

## Petition for

Final True-up of FY 2022-23, APR of FY 2023-24, ARR of FY 2024-25

&

Tariff Determination for FY 2024-25

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

Ву

MANIPUR STATE POWER DISTRIBUTION COMPANY LIMITED (MSPDCL), IMPHAL

December, 2023

# BEFORE THE HONOURABLE JOINT ELECTRICITY REGULATORY COMMISSION FOR MANIPUR AND MIZORAM

FILING NO	1		
CASE NO _			

**IN THE MATTER OF:** Petition for Approval of Final True-up of FY 2022-23, APR for

FY 2023-24, ARR for FY 2024-25 for Manipur State Power Distribution Company Limited (MSPDCL) under Sections 45, 46, 61, 62 and 64 of the Electricity Act 2003 and as per the

JERC (Multi Year Tariff) Regulations 2014.

AND IN THE MATTER OF: Manipur State Power Distribution Company Limited

(hereinafter referred to as "MSPDCL", which shall mean for the purpose of this Petition the "Licensee" or "Petitioner")

having its registered office at Imphal, Manipur.

The Petitioner, under sections 45, 46, 61, 62 and 64 of the Electricity Act, 2003 files for initiation of proceedings by the Hon'ble Commission for deciding on the matters concerning the approval of Final True-up of FY 2022-23, APR for FY 2023-24, ARR for FY 2024-25, Tariff Determination for FY 2024-25 for Manipur State Power Distribution Company Limited (hereinafter referred to as "MSPDCL" or "Petitioner")

The Petitioner respectfully submits as under:

- 1. The Petitioner 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<sup>st</sup> 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 retail 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 2015-16, and the Hon'ble Commission issued separate Orders for Transmission and Distribution.
- 3. Pursuant to the enactment of 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.

- 4. MSPDCL hereby submits its Petition for approval of Final True up of FY 2022-23, APR for FY 2023-24, ARR for FY 2024-25 and Tariff Determination for FY 2024-25 in accordance with the principles specified in the JERC (Multi Yer Tariff) Regulations, 2014, and its subsequent amendments, as notified by the Hon'ble Commission.
- 5. MSPDCL prays to the Hon'ble Commission to admit the enclosed Petition of Final True up of FY 2022-23, APR for FY 2023-24, ARR for FY 2024-25 and Tariff Determination for FY 2024-25.

Manipur State Power Distribution Company Limited
Petitioner

Place: Imphal

Dated:

## **Table of Contents**

Chapter I	1: Introduction	6
1.1.	Historical Background	6
1.2.	Power Profile of MSPDCL	8
1.3.	Background of Regulatory Setup	8
1.4.	Contents of this Petition	9
2. Chapte	er 2: Overall Approach for Present Filing	10
2.1.	Approach for Filing	10
3. Chapte	er 3: True up of FY 2022-23	11
3.1.	Energy Sales	11
3.2.	Energy Balance and Transmission & Distribution Loss	12
3.3.	Energy Purchase	14
3.4.	Power Purchase Cost	15
3.5.	Transmission charges	16
3.6.	Operation and Maintenance Expenses	17
3.6.1.	Employee Expenses	17
3.6.2.	R&M Expenses	18
3.6.3.	A&G Expenses	18
3.7.	Interest on Working Capital	20
3.8.	Gross Fixed Assets and Depreciation	21
3.9.	Interest on Loan	22
3.10.	Return on Equity	23
3.11.	Write off of bad debts	23
3.12.	Non-tariff Income	23
3.13.	Aggregate Revenue Requirement	24
3.14.	Revenue Gap	24
Chapter 4	4: Annual Performance Review of FY 2023-24	25
4.1.	Energy Sales	25
4.2.	Energy Balance and Transmission & Distribution Loss	26
4.3.	Energy Purchase	28
4.4.	Transmission charges	30
4.5.	Operation and Maintenance Expenses	30
4.6.	Interest on Working Capital	31
4.7.	Gross Fixed Assets and Depreciation	31
4.8.	Interest on Loan	32
4.9.	Return on Equity	33
4.10.	Non-tariff Income	34
4.11.	Aggregate Revenue Requirement	34
4.12.	Revenue Gap	35
Chapter 5	5: ARR of FY 2024-25	36
1.1.	Preamble	36
1.2.	Energy Sales	36
1.2.1.	Approach for Sales	37
1.2.2.	Summary for growth and projections	37

	1.2.3.	Category-wise energy sold	37
	1.3.	Consumer Profile	39
	1.4.	Connected Load	41
	1.5.	T&D Loss	43
	1.6.	Energy Balance	43
	1.7.	Power Purchase Quantum and Cost	43
	Renewal	ble Purchase Obligations (RPO)	45
	1.8.	Transmission charges	46
	1.9.	Operation and Maintenance Expenses	46
	1.9.1.	Employee Expenses	46
	1.9.2.	R&M Expenses	47
	1.9.3.	A&G Expenses	48
	1.10.	Capital Expenditure Plan	48
	1.11.	Gross Fixed Assets and Depreciation	49
	1.12.	Interest and Finance charges.	49
	1.13.	Interest on Working Capital	50
	1.14.	Return on Equity	51
	1.15.	Non-tariff Income	51
	1.16.	Aggregate Revenue Requirement	51
Ci	hapter 6:	Tariff determination for FY 2024-25	53
	Tariff Pr	oposal for FY 2024-25	55
Ci	hapter 7:	Proposed Tariff schedule for FY 2024-25	58
Ci	hapter 8:	Prayers	78
Ci	hapter 9:	Annexures	79

## Chapter 1: Introduction

### 1.1. Historical Background

- 1.1.1. 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 Electricity 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.
- 1.1.2. 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 Electricity 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.
- 1.1.3. 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 neighboring 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.
- 1.1.4. 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).

- 1.1.5. 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).
- 1.1.6. Accordingly, MSPDCL is submitting the present petition for Final True up of FY 2022-23, APR for FY 2023-24, ARR for FY 2024-25 and Tariff Determination for FY 2024-25 for its Retail Supply Business to the Hon'ble Commission.

#### 1.2. Power Profile of MSPDCL

- 1.2.1. 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. Therefore, the State is dependent upon outside sources for meeting majority of its energy requirement. It is currently getting power from NTPC, NHPC, NEEPCO and ONGC Tripura Power Corporation (OTPC) Unit I and Unit II. The scheduled allocated firm share from the Central Sector generating stations to MSPDCL for current financial year from NTPC Bongaigaon, NEEPCO, NHPC and OTPC-I and II is currently around 254 MW.
- 1.2.2. 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 utilized.

The existing intra-state transformation capacity of Manipur consists of -

- (i) 18 number of 132 kV Substations with capacity of 811 MVA and line length of 776 Km.
- (ii) 1 number of 400 kV Substation with capacity of 315 MVA and line length of 45.1 Km.
- (iii) 107 number of 33 kV Substations with capacity of 955 MVA and line length of 1770 Km.
- (iv) 216 Feeders of 11 kV and above (rural and urban) and 9576 numbers of DTs (rural and urban).
- (v) MSPDCL's capacity of LT network is 903 MVA and capacity of HT network is 210 MVA.
- (vi) MSPDCL's Length of LT network is 20363 KM and Length of HT Network is 8113 Km.

### 1.3. Background of Regulatory Setup

- 1.3.1. 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.
- 1.3.2. JERC (Multi Year Tariff) Regulations, 2014 requires the Licensees to submit the True up Petition for the previous year and ARR Petition for the ensuing financial year before 30th November of the current year. Since, MSPDCL as a new corporate entity has

now completed the preparation of audited account statements till FY 22-23. To fulfil this statutory requirement, MSPDCL is filing the present Petition for approval of Final True up of FY 2022-23, APR for FY 2023-24, ARR for FY 2024-25 and Tariff Determination for FY 2024-25 in accordance with the JERC (MYT) Regulations, 2014, and its subsequent amendments.

## 1.4. Contents of this Petition

1.4.1. This Petition covers the final audited figures for Final True up of FY 2022-23, APR for FY 2023-24, ARR for FY 2024-25 and Tariff Determination for FY 2024-25 along with the audited account statements of FY 2022-23 as Annexure.

## 2. Chapter 2: Overall Approach for Present Filing

MSPDCL is filing the petition for the Final True up of FY 2022-23, APR for FY 2023-24, ARR for FY 2024-25 and Tariff Determination for FY 2024-25. MSPDCL has studied the previous trends and taken cognizance of other internal and external developments to estimate the likely performance for FY 2023-24 and FY 2024-25.

### 2.1. Approach for Filing

The present filing for the for the Final True up of FY 2022-23, APR for FY 2023-24, ARR for FY 2024-25 and Tariff Determination for FY 2024-25 is based on the principles enumerated by the Joint Electricity Regulatory Commission's (JERC) (Multi Year Tariff) Regulations, 2014 notified on 9 June, 2014.

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 2022-23, which forms the base for projections for the ensuing year FY 2023-24. Therefore, a final true up of FY 2022-23 has been prepared based on the actual sales and power purchase data. For data other than sales and power purchase, MSPDCL has considered the actual values for first six months of FY 2023-24 in such as for O&M, depreciation, interest and finance charges, interest on working capital and approved values for non-tariff income.

Projections of various cost components required for determination of Aggregate Revenue Requirement for FY 2024-25 along with the rationale for estimation of such cost and the philosophy have been covered in this section.

## 3. Chapter 3: True up of FY 2022-23

MSPDCL is, hereby, submitting petition for Final true up of FY 2022-23 as per Regulation 10.2 of JERC (Multi Year Tariff) Regulations, 2014 based on audited annual accounts. As per Regulation 10.6 of JERC (Multi Year Tariff) Regulations, 2014, the Commission has to undertake true up based on audited accounts and pass an order recording approved aggregate gain or loss on account of controllable factors and the amount of such gains or losses that may be shared in accordance with Regulation 13 of JERC (Multi Year Tariff) Regulations, 2014.

It may be noted that the present true-up Petition is based on the comparison of the actual expenses and revenue for FY 2022-23 with the expenses and revenue considered by the Hon'ble Commission in the Annual Revenue Requirement (ARR) of FY 2022-23 as decided in the JERC tariff Order of April, 2022.

### 3.1. Energy Sales

MSPDCL caters to a diverse consumer mix comprising of:

- Kutir Jyoti and LT Domestic
- LT & HT Commercial,
- LT & HT Industry
- Public Street Lighting
- Public Water Works
- Agriculture consumers.
- Bulk Consumers

LT Domestic category is the largest consumer category and comprises around 60% 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, DDUGJY and Saubhagya scheme. The actual category-wise energy sales as compared to the energy sales approved by the Hon'ble Commission in ARR for FY 2022-23 is given in the Table below:

Table 1: Category-wise Energy Sales (MU) for FY 2022-23

S No.	Particulars	Approved in ARR Order 2022-23	Approved in APR Order 2022-23	Actual (2022- 23)
Α	LT Supply			
1	Kutir Jyoti	4.23	3.96	0.00
2	Domestic	470.7	552.18	519.37
3	Commercial LT	65.16	64.94	101.26
4	Public Lighting	3.69	5.67	16.90
5	PWW	1.29	1.38	4.04
6	Irrigation and Agriculture	0	1.22	3.56
7	Cottage and Small Industries	22.95	20.76	25.80
	Total LT	568.02	650.11	670.93
В.	HT Supply	_	·	
8	Commercial HT	21.97	21.72	32.79

9	PWW	24.66	26.34	78.45
10	Irrigation and Agriculture	0.75	0.80	2.31
11	Medium Industries	4.62	4.72	6.38
12	Large Industries	10.66	9.28	12.62
13	Bulk Supply	93.98	101.07	31.91
	Total HT	156.64	163.93	164.46
	Grand Total (LT & HT)	724.66	814.04	835.39

The actual energy sales by MSPDCL in FY 2022-23 is 835.39 MU. The actual sales are higher than the ARR approved figures on account of rise in domestic category consumption due to rise in number of consumers because of various household electrifications schemes which started gaining pace from FY 19. The actual sales are in line with the provisionally approved APR figures.

The Hon'ble Commission is requested to approve the consumption parameters as submitted in the above table as same is uncontrollable on the part of MSPDCL.

## 3.2. Energy Balance and Transmission & Distribution Loss

The computation of actual Transmission & Distribution losses for FY 2022-23 is shown in the Table below:

Table 2: Actual Transmission and Distribution Losses for FY 2022-23

S No	Particulars	Unit	Details
1	Own Generation	MU	0
2	Power purchase from CGS	MU	1084.66
3	Add: UI Over drawl	MU	14.72
4	Add: IEX purchases	MU	68.50
5	Add: Returned Banking Energy	MU	113.84
6	Less: IEX sales	MU	68.75
7	Less: Banking mode sales	MU	142.82
8	Gross Energy handled at NER	MU	1070.15
9	Pool Losses	%	2.36%
10	Energy Losses at NER	MU	25.26
11	Net Energy available at NER after losses	MU	1044.89
12	Less: UI Under drawl	MU	14.77
13	Gross Energy handled at State Periphery	MU	1030.12
14	Total Sales (LT+HT)	MU	835.39
15	Distribution loss	MU	194.73
16	Transmission and Distribution loss	%	18.90%

The actual T&D Losses of 18.90% achieved by MSPDCL in FY 2022-23 against the approved figure of 20.50% approved by Hon'ble Commission in its ARR order for FY 2022-23.

Table 3: Transmission and Distribution Losses for FY 2022-23

Particulars	Approved in ARR order	Actual
Distribution Loss	20.50%	18.90%

It is submitted that energy availability for FY 2022-23 has been computed based on the actual Power purchase. Further, the transmission licensee, MSPCL operates the 33 kV network which

is the input point of the distribution network. It may to be noted that MSPDCL network periphery included only 11KV system and below whereas 33 KV and above transmission network falls under the MSPCL network. Therefore, segregating the MSPDCL distribution losses and MSPCL network losses, in absence of proper metering arrangements is not possible. Further, the Hon'ble Commission has stated that w.e.f. 01.02.2014, MSPDCL shall be responsible for distribution losses. In absence of an accurate figure of losses for 33 kV and above network, the Commission had calculated the losses without subtracting the intra state transmission losses (@ 8.895% in the ARR order) which led to overall T&D losses of 20.50%. Because of huge differences in the figures of intra state transmission losses of claimed and approved as well as year wise difference, we have shown the combined T&D losses here.

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, significant progress was made by MSPDCL in addition to the rural consumers. 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 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 higher than the Commission approved distribution losses as given in its ARR order. Further, MSPDCL is in the process of expanding the coverage of prepaid meters to reduce unauthorized usage of electricity and the T&D losses. As the coverage of prepaid meters increased in the state in the future years, the T&D losses gradually improved.

