. → Online prepaid recharge with e-wallets like NPCI Bharat Bill Payment System.</p> <p>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.</p>
	<p>Directive 21: <u>Updation of computerized billing program of power factor and rebate/surcharge</u></p> <p>MSPDCL should up-to-date computerized billing programme to facilitate adoption of power factor rebate/surcharge as indicated in the tariff schedule.</p> <p>Compliance may be reported in next tariff order. IT Cell should complete this within 6 (six) months'</p>	<p>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.</p>

Sl. No.	Directive	Compliance Status
	<p>time</p> <p>MSPDCL is taking pretty long time to accomplish in this matter and the IT Cell should complete this within 6 (six) months' time to reap its benefits but not for years to pass on.</p> <p>The status report on this matter is still awaited by the Commission to know the progress achieved in the field ground reality.</p>	
	<p>Directive 22:</p> <p><u>Installation of meters to all 11 kV feeders and DT's</u></p> <p>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.</p> <p>Targeted sale (date) by which 100% metering of 11 KV feeders be achieved may be intimated in the first insistence.</p>	<p>It is submitted that under RAPDRP Part-A 72 nos. of 11KV Feeder meters and 925 nos. of DT meters were installed.</p> <p>100% DTC metering could not be completed due to non-availability of energy meters and the same shall be completed in FY 2020-21.</p>

Sl. No.	Directive	Compliance Status
	<p>The details of 11kV feeders, where the meters are installed may be reported along with monthly energy transmitted through the feeder for any consecutive period of 3 (three) months may be submitted by June 2020 is still awaited and not complied with during FY 2020-21. The status reply with reasons for delay in not sending earlier reply is expected by Commission on or before 15th June 2021.</p>	
	<p>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 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-</p>	<p>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.</p>

Sl. No.	Directive	Compliance Status
	<p>16 to FY 2017-18 along with revised true up petitions be submitted soon.</p> <p>Audited -Annual Accounts for FY 2016-17 to FY 2017-18 along with true-up petition is pending. MSPDCL is directed to submit the same soon.</p>	
	<p>Directive 24</p> <p>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.</p> <p>The required formats as envisaged in JERC for M&M (MYT) Regulation are not submitted in full shape and the softcopy files were not made available. There are certain formats are printed from excel sheets partially just to fill the format and it is not what Commission wanted in the format submission (format - P3 is an example). In future all the formats are to be given to the Commission the original files in soft form along</p>	<p>MSPDCL has submitted all the necessary required information in the format prescribed.</p>

Sl. No.	Directive	Compliance Status
	<p>with built in formulas for commission analysis without fail.</p>	
	<p>Directive 25trivector/MDI meters The Commission is of the view to introduce KVAH billing in energy charges to all HT categories and LT categories with contracted load 20 kWh and above with effect from FY 2018-19 onwards. The licensee is directed to see that all HT connections are provided with trivector/MDI meters for such connections without fail. MSPDCL is directed once again to provide details of all HT consumers with required trivector/MDI meters.</p>	
	<p>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</p>	<p>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</p>

Sl. No.	Directive	Compliance Status
	<p>meters by MSPCL and MSPDCL.</p> <p>The details of first meter readings for 3 (three) consecutive months may be submitted is still awaited by the Commission during FY 2020-21 and the Licensee is once again directed to submit the latest available status report on or before 30th June 2021 without fail and the non-compliance will be considered seriously.</p>	<p>nominated. At present provisional meter readings, subject to correction, are taken in the presence of the Substation Staff using CMRI.</p>
	<p>Directive 30</p> <p>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).</p> <p>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,</p>	<p>The monthly wise feeder wise energy report is required to be reconciled with MSPCL and SLDC report.</p> <p>At present, energy accounting through DT metering could not be done due to the below reasons</p> <ul style="list-style-type: none"> ➤ 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 <p>MSPDCL has been installing 11 KV feeder meters on priority basis.</p>

Sl. No.	Directive	Compliance Status
	<p>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.</p> <p>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.</p> <p>The detailed report is to be submitted by June 2020 is still awaited by the Commission. The recurring charges for the installed systems can be included in the ARR.</p> <p>The Licensee is once again directed to submit the latest available status report on or before 30th June 2021 without fail and the non-compliance will be considered seriously.</p>	<p>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.</p>

Sl. No.	Directive	Compliance Status
	<p>Directive 31</p> <p>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.</p> <p>Targeted date by which KVAH billing will be introduced be reported by 30.06.2019.</p> <p>The Licensee is once again directed to submit the latest available status report on or before 30th June 2021 without fail and the non-compliance will be considered seriously.</p>	<p>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.</p> <p>The LT three phase consumers above 20 kW are having prepaid meters. They are being billed on kWh basis.</p>

9. Chapter 9: Prayers

MSPDCL requests Hon'ble Commission to:

- a. Admit the Petition for Limited Provisional True-up for FY 2020-21, APR for FY 2021-22, ARR & Tariff Determination for FY 2022-23, as submitted herewith;
- b. Approve the amounts claimed in the ARR for FY 2022-23;
- c. Approve the category-wise tariffs proposed by MSPDCL for FY 2022-23;
- d. Approve the changes proposed in the consumer categorization including introduction of new sub-categories;
- e. 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;
- f. Permit submission of any additional information required by the Commission during the processing of this Petition;
- g. Pass such other and further orders as are deemed fit and proper in the facts and circumstances of the case.

Manipur State Power Distribution Company Limited

Petitioner

Place: Imphal

Dated: December 2021