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

Table 4: Energy balance (MU) for FY 2021-22

S No	Particulars	Unit	Approved in ARR Order 22-23	Actuals FY 22-23
Α	Energy Requirement			
1	Energy Sales	MU	724.66	835.39
2	Distribution loss	%	20.50%	18.90%
3	Distribution loss	MU	186.86	194.73
4	Energy Requirement	MU	911.52	1030.12
В	Energy Availability			
5	Own Generation (Net)	MU	0	0
6	Power Purchase	MU	1103.70	1084.66
7	Less:External Losses	%	2.54%	2.36%
8	Less:External Energy Losses	MU	28.03	25.60
9	Net energy available at state periphery (5+6-8)	MU	1075.67	1059.06
10	Intra-State Transmission Loss	%	7.80%	7.80%
11	Intra-State Transmission Loss	MU	83.90	82.61
12	Energy Available for Distribution	MU	991.76	976.46
13	Surplus / (Deficit)	MU	80.24	-53.67
14	Surplus grossed up by Intra-state Transmission Loss for sale outside the state	MU	87.03	-53.71

The significant difference in actual energy surplus and approved energy surplus in FY 2022-23 is due to the difference in level of transmission and distribution loss and higher availability. Hence, MSPDCL requests the Hon'ble Commission to approve the energy balance, as shown in the Table above.

## 3.3. Energy Purchase

The actual Power Purchase cost as against the power purchase cost approved in the ARR /Tariff Order for FY 2022-23 is shown in the Table below:

Table 5: Energy Purchase for FY 2022-23 (MU)

S No.	Source	Approved in ARR Order 22-23	Approved in APR Order 22- 23	Actual (2022-23)
140.		Purchased (MU)	Purchased (MU)	Purchased (MU)
Α	CGS - NEEPCO			
1	Kopili - I HE	1.00		
2	Kopili - II HE	3.00		
3	Khandong HE	15.00		
4	Ranganandi HE Project	110.00	107.13	114.79
5	Doyang HE Project	15.00	14.23	13.41
6	Assam GBPP	105.00	142.24	132.89
7	Agartala GTPP I & II	70.00	68.72	71.37
В	CGS - NHPC			
1	Loktak HEP	180.00	127.58	106.01
2	Loktak Free power	62.00	63.26	56.17
С	Other			
1	Baramura GBPP Unit IV and V	32.00	11.18	11.18
2	OTPC Pallatana Unit I & II	225.00	399.40	342.42
D	New Plants			
1	NTPC Bongaigaon Unit I			
2	NTPC Bongaigaon Unit II	158.00	232.83	192.77
3	NTPC Bongaigaon Unit III			
4	Monarchak Gas Based PP (NEEPCO)			
5	Kameng HEP Stage I			
6	Kameng HEP Stage II			
7	Para HEP	40.00	40.41	43.65
8	Tuirial HEP			
9	Lower Subansiri Stage I			
10	Lower Subansiri Stage II			
11	Renewable – Solar			
12	Renewable – Non Solar			
1	TOTAL IEX Sale	<b>1016</b> -35	<b>1206.98</b> -110	<b>1084.66</b> -68.75
2	IEX Purchase	30.45	74.56	68.51
3	UI Overdrawl	33.10	13.2	14.72
4	UI Underdrawl		-11.76	17.72
	Total	1011.45	1172.98	1099.14

As can be seen from the above Table, the actual power purchase quantum in FY 2022-23 was 1167.89 MU, which is higher than the approved quantum of 1011 MU.

The Hon'ble Commission is requested to approve the power purchase based on the actuals as shown in the table above.

#### 3.4. Power Purchase Cost

The actual Power Purchase cost as against the power purchase cost approved in the ARR /Tariff Order for FY 2022-23 is shown in the Table below:

Table 6: Power Purchase Cost for FY 2022-23 (Rs. Crore)

	Table 6: Power Purchase Cost for FY 2022-23 (Rs. Crore)								
			d in ARR 22-23		d in APR 22-23	Actual (2	ıl (2022-23)		
S No.	Source	Total Cost (Rs Cr)	Average rate (Rs/kWh)	Total Cost (Rs Cr)	Average rate (Rs/kWh)	Total Cost (Rs Cr)	Average rate (Rs/kWh)		
	CGS -								
A	NEEPCO	0.14	4.40				ı		
1	Kopili - I HE	0.44	4.40						
2	Kopili - II HE	1.46	4.87						
3	Khandong HE	2.62	1.75						
4	Ranganandi HE Project	24.64	2.24	22.33	2.08	26.21	2.28		
5	Doyang HE Project	10.61	7.07	8.63	6.06	9.67	7.21		
6	Assam GBPP	43.73	4.16	87.38	6.14	82.42	6.20		
7	Agartala GTPP	31.71	4.53	40.09	5.83	42.14	5.90		
В	CGS - NHPC								
1	Loktak HEP	66.24	3.68	42.82	3.36	38.90	3.67		
2	Loktak Free power	0	0.00		0.00	0.00	0.00		
С	Other								
1	Baramura GBPP Unit IV and V	19.49	6.09	5.13	4.59	5.13	4.59		
2	OTPC Pallatana Unit I & II	98.07	4.36	131.30	3.29	101.78	2.97		
D	New Plants								
2	NTPC Bongaigaon Unit I NTPC Bongaigaon Unit II NTPC	168.11	10.64	149.91	6.44	118.17	6.13		
3	Bongaigaon Unit III								
4	Monarchak Gas Based PP (NEEPCO)								
_	Kameng HEP								
5 6	Stage I Kameng HEP Stage II								
7	Para HEP	20.02	5.01	20.21	5.00	21.16	4.85		
<i>'</i>	Fala HEF	20.02	0.01	ZU.Z I	5.00	21.10	7.00		

8	Tuirial HEP						
	Lower						
	Subansiri						
9	Stage I						
	Lower						
	Subansiri						
10	Stage II						
	Renewable -	32.1				_	
11	Solar	32.1					
	Renewable -	0					
12	Non Solar	U					
	TOTAL	519.24	5.11	507.8	4.21	445.58	4.11
E	Short-Term Pov	ver Purchas	ie .				
1	IEX Purchase	8.53		26.1	3.50	54.69	7.98
F	UI						
1	UI Overdrawl			2.8	2.12	5.99	4.07
	Supplementary	40				83.52	
1	bills					30.02	
	Total	567.77	5.61	536.70	4.58	589.78	5.05

As per the above table, the actual power purchase cost is Rs. 589.78 Crore for FY 2022-23. The actual cost is higher than the approved figure of Rs. 567.77 Crore in ARR of 2022-23.

The Petitioner has paid Rs. 83.52 Crore of supplementary bills to the generators. These bills were raised by the generators as a result of additional costs allowed by the Regulators. The payment of these supplementary bills are uncontrollable on part of the Petitioner. Therefore, the Petitioner requests the Hon'ble Commission to approve the supplementary bills of Rs. 83.52 Crore for FY 2022-23.

The Hon'ble Commission is requested to approve the power purchase cost as submitted in the above table as the same is uncontrollable and unavoidable on part of MSPDCL.

#### 3.5. Transmission charges

The transmission charges include the charges paid to PGCIL, MSPCL and SLDC charges. The summary of transmission charges approved by the Commission in ARR order and the actual charges paid by MSPDCL for FY 2022-23 is as follows:

Table 7: Transmission Charges for FY 2022-23 (Rs. Crore)

S No.	Particulars	Approved in ARR Order 22-23	Approved in APR order 22- 23	Actual
1	PGCIL Charges	93.8	104.2	87.98
2	MSPCL Charges	93.86	0	64.20
3	SLDC Charges	0	0	0.70
4	NERLDC Charges	0.71	0.71	1.00
	Total	188.37	104.91	153.88

The transmission charges are uncontrollable in nature as the same are levied based on approved cost and orders of CERC and JERC as applicable for inter-state and intra state transmission respectively.

As such, MSPDCL requests the Hon'ble Commission to approve the actual Transmission Charges of Rs. 153.88 Cr. for FY 2022-23, as shown in the Table above.

## 3.6. 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. In the FY 2022-23, MSPDCL has incurred the O&M expenses as follows:

### 3.6.1. Employee Expenses

Employee Expenses includes the Basic Pay, Dearness Pay, Dearness allowances, house rent allowances, and other allowances, new pension scheme paid to the MSPDCL cadre, staff etc. The liabilities for terminal benefits for the employees transferred from the erstwhile Electricity Department of Manipur are directly borne by the State Government and are not included in the employee cost claimed here.

The reason for increase in employee expenses in FY 2023 is

- i. 7<sup>th</sup> Pay arrears which has been accumulated for the last 2-3 years and paid in FY 23.
- ii. Creation of provision for gratuity, leave encashment and commutation of regular employees.

The actual employee expenses based on audited accounts for FY 2022-23 as compared with those approval in the Tariff Order are shown in the Table below:

Table 8: Employee Expenses for FY 2022-23 (Rs. Crore)

Particulars	Approved in ARR order 22-23	Approved in APR order 22-23	Actual
Total Employee Expenses	77.15	72.02	96.07

The break-up of actual employee strength during FY 2022-23 is shown below:

Table 9: Actual Employee Strength of MSPDCL in FY 2022-23

S	Particulars	Employee Strength as	Employee Strength
No		on 31 <sup>st</sup> March 2022	as on 31st March 2023
1	Regular	1139	938
2	Work charge	121	76
3	Muster roll	22	17
4	Contract	15	2
	Total	1297	1033

MSPDCL, thus, requests the Hon'ble Commission to approve the actual Employee Expenses of Rs. 96.07 Crore for FY 2022-23.

#### 3.6.2. 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 based on audited accounts for FY 2022-23 are given below as per the different accounting heads used for booking R&M expenses:

Table 10: Break-up of R&M Expenses for FY 2022-23 (Rs. Crore)

S No	Particulars	Actual
1	Repair & Maintenance Expenses (Plant and Machinery)	7.34
2	Repair & Maintenance Expenses (Others)	1.66
3	O&M Expenses	15.19
4	Stores and Consumables	1.21
	Total	25.40

The actual R&M expenses as compared as compared to the approved expenses are as follows:

Table 11: R&M Expenses for FY 2022-23 (Rs. Crore)

Particulars	Approved in ARR order 22-23	Approved in APR order 22-23	Actual
R&M Expenses	8.25	11.78	13.18

The actual R&M expenses are higher than the approved values by the Hon'ble Commission for FY 2022-23. The R&M expenses approved by Hon'ble Commission in the ARR order of FY 2022-23 has been around 1% of the approved GFA. The reason of this is that the R&M expenses are projected on low baseline. However, the actual R&M expenses are around 2% of the asset base The Petitioner submits that, R&M expenses are uncontrollable in nature as the distribution utility is required to spend on maintenance of network to comply with the Standards of Performance laid by the Commission.

Hence, in the above context, MSPDCL therefore, requests the Hon'ble Commission to approve the actual R&M expenses of Rs. 13.18 Crore for FY 2022-23.

## 3.6.3. 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 2022-23 based on audited accounts are as follows:

Table 12: A&G Expenses for FY 2022-23 (Rs. Crore)

Particulars	Amount (in lakhs)
Auditors Remuneration	1
ROC Filing Fees	4
Advertisement Expenses	3
Bank Charges	5
BEE charges	83
Consultancy Charges	82
Ex-gratia payment	27
JERC Fees and Expenses	38
Office Expenses	53
O&M Expenses	40
Legal Fees and Charges	7
Festival	50
Saubhagya Post Capitalisation Exp	237
Printing & Stationary Expenses	7
Repair & Maintenance Expenses (Plant and	
Machinery)	444
Repair & Maintenance Expenses (Others)	50
Stores and Consumables	784
Prepaid Vending Charges	17
Telephone Expenses	9
Travelling Exp	17
Vehicle hiring, Repairs and Maintenance	68
Interest and Penalty	1
Purchase of LED lights	-
Preliminary Expenses Written Off	-
Prior period expenses	38.97
(-) R&M Expenses	1318
Total	1044

The actual A&G expenses as compared to the approved figure in ARR of FY 2022-23 is as follows:

Table 13: A&G Expenses for FY 2022-23 (Rs. Crore)

Particulars	Approved in ARR order 22-23	Approved in APR order 22-23	Actual
A&G Expenses	6.12	6.24	7.46

MSPDCL requests the Hon'ble Commission to approve the actual A&G expenses of Rs. 7.46 Crore based on the audited accounts for FY 2022-23 and based on the detailed break-up of the actual cost as provided above.

The total O&M expenses incurred in FY 2022-23 as per audited accounts are shown in the Table below:

Table 14: Actual O&M Expenses for FY 2022-23 (Rs. Crore)

S No.	Particulars	Approved in ARR Order 22-23	Approved in APR order 22- 23	Actual
1	Employee Expenses	77.15	72.02	96.07
2	R&M Expenses	6.12	6.24	13.18
3	A&G Expenses	8.25	11.78	7.46
	Total	91.52	90.04	116.71

The actual O&M expenses are thus, higher than the O&M expenses approved by the Hon'ble Commission in the Tariff Order for FY 2022-23. MSPDCL requests the Hon'ble Commission to approve the actual O&M expenses of Rs. 116.71 Crore for FY 2022-23.

### 3.7. Interest on Working Capital

As per Regulation 29.4 of JERC Terms and Conditions of Tariff Regulations 2014, Distribution Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

- (a) Operation and maintenance expenses for one month; plus
- (b) Maintenance spares at one (1) per cent of the historical cost escalated at 6% from the date of commercial operation; plus
- (c) Receivables equivalent to one (1) month of the expected revenue from sale of electricity at the prevailing tariffs; minus
- (d) Amount held as security deposits under clause (a) and clause (b) of sub-section (1) of Section 47 of the Act from consumers except the security deposits held in the form of Bank Guarantees;

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

The computation of normative Interest on Working Capital (IoWC) for MSPDCL for FY 2022-23, is shown in the Table below:

Table 15: Interest on Working Capital for FY 2022-23 (Rs. Crore)

S No.	Particulars	Approved in ARR Order 22-23	Approved in APR Order 22- 23	Actual (2022- 23)
1	O & M Expenses one month			9.73
2	Maintenance of spares @ 1% of GFA Escalated by 6%			26.23
3	Receivable one month			38.72
4	Less: Total Security Deposit			27.23
5	Net WC requirement			47.08
6	Interest Rate			12.90%
	Interest of Working Capital	0.00	0.00	6.12

MSPDCL requests the Hon'ble Commission to approve the IoWC of Rs.6.12 Crore for FY 2022-23.

## 3.8. Gross Fixed Assets and Depreciation

The depreciation for FY 2022-23 has been claimed as per the audited accounts.

Table 16: Actual Depreciation for FY 2022-23 (Rs. Crore)

S No.	Particulars	Approved in ARR Order 22-23	Approved in APR Order 22- 23	Actual (2022-23)
1	Depreciation	1.84	1.83	19.14

The detailed break up of actual depreciation booked in accounts is shown below:

Table 17: Depreciation for FY 2022-23 (Rs. Crore)

		Gross Block			Accounted	d Depreciation		Net Block
Particulars	Opening Balance as on 01-04- 2022	Additions	Closing Balance as on 31-03- 2023	Opening Balance as on 01-04- 2022	Charged during the period	Amortisation of deferred income	Closing Balance as on 31-03- 2023	Closing Balance as on 31-03- 2023
Tangible Assets								
Distribution Assets								
Plant & Machinery	2326.93	0.00	2326.93	221.17	14.05	37.42	272.64	2054.29
Building	51.22	18.14	69.36	3.75	0.28	0.66	4.69	64.67
Furniture & fittings	1.29	0.11	1.40	0.85	0.12	0.00	0.97	0.43
Computer	9.75	0.03	9.77	4.31	2.49	0.00	6.80	2.98
Heavy Equipments	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.05
Heavy Vehicle	0.88	0.00	0.88	0.33	0.05	0.00	0.38	0.50
Office Equipments	0.04	0.00	0.04	0.04	0.00	0.00	0.04	0.00
Vehicle	5.74	0.12	5.86	3.92	0.60	0.00	4.53	1.33
Land	0.35	0.00	0.35	0.00	0.00	0.00	0.00	0.35
Software	15.47	0.00	15.47	15.05	0.10	0.00	15.15	0.31
Generation Assets								
Plant & Machinery	49.25	0.00	49.25	11.00	1.25	0.00	12.25	37.00
Building	13.48	0.00	13.48	1.95	0.21	0.00	2.16	11.32
Furniture & fittings	0.03	0.00	0.03	0.03	0.00	0.00	0.03	0.00
Computer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Office Equipments	0.05	0.00	0.05	0.05	0.00	0.00	0.05	0.00
Vehicle	0.03	0.00	0.03	0.03	0.00	0.00	0.03	0.00
Total	2474.56	18.40	2492.95	262.48	19.14	38.08	319.71	2173.25

In the above table, the depreciation charged on the assets booked as capital reserve / equity is Rs. 19.14 Crore.

The assets transferred to MSPDCL at the time of restructuring of erstwhile EDM are not booked as grants but as capital reserve/ equity. As such, the depreciation should be allowed on the entire assets transferred from the erstwhile EDM into the corporate entity of MSPDCL.

MSPDCL requests the Hon'ble Commission to approve the depreciation of Rs.19.14 Crore for FY 2022-23.

#### 3.9. 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 some amount of loan from REC for RAPDRP-B Project and RGGVY project for meeting counterpart funding as per Gol scheme guidelines. 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 18: Break-up of Loan for FY 2022-23 (Rs. Crore)

S No.	Particulars	RGGVY	SS- II	Loan 3 (REC- RAPDRP- B)	Installation of 130W LED Street Lights & 20m High Mast Lighting	Prepaid Meter Loan Valley (16113)	Prepaid Meter Loan Valley (16114)	SLTTL	LPS
1	Opening Loan	8.50		23.90	6.46	40.06	23.01	79.5	78.2
2	Addition during the Year	1.60			6.45	32.30	24.40	31.98	29.32
3	Repayment during the year	1.70		3.90	0.00	0.00		0	0
4	Closing Loan	8.40	0.00	20.00	12.91	72.36	47.41	111.48	107.52
5	Average Loan	8.45		21.95	9.69	56.21	35.21	95.49	92.86
6	Rate of Interest	Multiple		11.70%	10.50%	10.60%	10.60%	9.50%	9.75%
7	Interest & Finance Charges	1.94		2.57	0.96	5.50	3.97	9.07	9.05

Table 19: Interest on Loan for FY 2022-23 (Rs. Crore)

S No.	Particulars	Approved in ARR Order 22-23	Approved in APR order 22-23	Actual
1	Interest & Finance Charges	17.62	0.00	33.06

MSPDCL requests the Hon'ble Commission to kindly approve the interest on loan of Rs. 33.06 Crore for FY 2022-23.

## 3.10. Return on Equity

As per audited accounts, the RoE is computed on paid up capital of Rs. 10.05 Crore at the rate of 15.50% as stated in clause 26.1 of JERC (Multi Year Tariff) regulations 2014

Table 20: Return on Equity for FY 2021-22 (Rs. Crore)

S No.	Particulars	Approved in ARR Order 22-23	Approved in APR order 22- 23	Actual
1	Average Equity	10.05	10.05	10.05
2	RoE %	15.50%	15.50%	15.50%
3	Return on Equity	1.56	1.56	1.56
4	MAT Rate applicable	0.00%	0.00%	0.00%
	Net RoE (Grossed up by MAT rate)	1.56	1.56	1.56

MSPDCL requests the Hon'ble Commission to approve the Return on Equity of Rs.1.56 Crore for FY 2022-23.

## 3.11. Write off of bad debts

As per the audited accounts for FY 2022-23, the receivables from consumers are Rs. 630.68 Crore including inherited legacy debts of EDM since the time of unbundling.

MSPDCL has booked 15.6 crore as bad debts in the accounts for FY 2022-23.

## 3.12. Non-tariff Income

The Hon'ble Commission approved Non-Tariff Income of Rs. 8 Crore in the ARR for FY 2022-23. The actual Non-Tariff Income earned by MSPDCL in FY 2022-23 was Rs. 9.65 Crore, as shown in the Table below:

Table 21: Break-up of Non-tariff Income for FY 2022-23 (Rs. Crore)

S No.	Particulars	Approved in ARR Order 22-23	Approved in APR Order 22-23	Actual (2022-23)
1	Interest Income			4.40
	Agency Charges @			
2	3.75%			1.65
3	Others			3.60
	Total			9.65

The actual Non-tariff income as compared to the approved figure in ARR of FY 2022-23 is as follows:

Table 22: Non-tariff Income for FY 2022-23 (Rs. Crore)

S No.	Particulars	Approved in ARR Order 22-23	Approved in APR Order 22-23	Actual (2022-23)
1	Non-tariff Income	8.00	8.00	9.65

MSPDCL requests the Hon'ble Commission to approve the actual Non-Tariff Income of Rs. 9.65 Crore for FY 2022-23.

## 3.13. 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 for FY 2022-23, is given in the Table below:

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

S No.	Particulars	Approved in ARR Order 22-23	Approved in APR Order 22- 23	Actual (2022-23)
Α	Cost of power purchase	567.77	536.70	589.72
В	Transmission charges 188.37		104.91	153.88
С	O&M Expenses 91.52		90.04	116.71
1	Employee Expenses	77.15	72.02	96.07
2	A&G Expenses	6.12	6.24	7.46
3	R&M Expenses	8.25	11.78	13.18
D	Depreciation	1.84	1.83	19.14
Е	Interest on Loan	17.62 0.00		33.06
F	Interest on Working Capital	0.00 0.00		6.12
G	Bad Debt	t 0.00		15.60
Н	Total Cost	867.12	733.48	934.23
ı	Add: RoE	1.56	1.56	1.56
J	Add: Income Tax	0.00	0.00	0.00
K	Total	868.68	735.04	935.79
L	Less: Non Tarif Income	8.00	8.00	9.65
М	Less: Efficiency Gains	40.00	0.00	0.00
N	Aggregate Revenue Requirement (ARR)	820.68	727.04	926.14
0	Revenue from sale of surplus power	14.32	61.18	33.09
Р	Net ARR	806.36	665.86	893.05

The revenue from sale of power to consumers for FY 2022-23 was Rs. 418.96 Crore as approved by Hon'ble Commission in its ARR order for FY 2022-23. The actual revenue from sale of power to consumers in FY 2022-23 is Rs. 469.26 Crore as per audited accounts.

MSPDCL requests the Hon'ble Commission to approve the same.

#### 3.14. Revenue Gap

The Revenue Gap of MSPDCL for FY 2022-23 as against the Revenue Gap approved by the Hon'ble Commission in the ARR Order for FY 2022-23 is shown in the Table below:

Table 24: Revenue Gap for FY 2022-23 (Rs. Crore)

S No.	Particulars	Approved in ARR Order 22-23	Approved in APR order 22-23	Actual 22-23
1	Net ARR after considering outside sale income	806.36	665.86	893.05
2	Total Revenue from consumer tariff	418.96	608.28	469.26
3	Revenue Gap before Govt. Subsidy (1-2)	387.4	57.58	423.79
4	State Government Revenue Subsidy	172.4	290.38	264.5
5	Revenue Gap / (Surplus) (4-3)	215	(232.8)	159.29

Based on the audited ARR and revenue figures mentioned in the table above, MSPDCL requests the Hon'ble Commission to pass the **revenue gap of INR 159.29 crores and pass through the same in future ARR calculations.** 

## Chapter 4: Annual Performance Review of FY 2023-24

The Petitioner humbly submits that the present APR is based on actual provisional expenses of FY 2023-24 from first six-month data available for FY 2023-24. 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 2023-24 as approved in the JERC tariff Order in Petition (ARR & Tariff) (henceforth referred as 'Approved' order with reference to FY 2023-24). However, the Petitioner requests Hon'ble Commission to review the expenses and revenue for FY 2023-24 based on the trend observed as per actual data.

### 4.1. Energy Sales

MSPDCL caters to a diverse consumer mix comprising of:

- Kutir Jyoti and LT Domestic
- LT & HT Commercial,
- LT & HT Industry
- Public Street Lighting
- Public Water Works
- Agriculture consumers.
- Bulk Consumers

LT Domestic category is the largest consumer category and comprises around 60% 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, DDUGJY and Saubhagya scheme. 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 2023-24 is given in the Table below:

Table 25: Category-wise Energy Sales (MU)

S No.	Particulars	Approved in ARR Order 23-24	Six months actuals	Revised Projections (B)
Α	LT Supply			
1	Kutir Jyoti	3.96	0.00	0
2	Domestic	607.4	254.94	509.88
3	Commercial LT	71.43	50.97	101.94
4	Public Lighting	5.73	1.94	3.88
5	PWW	1.38	5.05	10.1
6	Irrigation and Agriculture	0	0.00	0
7	Cottage and Small Industries	20.97	7.30	14.6
	Total LT	710.87	320.2	640.4

В.	HT Supply			
8	Commercial HT	23.89	17.96	35.92
9	PWW	28.97	22.71	45.42
10	Irrigation and Agriculture	1	0.41	0.82
11	Medium Industries	4.77	4.57	9.14
12	Large Industries	10.21	9.38	18.76
13	Bulk Supply	103.08	52.45	104.9
	Total HT	171.92	107.48	214.96
	Grand Total (LT & HT)	882.79	427.68	855.36

MSPDCL requests the Commission to approve the revised sales projections for FY 2023-24.

## 4.2. Energy Balance and Transmission & Distribution Loss

The computation of revised Transmission & Distribution losses for FY 2023-24 is shown in the Table below:

Table 26: Estimated Transmission and Distribution Losses for 2023-24

S No	Particulars	Unit	Details
1	Own Generation	MU	0.00
2	Power purchase from CGS	MU	1093.14
3	Add: UI Over drawl	MU	13.52
4	Add: IEX purchases	MU	63.50
5	Add: Returned Banking Energy	MU	77.00
6	Less: IEX sales	MU	83.41
7	Less: Banking mode sales	MU	53.09
8	Gross Energy handled at NER	MU	1109.05
9	Pool Losses	%	2.36%
10	Energy Losses at NER	MU	26.17
11	Net Energy available at NER after losses	MU	1082.88
12	Less: UI Under drawl	MU	13.68
13	Gross Energy handled at State Periphery	MU	1069.20
14	Total Sales (LT+HT)	MU	855.36
15	Distribution loss	MU	213.84
16	Transmission and Distribution loss	%	20.0%

The projected T&D Losses of 20.0% is expected be achieved by MSPDCL in FY 2023-24 against the approved figure of 18.82% approved by Hon'ble Commission in its ARR order. Because of the law and order situation of the state, system strengthening works like augmentation of LT lines, replacement of DTRs, replacement of naked line with AB Cables and conversion from conventional meter to prepaid meter has been delayed. T&D loss is expected to increase a bit as a result.

Table 27: Transmission and Distribution Losses for APR of FY 2023-24

S No	Particulars	Approved in ARR Order 23-24	Revised Projections (B)
1	Distribution Loss	18.82%	20.0%

It is submitted that energy availability for FY 2023-24 has been computed based on the actual Power purchase from April to September 2023 and previous year's pattern. Further, the transmission licensee, MSPCL operates the 33 kV network which is the input point of the distribution network. It may to be noted that MSPDCL network periphery included only 11KV system and below whereas 33 KV and above transmission network falls under the MSPCL network. Therefore, segregating the MSPDCL distribution losses and MSPCL network losses, in absence of proper metering arrangements is not possible. Further, the Hon'ble Commission has stated that w.e.f. 01.02.2014, MSPDCL shall be responsible for distribution losses. In absence of an accurate figure of losses for 33 kV and above network, the Commission had calculated the losses without subtracting the intra state transmission losses.

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, significant progress was made by MSPDCL in addition to the rural consumers. 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 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 higher than the Commission approved distribution losses as given in its ARR order. Further, MSPDCL is in the process of expanding the coverage of prepaid meters to reduce unauthorized usage of electricity and the T&D losses. As the coverage of prepaid meters increased in the state in the future years, the T&D losses gradually improved.

Table 28: Energy balance (MU) for APR FY 2023-24

SI No	Particulars	Unit	FY 2023- 24
1	Energy Sales	MU	855.36
2	T&D Loss	%	20.00%
3	T&D Loss	MU	213.84
4	Energy Requirement at State periphery (1+3)	MU	1069.20
5	Inter-State Transmission Losses	%	2.36%
6	Inter-State Transmission Losses	MU	26.17
7	Total Energy Requirement (4+6)	MU	1095.04
8	Total Energy Available from Long Term Sources	MU	1093.14
9	Net Surplus / (Deficit) at State Periphery (7-8)	MU	-1.90
10	Net Surplus Energy Surplus/Deficit for Short Term Sale/Purchase	MU	-1.95

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.

## 4.3. Energy Purchase

MSPDCL receives allocated power from various Central Generating Stations in North Eastern Region, viz., NEEPCO, NHPC, OTPC- Palatana, and NTPC Bongaigaon for power purchase under long term PPAs. The proposed power purchase for FY 2023-24 has been projected based on the annual allocation of different power projects.

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 2023-24, actual power purchase during the first six months is considered along with the pattern of availability of plants in next six months.

The revised energy purchase for FY 2023-24 is proposed in the Table below:

Table 28: Power Purchase Cost and Quantum for APR FY 2023-24

		Approve	Approved in ARR Order 23-24			Revised Projections		
S No.	Source	Purchased (MU)	Total Cost (Rs Cr)	Average rate (Rs/kWh)	Purchased (MU)	Total Cost (Rs Cr)	Average rate (Rs/kWh)	
Α	CGS - NEEPCO							
1	Kopili - I HE	63.52	8.17	1.29	7.23	1.70	2.36	
2	Kopili - II HE	4.75	0.83	1.75	6.63	1.64	2.47	
3	Khandong HE	10.87	2.47	2.27	0.00	0.00	0.00	
4	Ranganandi HE Project	106.40	25.11	2.36	91.43	23.95	2.62	
5	Doyang HE Project	12.41	8.44	6.80	12.55	7.75	6.18	
6	Assam GBPP	129.85	64.28	4.95	146.24	95.84	6.55	
7	Agartala GTPP I & II	71.43	34.8	4.87	66.80	40.70	6.09	
В	CGS - NHPC							
1	Loktak HEP	143.85	53.87	3.74	30.52	13.99	4.58	
2	Loktak Free power	60.91	0	0.00	20.22	0.00		
С	Other							
1	Baramura GBPP Unit IV and V	0.00	0.00	0.00	0.00	0.00	0.00	
2	OTPC Pallatana Unit I & II	306.42	107.68	3.51	328.04	109.70	3.34	
D	New Plants							
1	NTPC Bongaigaon Unit I							
2	NTPC Bongaigaon Unit II	231.87	153.78	6.63	349.60	207.82	5.94	
3	NTPC Bongaigaon Unit III							
4	Monarchak Gas Based PP (NEEPCO)							

5	Kameng HEP Stage I						
6	Kameng HEP Stage II						
7	Para HEP	39.79	20.44	5.14	33.89	18.11	5.34
8	Tuirial HEP						
9	Lower Subansiri Stage I	77.09	38.54	5.00			
10	Lower Subansiri Stage II						
11	Renewable – Solar		19.24				
12	Renewable – Non Solar		0				
	TOTAL	1259.16	537.65	4.27			
E	Short-Term Pov	ver Purchase		•	•	•	
1	IEX Purchase	50.35	27.89	5.54	63.50	41.28	6.50
F	UI						
1	UI Overdrawl	13.01	3.38	2.60	13.52	5.38	3.98
	Supplementary bills		0.87			19.82	
	Total	1322.52	569.79	4.31	1170.16	587.67	5.02

MSPDCL, therefore, requests the Hon'ble Commission to approve the revised power purchase costs for FY 2023-24.

## 4.4. Transmission charges

The transmission charges include the charges paid to PGCIL, MSPCL and SLDC charges. The summary of transmission charges approved by the Commission in ARR order and the revised projections for FY 2023-24 is as follows:

Table 29: Transmission charges for APR FY 2023-24

S No.	Particulars	Approved in ARR Order 23-24	Revised Projections
1	PGCIL Charges	109.41	92.38
2	MSPCL Charges	52.56	74.00
3	SLDC Charges	0	0.74
4	NERLDC Charges	0.71	0.71
	Total	162.68	167.8

The transmission charges are uncontrollable in nature as the same are levied based on approved cost and orders of CERC and JERC as applicable for inter-state and intra state transmission respectively.

As such, MSPDCL requests the Hon'ble Commission to approve the Revised transmission cost.

### 4.5. 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 2023-24 based on six months data, revised projection of the O&M expenses as follows:

Table 30: O&M Expenses for APR FY 2022-23

S No.	Particulars	Approved in ARR Order 23-24	Revised Projections
1	Employee Expenses	79.22	101.57
2	A&G Expenses	8.95	7.89
3	R&M Expenses	12.45	13.93
	Total	100.62	123.39

Accordingly, MSPDCL submits Hon'ble Commission to approve the proposed O&M costs of Rs. 123.39 Crore for FY 2023-24.

### 4.6. Interest on Working Capital

As per Regulation 29.4 of JERC Terms and Conditions of Tariff Regulations 2014, Distribution Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

- (a) Operation and maintenance expenses for one month; plus
- (b) Maintenance spares at one (1) per cent of the historical cost escalated at 6% from the date of commercial operation; plus
- (c) Receivables equivalent to one (1) month of the expected revenue from sale of electricity at the prevailing tariffs; minus
- (d) Amount held as security deposits under clause (a) and clause (b) of sub-section (1) of Section 47 of the Act from consumers except the security deposits held in the form of Bank Guarantees:

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

The computation of normative Interest on Working Capital (IoWC) as per Regulation 29.4 of JERC Terms and Conditions of Tariff Regulations 2014 for MSPDCL for FY 2023-24, is shown in the Table below:

**Approved** in ARR Revised S No. **Particulars** Order **Projections** 23-24 10.28 1 O & M Expenses one month Maintenance, spares @ 1% of GFA 2 Escalated by 6% 23.44 3 Receivable one month 47.35 4 **Less:** Total Security Deposit 27.23 5 **Net WC requirement** 53.84 Disallowed 6 Interest Rate 13.45% **Interest of Working Capital** 7.24

Table 31: IoWC for APR FY 2023-24

MSPDCL requests the Hon'ble Commission to approve the IoWC of Rs 7.24 Crore for FY 2022-23.

#### 4.7. Gross Fixed Assets and Depreciation

The depreciation on the GFA is calculated as per the JERC (MYT) Regulations 2014.

The assets transferred to MSPDCL at the time of restructuring of erstwhile EDM are not booked as grants but as capital reserve/ equity. As such, the depreciation should be allowed on the entire assets transferred from the erstwhile EDM into the corporate entity of MSPDCL.

For calculating the GFA, the figures of the last year have been used. On the basis of the projected GFA, the additional depreciation has been calculated. The additional depreciation is on the new

assets added to the GFA. The depreciation on the older assets has been calculated as per the accounts.

The depreciation for FY2023-24 is shown as below:

Table 32: Depreciation for APR FY 2023-24

S No.	Particulars	Approved in ARR Order 23-24	Revised Projections
1	Opening GFA	0	2171.00
2	Addition during the Year	0	39.00
3	Closing GFA	0	2210
4	Average GFA	0.00	2190.00
5	Average Rate of Depreciation	0.00%	0.87%
6	Depreciation	2.65	18.99

Table 33: Depreciation for APR FY 2023-24

S No.	Particulars	Approved in ARR Order 23-24	Revised Projections
1	Depreciation	2.65	18.99

#### 4.8. 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.

Table 34: Interest on Loan for APR FY 2023-24

S No.	Particulars	Approved in ARR Order 23-24	Six months actuals	Revised Projections
1	Opening Loan			380.08
2	Addition during the year			163.40
3	Repayment during the year			19.98
4	Closing Loan			523.50
5	Average Loan			212.57
6	Rate of Interest			multiple
7	Interest & Finance Charges			
8	Interest on CSD			
	Total Interest	5.22	0.00	52.14

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

Table 35: Loan details for APR FY 2023-24

S No.	Particulars	RGGVY	SS-II	Loan 3 (REC- RAPDRP- B)	Installation of 130W LED Street Lights & 20m High Mast Lighting	Prepaid Meter Loan Valley (16113)	Prepai d Meter Loan Valley (16114)	SLTTL	LPS
1	Opening Loan	8.40	0.00	20.00	12.91	72.36	47.41	111.48	107.52
2	Addition during the Year	0.00	76.05	0.00	2.74	10.20	20.60	0	53.81
3	Repaymen t during the year	2.64		3.98	0.00	0.00		6.64	6.72
4	Closing Loan	5.76	76.05	16.02	15.65	82.56	68.01	104.84	154.61
5	Average Loan	7.08	38.03	18.01	14.28	77.46	57.71		
6	Rate of Interest	multiple	11.00%	11.70%	10.50%	10.60%	10.60%	9.50%	9.75%
7	Interest & Finance Charges	1.55	4.18275	2.24	1.50	8.21	6.12	10.59	17.75

## 4.9. Return on Equity

As per audited accounts, the RoE is computed on paid up capital of Rs. 10.05 Crore at the rate of 15.50% as stated in clause 26.1 of JERC (Multi Year Tariff) regulations 2014

Table 36: RoE for APR FY 2023-24

S No.	Particulars	Approved in ARR Order 23-24	Revised projections
1	Average Equity	10.05	10.05
2	RoE %	15.50%	15.50%
3	Return on Equity	1.56	1.56
4	MAT Rate applicable	0.00%	0.00%
	Net RoE (Grossed up by MAT rate)	1.56	1.56

MSPDCL requests the Hon'ble Commission to approve the Return on Equity of Rs.1.56 Crore for FY 2023-24

## 4.10. Non-tariff Income

The actual Non-tariff income as compared to the approved figure in ARR of FY 2023-24 is as follows:

Table 37: NTI for APR FY 2023-24

S No.	Particulars	Approved in ARR Order 23-24	Six months actuals	Revised Projections (B)
1	Non-tariff Income	7.14	3.60	10.23

MSPDCL requests the Hon'ble Commission to approve the actual Non-Tariff Income of Rs. 10.23 Crore for FY 2023-24.

## 4.11. Aggregate Revenue Requirement

Based on the above component-wise expenses, the Aggregate Revenue Requirement computed for FY 2023-24 by MSPDCL against the figures approved by the Commission in the Tariff Order for FY 2023-24, is given in the Table below:

Table 38: Aggregate Revenue Requirement for APR of FY2023-24 (Rs. Crore)

S No.	Particulars	Approved in ARR Order 23-24	Revised Projections
Α	Cost of power purchase	569.79	587.67
В	Transmission charges	162.68	167.829
С	O&M Expenses	100.62	123.39
1	Employee Expenses	79.22	101.57
2	A&G Expenses	8.95	7.89
3	R&M Expenses	12.45	13.93
D E	Depreciation Interest on Loan	2.65 5.22	18.99 52.14
F	Interest on Working Capital	0.00	7.24
G	Bad Debt	0.00	16.38
Н	Total Cost	840.96	973.64
I	Add: RoE	1.56	1.56
J	Add: Income Tax	0.00	0.00
K	Total	842.52	975.20
L	Less: Non Tarif Income	7.14	10.23
M	Less: True up surplus of 7 years	46.50	
N	Aggregate Revenue Requirement (ARR)	788.88	964.97
0	Revenue from sale of surplus power	7.93	38.02
Р	Net ARR	780.95	926.95

## 4.12. Revenue Gap

The Projected Revenue Gap of MSPDCL for FY 2023-24 is shown in the Table below:

Table 39: Estimated Revenue Gap for APR of FY2023-24 (Rs. Crore)

S No.	Particulars	Revised projections
1	Net ARR after considering outside sale income	926.95
2	Total Revenue from consumer tariff at existing rates	568.24
3	Revenue Gap before Govt. Subsidy (1-2)	358.70
4	Revised Estimate of State Government Revenue Subsidy required	358.70
5	Revenue Gap / (Surplus) (4-3)	0.00

As can be seen from the above Table, the Revenue Gap in APR of FY 2023-24 will be met by State Government subsidy of Rs 352.11 Crore.

## **Chapter 5: ARR of FY 2024-25**

#### 1.1. Preamble

- 1.1.1. The Hon'ble Commission came up with its Joint Electricity Regulatory Commission for Manipur and Mizoram (Multi Year Tariff) Regulations, 2014 applicable from 1st April 2015.
- 1.1.2. This section outlines the ARR of FY 24-25 of MSPDCL as per the JERC (Manipur and Mizoram) MYT Regulations, 2014 covering the following projections:
  - · Sales, No. of Consumers and Connected load
  - Energy requirement and Energy balance
  - Power purchase cost
- 1.1.3. MSPDCL is submitting its ARR and Tariff Petition for determination of Tariff and ARR for FY 2024-25 broadly on the basis of the principles outlined in MYT Tariff Regulations notified by JERC. MSPDCL has considered the past trends and taken cognizance of other internal and external developments to estimate the likely performance for FY 2024-25.
- 1.1.4. The following sections explain in detail the basis and forecasts of the following elements for FY 2024-25:
  - 1. Category wise Energy Sales & Revenues at the existing tariff
  - 2. T&D Losses and Energy Requirement
  - 3. Determination of Aggregate Revenue Requirement by forecasting the following costs, other income & returns:
    - Power Purchase Cost
    - Employee Cost
    - Repairs & Maintenance Cost
    - Admin & General Cost
    - Capital Investment Plan
    - Interest Cost
    - Depreciation
    - Return on Equity
    - Non-Tariff Income

#### 1.2. Energy Sales

As per section 88.1 of MYT regulations 2014; The Distribution Licensee shall submit a forecast of the expected sales of electricity to each tariff category/sub-category and to each tariff slab within such tariff category/sub-category to the Commission for approval along with the Business Plan, as specified in these Regulations.

Also, as per section 88.3 of MYT regulations 2014; The sales forecast shall be consistent with the load forecast prepared as part of the long-term power procurement plan submitted as a part of Business Plan and shall be based on past data and reasonable assumptions regarding the future.

# 1.2.1. Approach for Sales

It has been observed from past experience that the historical trend method has proved to be a reasonably accurate and well accepted method for estimating the load, number of consumers and energy consumption. In light of the above, MSPDCL has estimated the above for various customer categories primarily based on the CAGR trends during past years. Wherever the trend has seemed unreasonable or unsustainable, the growth factors have been corrected by the company, to arrive at more realistic projections.

# 1.2.2. Summary for growth and projections

The growth rates observed in the energy sold to each consumer category has been analysed for the purpose of sales projections. The analysis of the growth rate helps us understand the behavior of each category and hence forms the basis of forecasting the sales for each category.

# 1.2.3. Category-wise energy sold

The Break-up of the sales and the Compounded Annual Growth Rate (CAGR) for different periods (2 year and year on year) thereof are as follows.

Table 40: Actual category-wise Energy Sales (MU)

S No.	Particulars	2020-21	2021-22	2022-23	2023-24 (6 months actuals and 6 months projections)
A.	LT Supply				
1	Kutir Jyoti	4.46	4.36	0	0
2	Domestic	478.93	523.6	519.37	509.88
3	Commercial LT	70.26	65.94	101.26	101.94
4	Public Lighting	4.55	4.12	16.9	3.88
5	PWW	1.57	1.37	4.04	10.1
6	Irrigation and Agriculture				
(i)	Agriculture	0.00	0.00	3.56	0.00
(ii)	Irrigation (Others)	1.43	1.23	0	0
7	Cottage and Small Industries	24.68	20.77	25.8	14.6
	Total LT	585.88	621.39	670.93	640.40
В.	HT Supply				
8	Commercial HT	23.58	21.31	32.79	35.92
9	PWW	25.43	25.59	78.45	45.42
10	Irrigation and Agriculture				
(i)	Agriculture	0.00	0.00	2.31	0
(ii)	Irrigation (Others)	0.93	0.79	0.4	0.82
11	Medium Industries	5.00	4.18	6.38	9.14
12	Large Industries	9.32	8.69	12.62	18.76
13	Bulk Supply	98.05	96.25	31.91	104.9
	Total HT	162.31	156.81	164.86	214.96
	Grand Total (LT & HT)	748.19	778.19	835.79	855.36

As can be seen, MSPDCL overall energy sales are significantly dependent on the domestic consumers to the extent of around 60%. MSPDCL is of the view that there are various factors contributing to the growth in the energy sales and beyond the control of the utility including factors such as Rural Electrification, Government Policy, economic climate, weather conditions and force majeure events like natural disasters, etc. It is also submitted that the sales in Domestic category have increased due to launch of Saubhagya Scheme. The growth rates, on CAGR basis, for projection have been calculated as below:

Table 41: Category-wise Energy Sales CAGR (%)

S No.	Particulars	2-year	1-year	Growth Rate Assumed
Α.	LT Supply			
1	Kutir Jyoti	-100%	-100%	0%
2	Domestic	4%	-1%	4%
3	Commercial LT	20%	54%	10%
4	Public Lighting	93%	310%	1%
5	PWW	60%	195%	10%
6	Irrigation and Agriculture			
(i)	Agriculture			0%
(ii)	Irrigation (Others)	-100%	-100%	0%
7	Cottage and Small Industries	2%	24%	1%
	Total LT	7%	8%	10%
В.	HT Supply			
8	Commercial HT	18%	54%	10%
9	PWW	76%	207%	10%
10	Irrigation and Agriculture			
(i)	Agriculture			0%
(ii)	Irrigation (Others)	-34%	-49%	0%
11	Medium Industries	13%	53%	1%
12	Large Industries	16%	45%	10%
13	Bulk Supply	-43%	-67%	0%
	Total HT	1%	5%	
	Grand Total (LT & HT)	6%	7%	

The category wise CAGR has been derived from the actual sales volume of FY 2022-23.

Table 42: Category-wise Projected Energy Sales (MU)

S No.	Particulars	2024-25
A.	LT Supply	
1	Kutir Jyoti	0.00
2	Domestic	530.97
3	Commercial LT	112.13
4	Public Lighting	3.92
5	PWW	11.11
6	Irrigation and Agriculture	
(i)	Agriculture	0.00
(ii)	Irrigation (Others)	0.00
7	Cottage and Small Industries	14.75
	Total LT	672.88
В.	HT Supply	
8	Commercial HT	39.51
9	PWW	49.96
10	Irrigation and Agriculture	
(i)	Agriculture	0.00
(ii)	Irrigation (Others)	0.82
11	Medium Industries	9.23
12	Large Industries	20.64
13	Bulk Supply	104.90
	Total HT	225.06
	Grand Total (LT & HT)	897.94

# 1.3. Consumer Profile

Manipur State Power Distribution Company Limited caters to a diverse consumer mix constituting of domestic, commercial, HT Industry, LT Industry and agriculture consumers. The number of consumers in various categories is summarized in table below:

Table 43: Category-wise Projected Number of Consumers

S No.	Particulars	Number of consumers FY 2020- 21 Actuals	Number of consumers FY 2021- 22 Actuals	Number of consumers FY 2022- 23 Actuals	Number of consumers FY 2023- 24 Projected
A.	LT Supply				
1	Kutir Jyoti	15,907	15,907	0	0
2	Domestic				
(i)	First - 100 kWh/Month	410,953	411,237	416,205	418856
(ii)	Next - 100 kWh/Month	35,012	35,434	37,960	38997
(iii)	Above 200 kWh/Month	11,387	12,019	15,270	16835
3	Commercial LT				
(i)	First - 100 kWh/Month	16,534	17,216	17,414	17748
(ii)	Next - 100 kWh/Month	3,801	4,091	5,194	5641
(iii)	Above 200 kWh/Month	3,457	5,486	5,524	6198
4	Public Lighting	471	471	494	505
5	PWW	41	42	42	43

6	Irrigation and				
<i>(</i> :)	Agriculture	0	0	0	0
(i)	Agriculture	0	0	0	0
(ii)	Irrigation (Others)	48	48	48	48
7	Cottage and Small Industries	2,384	2,385	2,385	2402
	Total LT	499,995	504,336	514,942	521,216
В.	HT Supply				
8	Commercial HT	993	1,088	1,109	1172
9	PWW	189	202	208	221
10	Irrigation and Agriculture				
(i)	Agriculture	0	0	0	0
(ii)	Irrigation (Others)	26	21	21	21
11	Medium Industries	88	99	112	125
12	Large Industries	39	44	47	50
13	Bulk Supply	412	412	416	426
	Total HT	1,747	1,866	1,913	2,015
	Grand Total (LT & HT)	501,742	506,202	516,855	523,231

The Break-up of the category-wise number of consumers and the CAGR growth rates for different periods (4 year, 3 year, 2 year and year on year) are as follows:

Table 44: Category wise Number of consumers CAGR (%)

S No.	Particulars	4-year	3-year	2-year	1-year	Growth Rate
A.	LT Supply					
1	Kutir Jyoti	-2%	-3%	-100%	-100%	-100%
2	Domestic					
(i)	First - 100 kWh/Month	0%	0%	0.6%	1%	1%
(ii)	Next - 100 kWh/Month	3%	3%	4.1%	7%	3%
(iii)	Above 200 kWh/Month	9%	10%	15.8%	27%	10%
3	Commercial LT					
(i)	First - 100 kWh/Month	1%	2%	2.6%	1%	2%
(ii)	Next - 100 kWh/Month	9%	10%	16.9%	27%	9%
(iii)	Above 200 kWh/Month	12%	16%	26.4%	1%	12%
4	Public Lighting	3%	2%	2.4%	5%	2%
5	PWW	13%	6%	1.2%	0%	1.2%
6	Irrigation and Agriculture					
(i)	Agriculture	0%	0%	0.0%	0%	0%
(ii)	Irrigation (Others)	5%	1%	0.0%	0%	1%
7	Cottage and Small Industries	1%	0%	0.0%	0%	1%
	Total LT					
В.	HT Supply					
8	Commercial HT	23%	17%	5.7%	2%	5.7%

9	PWW	4%	6%	4.9%	3%	6%
	Irrigation and					
10	Agriculture					
(i)	Agriculture	0%	0%	0.0%	0%	0%
(ii)	Irrigation (Others)	-6%	-8%	-10.1%	0%	0%
11	Medium Industries	26%	12%	12.8%	13%	12%
12	Large Industries	15%	7%	9.8%	7%	7%
13	Bulk Supply	-1%	2%	0.5%	1%	2%
	Total HT					
	Grand Total (LT & HT)					

# 1.4. Connected Load

The growth rate for projecting connected load has been assumed to be 40% of the growth rate assumed for projecting the sales. The table below mentions the growth rate assumed for the projection of connected load for FY 2024-25.

Table 45: Category wise connected load CAGR (%)

S No.	Particulars	Growth Rate
A.	LT Supply	
1	Kutir Jyoti	0.0%
2	Domestic	
(i)	First - 100 kWh/Month	4.0%
(ii)	Next - 100 kWh/Month	4.0%
(iii)	Above 200 kWh/Month	4.0%
3	Commercial LT	
(i)	First - 100 kWh/Month	4.0%
(ii)	Next - 100 kWh/Month	4.0%
(iii)	Above 200 kWh/Month	4.0%
4	Public Lighting	0.4%
5	PWW	0.00%
6	Irrigation and Agriculture	
(i)	Agriculture	0.00%
(ii)	Irrigation (Others)	0.00%
7	Cottage and Small Industries	0.40%
	Total LT	
В.	HT Supply	
8	Commercial HT	4.0%
9	PWW	4.00%
10	Irrigation and Agriculture	
(i)	Agriculture	0.00%
(ii)	Irrigation (Others)	0.00%
11	Medium Industries	0.40%
12	Large Industries	4.00%
13	Bulk Supply	0.40%
	Total HT	
	Grand Total (LT & HT)	

The connected load in various categories is summarized in table below:

Table 46: Category wise Projected Connected load based on CAGR (MW)

		6		6	6	
S No.	Particulars	Connected Load (MW) FY 2020- 21	Connected Load (MW) FY 2021- 22	Connected Load (MW) FY 2022- 23	Connected Load (MW) FY 2023- 24	Connected load (MW) FY 2024- 25
Α.	LT Supply					
1	Kutir Jyoti	6.97	7.37	0	0	0
2	Domestic					
(i)	First - 100 kWh/Month	575.38	586.24	587.64	611.14	635.59
(ii)	Next - 100 kWh/Month	83.06	84.36	84.83	88.22	91.75
(iii)	Above 200 kWh/Month	40.59	41.30	41.45	43.11	44.83
3	Commercial LT					
(i)	First - 100 kWh/Month	43.24	43.41	44.79	46.58	48.45
(ii)	Next - 100 kWh/Month	9.30	9.42	9.64	10.02	10.42
(iii)	Above 200 kWh/Month	35.68	36.44	36.96	38.44	39.98
4	Public Lighting	1.21	1.21	1.22	1.23	1.23
5	PWW	0.44	0.48	0.45	0.45	0.45
6	Irrigation and Agriculture					
(i)	Agriculture	0.00	0.00	0.00	0.00	0.00
(ii)	Irrigation (Others)	0.37	0.37	0.37	0.37	0.37
7	Cottage and Small Industries	19.27	19.27	20.30	20.38	20.46
	Total LT	815.51	829.85	834.61	866.91	893.53
В.	HT Supply					
8	Commercial HT	19.89	21.84	26.20	27.25	28.34
9	PWW	15.50	17.06	17.61	18.31	19.04
10	Irrigation and Agriculture					
(i)	Agriculture	0.00	0.00	0.00	0.00	0.00
(ii)	Irrigation (Others)	1.09	0.74	0.76	0.76	0.76
11	Medium Industries	4.20	4.54	4.61	4.62	4.64
12	Large Industries	12.17	12.07	12.49	12.99	13.51
13	Bulk Supply	50.98	51.53	49.19	49.39	49.58
	Total HT	103.82	107.76	110.86	113.32	115.87
	Grand Total (LT & HT)	919.33	937.61	945.47	980.23	1009.40

#### 1.5. T&D Loss

Being a hilly terrain and characterized by population spread out throughout the State, the system network of the State consists of long length of distribution and LT lines, with aging components which are being upgraded through various schemes. The MSPDCL (erstwhile EDM) has achieved a significant reduction in transmission & distribution losses in the past.

The actual LT distribution losses in Manipur is higher than the distribution losses approved by the Commission. Continuous efforts made towards implementation of prepaid metering, system strengthening and other infrastructure improvement projects has started to show its effect in the form of higher revenue collection and decline in losses.

Table 47: T&D loss trajectory (%)

Particulars	2021-22	2022-23	2023-24	2024-25
	(Actual)	(Actual)	(Estimated)	(Projected)
T&D Loss	24.58%	18.9%	20%	18%

The MSPDCL submits to the Commission to approve the distribution losses submitted herein.

# 1.6. Energy Balance

Based on the projected sales and the T&D loss trajectory as shown above in Table 47, the projections for energy requirement at the State Periphery for FY 2024-25 is shown in the table below:

Table 48: Projected Energy Balance for 2024-25

S No	Particulars	Unit	Details
1	Own Generation	MU	0.00
2	Power purchase from CGS	MU	1098.58
3	Add: UI Over drawl	MU	13.52
4	Add: IEX purchases	MU	65.00
5	Add: Returned Banking Energy	MU	77.00
6	Less: IEX sales	MU	85.00
7	Less: Banking mode sales	MU	67.00
8	Gross Energy handled at NER	MU	1136.09
9	Pool Losses	%	2.36%
10	Energy Losses at NER	MU	26.81
11	Net Energy available at NER after losses	MU	1109.27
12	Less: UI Under drawl	MU	14.23
13	Gross Energy handled at State Periphery	MU	1095.05
14	Total Sales (LT+HT)	MU	897.94
15	Distribution loss	MU	197.11
16	Transmission and Distribution loss	%	18.0%

# 1.7. Power Purchase Quantum and Cost

The energy requirement for the MSPDCL is met by supply of power from Central Generating Stations and a small quantum is purchased through short term market. MSPDCL mainly relies on the allocations of power from Central Generating Stations like NHPC, NEEPCO, OTPC Pallatana Unit I and Unit II.

MSPDCL for the purpose of estimation of the power availability during FY 2024-25 has considered the following sources of power:

- NHPC (Loktak HEP) Central Public Sector Generating Stations, (NE Region);
- NTPC Bongaigaon Unit I-III
- NEEPCO (Hydro) Central Public Sector Eastern Region Generating Stations, (NE Region);
- NEEPCO (Gas) Central Public Sector Eastern Region Generating Stations, (NE Region);
- · OTPC, Pallatana-Unit I and Unit II
- Power purchase from short-term sources (IEX).
- Over-drawl under unscheduled interchange during peak hours at lean period.

The power purchase cost has been calculated by multiplying the average power purchase rate and the projected energy to be procured from the generating stations. Tariff rate has been derived for each of the stations based the allocations and the average cost (Rs/kwh) for FY 2020-21, FY 2021-22 and FY 2022-23.

The allocation of tied up CGS for FY 2024-25 is shown in the table below:

Table 49: Projected MSPDCL Allocation from CGS for FY 2024-25

	Power Purchase			
Sr.	Plant	Installed Capacity (MW)	FY 20	24-25
No.	ridit	, ,	Units (MU)	Cost (Rs Cr)
Α	CGS – NEEPCO			
1	Kopili -I HEP	200.00	7.23	1.75
2	Kopili-II HEP	25.00	6.63	1.69
3	Khandong HEP	50.00	5.44	0.82
4	Ranganadi HEP	405.00	91.43	24.66
5	Doyang HEP	75.00	12.55	8.77
6	Assam GBPP	291.00	146.24	98.72
7	AGTPP	130.00	66.80	41.92
	Sub-Total		336.31	179.63
В	CGS – NHPC			
1	Loktak HEP Purchased Power	105.00	30.52	14.41
2	Loktak HEP- Free Power		20.22	
	Sub-Total		50.74	14.41
С	Others			
1	Baramura GBPP Unit IV and V	42.00	0.00	0.00
2	OTPC Palatana	726.00	328.04	112.99
	Sub-Total		328.04	112.99
D	New Plants			
1	NTPC Bongaigaon Unit I - III	750	349.60	214.05
2	Monarchak Gas Based PP (NEEPCO)			
3	Kameng HEP Stage I			
4	Kameng HEP Stage II			
5	Pare HEP	110	33.89	18.65

6	Tuirial HEP		0.00	0.00
7	Lower Subansiri Stage I	500	0.00	0.00
8	Lower Subansiri Stage II		0.00	0.00
9	Renewable – Solar		0.00	0.00
10	Renewable – Non Solar		0.00	0.00
	Sub -Total		383.49	232.71
E	Short-Term Power Purchase			
	IEX Purchase		65.00	30.13
	Sub -Total		65.00	30.13
F	UI			
	UI Overdrawal		13.52	5.38
	Supplementary bills			22.00
	Sub -Total			
G	REC			
	Solar			
	Non-Solar			
	Grand Total		1177.09	597.24

# Renewable Purchase Obligations (RPO)

JERC has issued RPO targets vide its regulation Joint Electricity Regulatory Commission for Manipur & Mizoram (Renewable Purchase Obligation and its Compliance) (First Amendment) Regulations, 2022. The RPO targets for Third MYT Control Period FY 2023-24 to FY 2027-28 are shown in the table below:

MSPDCL plans to meet the RPO targets through:

• Renewable Energy Certificates from IEX at prevailing rates

The table below shows the RPO to be met by MSPDCL through purchase of REC from IEX.

Table 58: RPO Compliance

				2023-24	2024-25
S No	Particulars	Formula	Unit	Value	Value
1	Energy Sale excl. Inter-State Sale		MU	855.36	897.94
2	Total RPO Target		%	27%	30%
3	Total RE purchase requirement	1*2	MU	231.63	268.57
4	HPO Target		%	1%	1%
5	Hydro power purchase requirement	1*4	MU	5.65	9.70
6	WPO Target		%	2%	2%
7	Wind power purchase requirement	1*6	MU	13.69	22.09
8	Other RPO Target		%	25%	26%
9	Other RE Purchase Requirement	1*8	MU	212.21	236.79
	Energy Storage purchase obligation				
10	target		%	1%	2%
11	Energy Storage purchase requirement	1*10	MU	8.55	13.47
12	Actual hydro power purchase		MU	202.46	207.90
13	Surplus / Deficit in Hydro power purchase	12-5	MU	196.82	198.20

14	HPO achievement	12/1	%	24%	23%
15	Wind power purchase		MU	0.00	0.00
16	Surplus / Deficit in wind power purchase	15-7	MU	-13.69	-22.09
17	WPO achievement	15/1	%	0%	0%
18	Other RE purchase	a+b+c+d+e	MU	0.00	0.00
а	Co-generation		MU	0.00	0.00
b	Small Hydro		MU	0.00	0.00
С	Biomass		MU	0.00	0.00
d	Solar		MU	0.00	0.00
е	Others		MU	0.00	0.00
19	Surplus / Deficit in other RE purchase	18-9	MU	-212.21	-236.79
20	Other RPO achievement	18/1	%	0%	0%
21	Energy Storage Purchase		MU	0.00	0.00
22	Surplus / Deficit in other RE purchase	21-11	MU	-8.55	-13.47
23	Energy Storage Purchase achievement	21/1	%	0%	0%
24	Total RE purchase achievement	12+15+18+21	MU	202.46	207.90
25	Total RPO achievement	24/1	%	24%	23%

# 1.8. Transmission charges

Transmission charges payable to PGCIL are based on the point of connection charges per MW per month as notified by CERC and the scheduled generation and drawl by the applicable entity. MSPDCL has allocations from various Central Generating Stations and other generating stations located outside state which determines the transmission charges payable by MSPDCL.

PGCIL and SLDC for FY 2024-25 have been projected by escalating the existing charges by 5%. The Intra-State transmission charges for MSPCL has been adopted from the MYT order passed by JERC. NERLDC charges have been projected same as that of ARR of FY 2023-2024.

Table 59: Transmission Charges for Third Control Period (Rs. Crore)

Particulars	2022-23	2023-24	2024-25
PGCIL Charges	87.98	92.38	97.00
MSPCL Charges	64.20	73.50	112.06
SLDC charges	0.7	0.74	0.78
NERLDC Charges	1	0.71	0.71
Total	153.9	167.3	210.5

# 1.9. 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.

# 1.9.1. Employee Expenses

The Projection for Tariff filing is done by taking 5.72% year on year growth on employee expenses of the actual cost of FY 2022-23 figure.

The reason for increase in employee expenses in FY 2023 is

- i. 7<sup>th</sup> Pay arrears which has been accumulated for the last 2-3 years and paid in FY 23.
- ii. Creation of provision for gratuity, leave encashment and commutation of regular employees.

Table 60: Employee expenses for FY 2024-25 (Rs. Crore)

Particulars	2020-21	2021-22 2022-23		2023-24 (Estimated)	Escalation Factor	2024-25
<b>Employee Expenses</b>	63.15	59.36	96.07	101.57	5.72%	107.37

# 1.9.2. 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. As per regulations the R&M are projected by taking an escalation of 5.72% over the estimated figure of FY 2023-24. MSPDCL submits to the Commission that it is important for MSPDCL to incur the R&M expenses as mentioned above in order to maintain and strengthen the system and quality of supply.

Table 61: R&M expenses for FY 2024-25 (Rs. Crore)

Particulars	2020- 21	2021- 22	2022-23	2023-24 (Estimated)	Escalation Factor	2024-25
R&M Expenses	16.4	25.4	13.18	13.93	5.72%	14.73

MSPDCL requests the Commission to approve the R&M expense without any disallowances as the same is necessary for proper maintenance and strengthening of the system and quality of supply in the region in order to ensure consumer satisfaction.

# 1.9.3. 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.

As per regulations the R&M are projected by taking an escalation of 5.72% over the estimated figure of FY 2023-24.

Table 62: A&G expenses for FY 2024-25 (Rs. Crore)

Particulars	2020- 21	2021- 22	2022-23	2023-24 (Estimated)	Escalation Factor	2024-25
A&G Expenses	6.28	4.52	7.46	7.89	5.72%	8.34

The total O&M expenses are shown in the Table below:

Table 63: O&M expenses for FY 2024-25 (Rs. Crore)

Particulars	2020-21	2021-22	2022-23	2023-24 (Estimated)	2024-25
O&M Expenses	85.83	89.28	116.71	123.39	130.4

# 1.10. Capital Expenditure Plan

Considering the increase in demand from HT & LT consumers, MSPDCL would be required to undertake significant capital expenditure for system augmentation and strengthening. System augmentation would not only help MSPDCL in handling increased load but would also ensure better quality of supply and network reliability to the consumers. Since, the current T&D loss levels are high, the capital expenditure would help in reduction in the T&D loss level.

Table 64: Capital Expenditure (Rs. Crore)

S No	Сарех	2024-25
1	SS-II	26.07

# 1.11. Gross Fixed Assets and Depreciation

The depreciation on the GFA is calculated as per the JERC (MYT) Regulations 2014.

The assets transferred to MSPDCL at the time of restructuring of erstwhile EDM are not booked as grants but as capital reserve/ equity. As such, the depreciation should be allowed on the entire assets transferred from the erstwhile EDM into the corporate entity of MSPDCL.

For calculating the GFA, the figures of the last year have been used. On the basis of the projected GFA, the additional depreciation has been calculated. The additional depreciation is on the new assets added to the GFA. The depreciation on the older assets has been calculated as per the accounts.

Table 65: GFA for FY 2024-25 (Rs. Crore)

Asset Categories	Opening balance as on 1.04.2024	Addition	Closing balance as on 31.03.2025	Additional Depreciation for FY 2024- 25	Depreciation for FY 25	Actual Depreciation Rate
Plant & Machinery	2,129.93	149.78	2,279.71	0.79	16.70	0.73%
Building	75.00	5.27	80.27	0.02	2.68	0.74%
Furniture & fittings	0.42	0.03	0.45	0.00	0.03	28.31%
Computer	2.97	0.21	3.18	0.00	0.48	25.47%
Heavy Equipments	0.05	0.00	0.05	0.00	0.00	0.00%
Heavy Vehicle	0.49	0.03	0.52	0.00	0.05	9.64%
Office Equipments	0.09	0.01	0.10	0.00	0.01	45.44%
Vehicle	1.33	0.09	1.42	0.00	0.14	0.00%
Land	0.35	0.02	0.37	-	-	0.00%
Software	0.31	0.02	0.33	0.00	0.02	0.00%
TOTAL	2210.94	155.48	2,366.42	0.81	20.10	

# 1.12. Interest and Finance charges

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 71: Loan Details for FY 2024-25 (Rs. Crore)

S No.	Particulars	RAPDRP -B (REC)	RGGVY	SS-II	Installatio n of 130W LED Street Lights & 20m High Mast Lighting	Prepai d Meter Loan Valley (16113	Prepai d Meter Loan Hill (16114	SLTTL	LPS
1	Opening Loan	15.95	5.80	76.06	15.67	82.60	68.14	104.84	154.61
2	Addition during the year	0.00	0.00	30.02	0.00	0.00	18.86		
3	Repayment during the year	3.99	2.64	0.00	0.78	3.44	2.27	6.64	6.72
4	Closing Loan	11.96	3.15	106.08	14.88	79.16	84.73	98.2	147.89
5	Average Loan	13.96	4.48	91.07	15.27	80.88	76.43	101.52	151.25
6	Rate of Interest	0.12	MULTIPLE	0.11	0.11	0.11	0.11	9.50%	9.75%
7	Interest & Finance Charges	2.12	1.24	10.02	1.60	8.57	8.10	9.95	15.07

# 1.13. Interest on Working Capital

As per Regulation 29.4 of JERC Terms and Conditions of Tariff Regulations 2014, Distribution Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

- (a) Operation and maintenance expenses for one month; plus
- (b) Maintenance spares at one (1) per cent of the historical cost escalated at 6% from the date of commercial operation; plus
- (c) Receivables equivalent to one (1) month of the expected revenue from sale of electricity at the prevailing tariffs: minus
- (d) Amount held as security deposits under clause (a) and clause (b) of sub-section (1) of Section 47 of the Act from consumers except the security deposits held in the form of Bank Guarantees;

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

The computation of normative Interest on Working Capital (IoWC) as per Regulation 29.4 of JERC Terms and Conditions of Tariff Regulations 2014 for MSPDCL for FY 2024-25, is shown in the Table below:

Table 73: IoWC for FY 2024-25 (Rs. Crore)

S No	Particulars	Unit	FY 2022- 23	FY 2023- 24	FY 2024- 25
1	O&M Expenses for 1 month	Rs. Cr.	9.73	10.28	10.87
2	Maintenance spares at 1% of GFA escalated by 6%  Receivables equivalent to 1 month of sale of	Rs. Cr.	26.23	23.44	25.08
	electricity at the prevailing tariffs	Rs. Cr.	38.72	47.35	49.77
4	less: Consumer Security Deposit		27.23	27.23	27.23
5	Net Working Capital	Rs. Cr.	47.45	53.84	58.49
6	SBAR Interest Rate	%	12.90%	13.45%	13.45%
7	Interest on Working capital	Rs. Cr.	6.12	7.24	7.87

# 1.14. Return on Equity

As per audited accounts, the RoE is computed on paid up capital of Rs. 10.05 Crore at the rate of 15.50% as stated in clause 26.1 of JERC (Multi Year Tariff) regulations 2014

Table 74: Return on Equity

S	Particulars	Unit	FY 2022-	FY 2023-	FY 2024-
No	i ai ticulai s	Onic	23	24	25
1	Average Equity	Rs Cr.	10.05	10.05	10.05
2	RoE %	%	15.50%	15.50%	15.50%
3	Return on Equity	Rs Cr.	1.56	1.56	1.56
4	MAT Rate applicable	%	0%	0%	0%
5	Net RoE (Grossed up by MAT rate)	Rs Cr.	1.56	1.56	1.56

# 1.15. Non-tariff Income

MSPDCL submits here that the details of Non-tariff income for FY 2022-23 based on the audited statement. The Non-tariff income for FY 2023-24 and FY 2024-25 is projected using escalation factor of 6% on the FY 2022-23 figure and so on.

Table 75: Non-tariff income (Rs Crore)

Particulars	2020-21	2021-22	2022-23	2023-24 (Estimated)	Escalation Factor	2024-25
Non-tariff Income	11.42	5.74	9.65	10.23	6.00%	10.84

# 1.16. Aggregate Revenue Requirement

Based on the above component-wise expenses, the Aggregate Revenue Requirement computed for FY 2024-25 by MSPDCL is given in the Table below

Table 76: Aggregate Revenue Requirement (Rs. Crore)

S No.	Particulars	2022-23	2023-24	2024-25
Α	Cost of power purchase	589.72	587.67	597.24
В	Transmission charges	153.88	167.829	210.54
С	O&M Expenses	116.71	123.39	130.44
1	Employee Expenses	96.07	101.57	107.37
2	A&G Expenses	7.46	7.89	8.34
3	R&M Expenses	13.18	13.93	14.73
D	Depreciation	19.14	18.99	20.92
E	Interest on Loan	33.06	52.14	56.70
F	Interest on Working Capital	6.12	7.24	7.87
G	Bad Debt	15.60	16.38	17.20
Н	Total Cost	934.23	973.64	1040.91
	Add: RoE	1.56	1.56	1.56
J	Add: Income Tax	0	0	0
	Add: Truing up Gap of Past Years	0	0	61.47*
K	Total	935.79	975.20	1103.94

L	Less: Non Tarif Income	9.65	10.23	10.84
М	Aggregate Revenue Requirement (ARR)	926.14	964.97	1093.09
N	Revenue from sale of surplus power	33.09	38.02	40.38
0	Revenue at Existing Tariff	469.26	568.24	597.21
Р	Revenue Gap / Surplus	-423.79	-358.70	-455.51
Add	Additional Revenue from Tariff Hike	0	0	89.32
	Subsidy Requirement	423.79	358.70	366.19
*Partial claim of True up gap of FY 22-23 and balance shall be claimed in FY 25-26				

# Chapter 6: Tariff determination for FY 2024-25

ARR for FY 2024-25 for MSPDCL is proposed as follows:

Table 77: Combined ARR of MSPDCL proposed for FY 2024-25 (Rs. Crore)

S No.	Particulars	2024-25
А	Cost of power purchase	597.24
В	Transmission charges	210.54
С	O&M Expenses	130.44
1	Employee Expenses	107.37
2	A&G Expenses	8.34
3	R&M Expenses	14.73
D	Depreciation	20.92
Е	Interest on Loan	56.70
F	Interest on Working Capital	7.87
G	Bad Debt	17.20
Н	Total Cost	1040.91
I	Add: RoE	1.56
J	Add: Income Tax	0
	Add: Truing up Gap of Past Years	61.47
K	Total	1103.94
L	Less: Non Tarif Income	10.84
M	Aggregate Revenue Requirement (ARR)	1093.09

<sup>\*</sup>Because the true up gap for FY 23 is coming high, we have proposed to recover this in two parts – 61.47 cr in the ARR of FY 24-25 and balance in the ARR for FY 25-26

From above table it can be seen that, the total ARR of MSPDCL proposed for FY 2024-25 is of Rs. 1093.09 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.

Table 78: Revenue Gap for FY 2024-25 at existing tariff (Rs Crore)

Sr. No	Particulars	Amount in Rs.
		Cr
1	Annual Revenue Requirement	1093.09
2	Revenue from sale of power at existing tariff	597.21
3	Revenue from sale of surplus power	40.38
4	Total Revenue (2+3)	637.59
5	Revenue Gap	455.51

Thus MSPDCL has estimated that it will face a Revenue Gap of Rs. 455.51 Cr in FY 2024-25 for the proposed ARR with recovery as per existing tariff.

The projected Average Cost of Supply and Average realization from sale of power for FY 2024-25 is as shown in the Table Below:

Table 79: Projected ACOS and Avg. Realization FY 2024-25 at existing tariff (Rs. Crore)

SI No.	Particulars	Units	MSPDCL Projected
1	Aggregate Revenue Requirement (ARR)	Rs Cr.	1093.09
2	Revenue from sale of surplus power	Rs Cr.	40.38
3	Net ARR within state (1-2)	Rs Cr.	1052.72
4	Govt. Subsidy Requirement	Rs Cr.	365.19
5	Net ARR after Govt. Subsidy (3-4)	Rs Cr.	687.53
а	Revenue at Existing Tariff	Rs Cr.	597.21
b	Additional Revenue from Tariff Hike	Rs Cr.	89.32
6	Energy Sale with State	MU	897.94
7	Average Cost of Supply (3/6)	Rs/KWH	11.72
8	Average Revenue Realisation (5/6)	Rs/KWH	7.65
9	Average Subsidy per unit (7-8)	Rs/KWH	4.08
10	Average Revenue Realization at existing tariff (5a/6)	Rs/KWH	6.65
11	Average Subsidy Requirement at existing tariff (7-10)	Rs/KWH	5.07

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

Table 80: Average Tariff Increase Required (FY 2024-25)

			Without	With
SI.	Particulars Particulars Particulars	Units	subsidy	subsidy
1	Net ARR	Rs. Crore	1093.09	1093.09
2	Revenue from Existing Tariff	Rs. Crore	597.21	597.21
3	Sale of Surplus Power	Rs. Crore	40.38	40.38
4	Total Sales Proceeds	Rs. Crore	637.59	637.59
5	Revenue Gap	Rs. Crore	455.51	455.51
6	State Government Revenue Subsidy	Rs. Crore		366.19
7	Net Un-met GAP	Rs. Crore	455.51	89.32
8	Revenue from sale of power at proposed tariff (4+7-3)	Rs. Crore	1083.10	686.53
9	Unit revenue realisation at the proposed Tariff	Rs. / kWh	12.06	7.65
10	Average Tariff hike required = (SI no 7 / SI no 2) x100	%	81.3%	15%

While CERC approves the tariff hike of Central Generating Stations and Transmission Companies on a regular basis, there has been no proportionate increase in the MSPDCL's Retail Supply Tariff (RST).

This situation widens the gap between the revenue collection and the power purchase cost. Without corresponding 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 **15% increase** has been proposed so as to meet the increasing revenue gap.

# Tariff Proposal for FY 2024-25

- The total revenue gap for the FY 2024-25 to be covered is Rs. **455.51** Crores. The above ARR gap can be sought to be filled by:
  - a. Tariff Increase
  - b. Budgetary support from the Govt. of Manipur
- In case the entire gap was to be met from Tariff Increase, the average increase in tariff would work out to nearly 100%. It is presumed that this is an unacceptable level of tariff hike, and the realistic tariff in the region needs to form the basis for the proposed maximum increase in tariff, with the balance gap being addressed by one of the other means.
- The MSPDCL has been receiving budgetary support from the Government of Manipur. The same support is expected to be provided during the ensuing year. Accordingly, out of the gap of Rs. 454.51 Crore, Rs. 365.19 Crore is proposed to be covered by budgetary support from Government of Manipur. Therefore, the balance revenue gap of Rs. 89.32 crore will have to be met from tariff increase and other recovery mechanism.
- 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 National Tariff Policy also states that the tariffs should be within ± 20 % of the average cost of supply. However, in the present scenario it shall neither be feasible nor in the larger interest of the population of the State of Manipur to burden those with tariff anyway near to average cost of supply. Considering these limitations, the Tariff proposal has been formulated by MSPDCL with an endeavor to progressively approach to reduce the burden (budgetary support) on the Government of Manipur, without giving any tariff shock to the consumers. Furthermore, attempt has been made to evenly distribute the impact of increase in tariff required to fill the revenue gap left after the subsidy committed by the Government of Manipur within the given constraint of consumer mix in the State.
- MSPDCL has considerably increased quality and duration of power supply throughout the state. This has resulted in increased quantum of power purchase to be done by MSPDCL which has in turn increased average cost of supply. As such MSPDCL proposes to increase Tariff of all the consumers by 15.00% in average for FY 2024-25 to partially meet the increased cost of supply.

Table 81: Proposed Tariff Structure for FY 2024-25 at Full Cost Tariff without Subsidy

S No.		Proposed Full Cost Tariff for FY 2024-25			
	Category and Consumption slab	Fixed Charges (Rs/kW/KVA/PM)	Energy Charges (Rs/kWh or kVAh)		
LT SUPPI	Y				
1	Kutir Jyoti	Rs/Connection	Rs/kWh		
	All units (upto 45 KWh/3 months)	50	4.15		
2	Domestic	Rs/kW	Rs/kWh		
(i)	First - 100 kWh/Month	110	8.55		
(ii)	Next - 100 kWh/Month	110	9.55		
(iii)	Above 200 kWh/Month	110	10.95		
3	Non-Domestic / Commercial	Rs/kW	Rs/kWh		
(i)	First - 100 kWh/Month	120	9.06		
(ii)	Next - 100 kWh/Month	120	10		
(iii)	Above 200 kWh/Month	120	10.5		
4	Public Lighting	120	10.6		
5	Public Water Works	140	10.8		
6	Irrigation and Agriculture	Rs/kW	Rs/kWh		
(i)	Agriculture	90	8.23		
(ii)	Irrigation (Others)	90	8.23		
7	Small Industry	100	9.52		
HT SUPP	LY				
		Rs./kVA	Rs./kVAh		
1	Commercial	150	10.25		
2	Public Water Works	150	10.75		
3	Irrigation and Agriculture				
(i)	Agriculture	150	8.24		
(ii)	Irrigation (Others)	150	8.24		
4	Medium Industry	150	9.65		
5	Large Industry	150	10.85		
6	Bulk Supply	150	11.05		

Table 82: Existing & Proposed Tariff Structure with Subsidy

S No.		Existing Tariff for F		Proposed Tariff		%
	Category and			for FY 202		increase
	Consumption slab	Fixed Charges	Energy	Fixed Charges	Energy	
		(Rs/kW/KVA/PM)	Charges	(Rs/kW/KVA/P	Charges	
			(Rs/kWh	M)	(Rs/kWh	
			or kVAh)		or kVAh)	
LT SUPP			- 41.00		- 4114	
1	Kutir Jyoti	Rs/Connection	Rs/kWh	Rs/Connection	Rs/kWh	
	All units (upto 45	25	2.10	25	2.10	0%
	KWh/3 months)	D-/I-M	Da /late/la	D-/I-M	Da /latela	
2	Domestic 51 to 100 both (14 to 11	Rs/kW	Rs/kWh	Rs/kW	Rs/kWh	4.40/
(i)	First - 100 kWh/Month	65	5.10	80	5.80	14%
(ii)	Next - 100 kWh/Month	65	5.95	80	6.85	15%
(iii)	Above 200 kWh/Month	65	6.75	80	8.10	20%
3	Non-Domestic /	Rs/kW	Rs/kWh	Rs/kW	Rs/kWh	
/··\	Commercial	0.5	6.55	100	7.50	450/
(i)	First - 100 kWh/Month	85	6.55	100	7.50	15%
(ii)	Next - 100 kWh/Month	85	7.25	100	8.50	17%
(iii)	Above 200 kWh/Month	85	7.65	100	9.00	18%
4	Public Lighting	70	9.60	100	10.60	10%
5	Public Water Works	105	9.80	120	10.80	10%
6	Irrigation and	Rs/kW	Rs/kWh	Rs/kW	Rs/kWh	
(1)	Agriculture		4			4=0/
(i)	Agriculture	65	4.55	65	5.25	15%
(ii)	Irrigation (Others)	65	4.55	65	5.25	15%
7	Small Industry	70	5.60	80	6.45	15%
HT SUPP	PLY	T		T	T	
		Rs./kVA	Rs./kVAh	Rs./kVA	Rs./kVAh	
1	Commercial	105	8.90	120	10.25	15%
2	Public Water Works	105	9.60	120	10.75	12%
3	Irrigation and					
	Agriculture			4.5.5		
(i)	Agriculture	105	5.15	120	5.95	16%
(ii)	Irrigation (Others)	105	5.15	120	5.95	16%
4	Medium Industry	105	8.00	150	9.25	16%
5	Large Industry	105	9.10	150	10.60	16%
6	Bulk Supply	105	9.25	150	10.80	17%

# Chapter 7: Proposed Tariff schedule for FY 2024-25

- 1. General Conditions of Supply (For all categories of Consumers):
- **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 to those consumers provided with prepaid energy meters.
- 1.2 Rebate/Surcharge for availing supply at voltage higher/lower than base voltage: For those who avail supply at higher voltage than the classified supply voltage for corresponding load as per clause-3.2 of Electricity Supply Code Regulations, 2013 of JERC (Manipur and Mizoram) rebate shall be allowed and of those availing power at lower voltage than the specified voltage (as per the above Regulation) surcharge shall have to be levied as detailed below:
  - (i) For consumers having Contracted load upto 50kW If the supply is given at HV/EHV, a rebate of 5% shall be admissible on both the rates of energy charge and fixed charge of the applicable tariff.
  - (ii) For consumers having contracted load above 50kW If supply is given at a voltage lower than the base voltage for corresponding load as per clause mentioned above, the consumer shall be required to pay an extra charge of 10% additionally on the bill amount (Energy charge + Fixed charge) calculated at the applicable tariff.
  - (iii) All voltages mentioned above are nominal rated voltages as per clause 3.2 of the Electricity Supply Code Regulations, 2013 issued by JERC (Manipur & Mizoram).
- 1.3 Payment: All payments can be made by way of Cash (upto an amount acceptable to the Licensee from time to time), Banker's Cheque, Demand Draft or Money Order or e-transfer by Online. 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.
- 1.4 Validity of existing Recharge Voucher: in the case of any consumer with a prepaid meter having purchased pre-paid voucher prior to the effective date of new Tariff, the existing voucher shall be continued invariably till such voucher amount is fully exhausted. Thus, the Licensee shall cautiously issue voucher such that the issued voucher validity is for a minimum number of days beyond the effective date of new tariff.

- 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).
- 2% per month at simple interest on the outstanding principal amount for the period of delay in successive period or part thereof will be levied/charged, until those number of days outstanding amount is not fully repaid.
- **1.7 Single Point Delivery**: This tariff is based on the supply being given through a single point of delivery and metering is also at one voltage. Supply at other points at other voltage/voltages shall be separately metered and billed for and shall be considered as separate connection.
- **1.8 Voltage and frequency**: All voltages and frequency shall be as per clause 3.1 and 3.2 of Electricity Supply Code Regulations, 2013 issued by the JERC for Manipur & Mizoram with all applicable amendments made from time to time.

# 1.9 Power Factor Incentive / Surcharge: -

a) If the average monthly power factor of the consumer (except Domestic & Kutir Jyoti) increases above 95%, he shall be paid an incentive at the following rate:

Criteria condition	Eligible Incentive
For each one percent increase by	Incentive at One percent (1%) of the
which his average monthly power	total amount of the bill under the
factor is above 95%, up to unity	head 'energy charge'.
power factor	

a) If the average monthly power factor of the consumer 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	Surcharge levied at One percent
average monthly power factor falls	(1%) of the total amount of the bill
below 90% up to 85%	under the head 'energy charge'.

c) If average monthly power factor of the consumer 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	Surcharge levied at Two percent
average monthly power factor falls	(2%) of the total amount of the bill
below 85%	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 suitable steps are taken to improve the power factor to the satisfaction of the Utility. This is, however, without prejudice to the levy of surcharge for low-power factor in the event of supply not being disconnected.
- e) For this purpose, the "average monthly power factor" is defined as the ratio of total 'Kilo Watt hours' to the total 'Kilo Volt Ampere hours' recorded during the month. This ratio will be rounded off to two figures after decimal. Figure 5 or above, in the third place after decimal 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 consumer is found to be less than 90% at any time during the first 6 (six) months from the date of release of connection and if he maintains the average monthly power factor in subsequent three (3) 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 after the said observation period of three (3) months.
- 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. 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:

$$730 \times 1.0 \times C$$
**Average transformer loss** = 
$$----- = kVAh per month$$

$$100$$

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 adopted.

- (2) The transformer loss arrived at by the above formula shall be added to the energy consumption, even when the recorded energy consumption is found **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.
- 1.11 Rounding-off 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 purpose of fixed/demand charge in the monthly billing. The Licensee should update Contracted load/Billing demand as per the provisions of clause-4.108 of JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 (with up to date amendment).

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).

Sample calculation for Domestic Purpose (1) 1.24KW (2) 0.36 kW, Fixed charge for Domestic is Rs 60.00 per kW of contracted load is assumed.

Sample 1: - Fixed charge =  $1.24 \times 60 = \text{Rs } 74.40 = \text{Rs } 74.00$ .

Sample 2: - Fixed charge = 0.36 kW (=0.50 kW after rounding) x 60 = Rs 30.00.

Note: Fraction of rupees is rounded-off as per clause 1.11 of this tariff schedule and load below 0.5 kW is rounded-up to 0.5 kW as per clause 1.10 of this tariff schedule.

- 1.12 Rounding-off Rupees: Each component 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 paisa and above to be round off to the next higher rupee and fraction less than 50 paisa 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 over tendered amount shall be carried forward into next month bill as credit and shall not earn interest for whatsoever reason.
- **1.13 Mixed Load:** Any part of the connection given for one specific category purpose, should not be utilized for any different purpose, involving higher rate of charge in the tariff. A separate connection shall have to be taken invariably for such loads/purposes under appropriate

category afresh, failing which the entire consumption (i.e., existing category consumption and additional consumption for different purpose) shall be billed in that corresponding category *having higher rate of applicable tariff* for which any part of that connection is utilised for the entire period of lapse.

# 1.14 System of supply:

# 1.14.1- LT Supply:

- i) Alternating current, 50 Hz, single phase (1Ø) 230 Volts up to 8kW
- ii) Alternating current, three phase (3Ø), 400 Volts for loads above 8 kW **up to** 50 kW. wherever 3-phase (3Ø) connection is required for load less than or equal to 8 kW,
- iii) Alternating current, three phase (3Ø), 400 Volts for loads above 8 kW **up to** 50 kW. Wherever 3-phase (3Ø) 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.

# 1.14.2- 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.

- **1.14.3 The maximum demand:** The Mixed 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.
- **1.14.4 Billing demand:** As defined in Clause 2.3(12) of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments.

The clause reads as follows:

"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."
- 1.14.5 Government Subsidy: Section-65 of E.Act 2003 is hereby reproduced "Provision of subsidy by State Government:- If the State Government requires to grant of any amount of subsidy to any consumer or class of consumers in the tariff determined by the State Commission under section 62, the State Government shall, notwithstanding

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

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

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

There could be a situation, where the outstanding monthly subsidy due was released by the government after passage of much time elapse and thereby consumers were to be billed at full cost tariffs (Tariff-B) in those relevant month or months when subsidy due was not released as stipulated by the Commission. Given the situation, the entire excess amount so charged to all those consumers on account of full cost tariff adoption shall have to be refunded in the form of deduction by treating such excess amount so collected by Licensee as an advance payment in one instalment in the immediate monthly billing cycle where bills issued to respective consumers soon after receipt of such pending Tariff subsidy relating to the past month/months. If in case, the excess amount so refundable is exceeding the monthly billing amount to be so adjusted in case of any consumer/consumers, then such excess amount unrefunded may be carried forward and be adjusted in the following monthly bill/bills to be issued to such consumer/consumers until full settlement is done with.

#### 1.14.6 Applicable Taxes or Duties:

The tariff notified above does not include any taxes (including GST) or duties etc., on electrical energy that may be payable at any time in accordance with changes in any

Law or Central Government/State Government Rules in force. Such charges, if any, shall be payable in addition to tariff charges by the consumer/user.

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

# 2. Subsidised Tariff for FY 2023-24 to LT & HT Category Supply:

# **Low Tension supply (LT):**

# 2.1 LT Category -1: - Kutir-Jyoti/ BPL Connection

**Applicability:** Applicable to all households who have been given connection under Kutir Jyoti 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 (3) months exceeds 45 kWh, thereon 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:

# **Metered Supply:**

A 11 . 1 . 1 .	O D = 2.40   144b
All Unit	@ Rs 2.10 per kWh

- Note: 1- if the total consumption of any consecutive three 93) months is more than 45 kWh, thereon consumer shall be re-categorised/converted under normal domestic category permanently from the very 1<sup>st</sup>/2<sup>nd</sup>/3rd month of that consecutive three months, depending upon from such month instance when the total units consumed exceeds the specified limit of 45 kWh is noticed and there upon monthly bill will be served under domestic category instead of KJS. (clause 4.90 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments may be referred to for adoption).
- Note 2: In case a Kutir Jyoti /BPL consumer gets converted to a domestic consumer, thereon such recategorized/converted consumer shall be required to deposit load security/meter security as applicable to domestic consumer and

failure/disobey to pay amounts to contravene the provisions of clause-5.9 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with applicable latest amendments and liable for suitable penal action.

# 2.2 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 in the dwelling house. 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 used. This will not be applicable to institutions conducting commercial activities of any nature.

#### **Tariff Rates:**

A) Fixed Charge: - Rs.80.00 per month per kW of Contracted Load

#### B) Energy charge per month: -

# **Metered Supply:**

i)	First 100 kWh	@ Rs.5.80 per kWh
ii)	Next 100 kWh	@ Rs 6.85 per kWh
iii)	Above 200 kWh	@ Rs 8.10 per kWh

Note: If any portion of the domestic connection if utilized for any different usage other than for dwelling purpose such as Non-domestic, Commercial, Industrial usage, etc., a separate connection shall be taken forthwith for such other load purposes under appropriate category, failing which the entire consumption made in that billing month shall be treated, as the case may be, in the corresponding category having higher applicable tariff amongst the utilised purposes.

#### 2.3 LT Category-3: Non-Domestic / Commercial:

**Applicability:** This tariff is applicable to all kinds of lights, all types of fans, heating devices, Television, VCR/VCP, Radio, Refrigerator, Air Conditioner, lift motors, Pumps 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, houses, public buildings, community optical 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 centres', 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-storeyed 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 100.00 per month per kW of Contracted Load.

B) Energy charge per month: -

**Metered Supply:** 

a)	First 100 kWh	Rs. 7.50 per kWh
b)	Next 100 kWh	Rs. 8.50 per kWh
c)	above 200 kWh	Rs. 9.00 per kWh

# 2.4 LT Category-4: - Public Lighting

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

# **Tariff Rates:**

- A) Fixed Charge: Rs 100.00 per month per kW of Contracted Load.
- B) Energy charge per month: -

**Metered Supply:** 

For all units consumed	@ Rs. 10.60 per kWh
i di ali utilis collsullieu	@ NS. 10.00 Pel KWII

# 2.5 LT Category-5: - Public Water Works (PWW)

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

**Tariff Rates:** 

- A) Fixed Charge: Rs 120.00 per month per kW of Contracted Load.
- B) Energy charge per month: -

**Metered Supply:** 

For all units consumed	Rs 10.80 per kWh
------------------------	------------------

# 2.6 LT Category-6: - Irrigation and Agricultural

# 6a. Agriculture Category (LT):

**Applicability:** This tariff is applicable to water pumping for Agricultural purpose by Individual farmers only.

#### **Tariff Rates:**

- A) Fixed Charge: Rs 65.00 per month per kW of Contracted Load.
- B) Energy charge per month: -

# **Metered Supply:**

#### 6b. Irrigation Category (LT):

**Applicability:** This tariff is applicable to farmers pumping for Irrigation/Agricultural purpose by those farmers other than individual farmer.

#### **Tariff Rates:**

- A) Fixed Charge: Rs 65.00 per month per kW of Contracted Load.
- B) Energy charge per month: -

#### **Metered Supply:**

For all units consumed	Rs 5.25 per kWh

#### 2.7 LT Category-7: - Small/Micro Industry

**Applicability:** Applicable to all Industrial power consumers with demand of power up to 50 kW those are **not covered by Category No.3 (Supply to Non-Domestic/Commercial Purposes)**, such as all types of workshops using electricity for works such as steel fabrication works, motor body builders, Tyre re-treading works, power handloom industry, weaving houses, carpentry works. Saw mills, flour/rice mills, Oil mills, re-rolling mills, coffee/ginger/turmeric processing units, winery plants, Ice candy units, fodder cutting units, poultry farming/hatchery units, silk rearing/processing units, pisciculture, prawn

culture, floriculture in green houses, mushroom production units, sugarcane crushing units, milk/meat processing units, bamboo processing units, paper/steel/aluminum recycling units, manufacturing/processing/preserving of goods such as cold storage plants/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, construction of power generating stations/substations and power supply to any generating stations etc. This will include domestic or commercial purpose usage within the industrial complex.

#### **Tariff Rates:**

- A) Fixed Charge: Rs 80.00 per month per kW of Contracted Load.
- B) Energy charge per month: -

# **Metered Supply:**

For all units consumed @ Rs 6.45 per kWh

# 3. Subsidized Tariff to HT Category Supply in FY 2023-24

The tariffs are applicable for those consumer availing supply at voltage above 400V irrespective of connected load/contracted demand. It is mandatory to supply with voltage above 400V to consumer having a contracted Load of above **50 kW** or Contract Demand of above **55.56 kVA**, as per clause 3.2 of JERC for M&M (Electricity Supply Code) Regulations, 2013 with up to date amendments made.

# 3.1 H.T. Category – 1: Commercial

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

# **Tariff Rates:**

- A) Demand Charge: Rs. 120.00 per month per kVA of Billing Demand.
- B) Energy charge per month:

#### **Metered Supply:**

For all units consumed	@ Rs.10.25 per kVAh
------------------------	---------------------

# 3.2 H.T. 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 120.00 per month per kVA of Billing Demand.
- B) Energy charge per month: -

# **Metered Supply:**

For all units consumed	@ Rs 5.95 per kVAh
------------------------	--------------------

# 3.3 H.T. Category - 3: Irrigation & Agriculture

# **3a.** HT – Agriculture Category:

**Applicability:** This Tariff is applicable to water pumping for agricultural purposes by Individual farmer only.

# **Tariff Rates:**

- A) Demand Charge: Rs 120.00 per month per kVA of Billing Demand.
- B) Energy charge per month:

# **Metered Supply:**

For All units consumed	@ Rs 5.95 per kVAh
------------------------	--------------------

#### **3b.** HT – Irrigation Category:

**Applicability:** This tariff is applicable to farmers pumping water for Irrigation/Agricultural purpose by those other than individual farmers.

# **Tariff Rates:**

- A) Demand Charge: Rs.120.00 per month per kVA of Billing Demand.
- B) Energy charge per month: -

# **Metered Supply:**

For all units consumed	@ Rs 5.95 per kVAh
------------------------	--------------------

# 3.4 H.T. Category - 4: Medium Industry

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

#### **Tariff Rates:**

- A) Demand Charge: Rs 150.00 per month per kVA of Billing Demand.
- B) Energy charge per month: -

# **Metered Supply:**

For all units consumed	@ Rs 9.25 per kVAh

#### 3.5 H.T. Category- 5: Large Industry

**Applicability:** This Tariff is applicable for supply of power to industrial consumers having license 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 150.00 per month per kVA of Billing Demand.
- B) Energy charge per month: -

# **Metered Supply:**

#### 3.6 H.T. Category - 6: Bulk Supply within the State

**Applicability**: This tariff is applicable for all installations, including mixed loads similar to LT category 2 & 3 such as private sector installation, educational institution, defense installation, government & public sector offices & complexes and Hospital etc., that will arrange their own distribution system of power within the premises with the approval of competent authority. This will not include industrial complexes consisting mixed load of LT category 2 & 3.

#### **Tariff Rates:**

- A) Demand Charge: Rs 150.00 per month per kVA of Billing Demand.
- B) Energy charge per month: -

#### **Metered Supply:**

#### 4. Temporary Power Supply

Applicability: Temporary power supply shall be given through correct meter and carried out as per procedure laid down in clause 4.56 to 4.70 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013 along 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 desired to delegated to power to various level of officers, it may be done through an executive order within the licensee/MSPDCL. 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 be returned to the consumer after the period is over. The Bill shall be served at 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 rated slab of the applicable tariff category for which energy is supplied.
- 5. Computation of energy consumed for un-metered supply:
  - **5.1:** Street light connection & unmetered consumers:

As per Section-55 of Electricity Act 2003 and as per clause 5.1 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments, no installation should be serviced without fixing appropriate and correct meter. Therefore, after elapse of many more years from the E. Act 2003 effective date and after elapse of several years from the effective date of the said supply code, the formula for computation of energy consumed for unmetered supply is withdrawn. Henceforth, MSPDCL should invariably install energy meters for all category of consumers.

- **5.2: Short period of unmetered supply:** For un-meter (meter not available) supply as a result of defective, burnt, lost meter shall be treated as per 6.11 6.13 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with up to date amendments.
- 5.3: For Un-authorised consumer/Theft (includes by-pass of meter)/Pilferage and cases cover by section 135 of the Act: The energy consumed shall be computed as per Annexure 11.1.19 Of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with applicable up to date amendments. The energy so computed shall be evaluated as follows: -

# (a) Load less than 10 kW

(1) **First instance:** - Thee (3) times of the rate of the applicable tariff (fixed and variable charges) for which the stolen energy was assessed as consumed/utilised.

(2) **Second and subsequent instance:** - Six (6) times of the rate of the applicable tariff (fixed and variable charges) for the entire quantum stolen energy was assessed as consumed/utilised.

# (b) Load exceeding 10 kW

- (1) First instance: Three (3)) times the rate of the applicable tariff (fixed and variable charges) for which the stolen energy was assessed as consumed/utilized.
- (2) Second and subsequent instance: Six (6) times the rate of the applicable tariff (fixed and variable charges) for which the stolen energy was assessed as consumed/utilized.

**Note:** - Additional punishment of theft shall be as per Electricity Act 2003 (with latest amendment) and as per the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with applicable latest amendments.

# 6. Miscellaneous Charges

#### 6.1 Meter Rent

# 6.1.1 Meter Rent for non-prepaid meters: Monthly charges for hiring of the meter, indicator payable shall be as follows:

a)	AC, Single phase Energy meter, whole current	Rs. 10.00 per month
b)	AC, Three phase Energy meter, whole current	Rs. 20.00 per month
c)	AC, three phase Energy meter, CT operated	Rs. 50.00 per month
d)	AC, three phase Energy meter, CT & PT operated	Rs. 500/- per month

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

a)	AC, Single phase PP, Energy meter, whole current	Rs. 20.00 per month
b)	AC, Three phase PP, Energy meter, whole current	Rs. 40.00 per month

**6.1.3 Meter Rent for Smart Meters:** Monthly charges for hiring of the meter, indicator payable shall be as follows:

a	a)	AC, Single phase PP, Energy meter, whole current	Rs. 40.00 per month
t	b)	AC, Three phase PP, Energy meter, whole current	Rs. 60.00 per month

# 6.2. Pole/Tower usage charge per month

# 6.2.1 For supporting of internet/media/telephone cables:

This charge shall be borne by Operator/Distributor of visual media network.

- a) Rs.10.00 per pole per cable per month in case of internet cable/ media cables/visual media cables.
- b) Rs.20.00 per pole per month per cable in case of landline telephone cable. (a cable having up to 5 pair of lines shall be taken as one cable for this purpose) Telephone cable having more than 5 pairs shall be considered as 2, 3 etc, by dividing actual number of pairs by 5 to arrive at equivalent number of cables. Any fraction shall be rounded to nest higher integer.

# 6.3 Other charges for meter:

# i) Meter shifting charge:

- (1) Rs 100.00 per shifting if resulted from reconstruction / modification of building and at consumer's request. Required material if needed will be borne by Consumer himself.
- (2) Free of cost if shifting is done in the interest to licensee. Required material is 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 latest up to date amendments.
- ii) 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 amendments. 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.

#### iii) Execution charge for re-installation/installation of meter: -

- a) For existing consumer shall be at free of cost.
- b) For disconnected consumer being re-connected (if meter is removed) shall be charged @ Rs 75.00.

c) For new consumer, it shall be included in the cost of service connection under the nomenclature of **Execution Charges.** 

#### iv) 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. *Prima facie energy meters installed for usage shall be of those approved or tested & approved by the Licensee*).

However, when the cause leading to subsequent replacement is either on account of manufacturing defect or fault of licensee then, it shall be at free of cost.

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

SI.No	Type of Meter for testing	Charges payable
i)	For AC, Single phase LT energy	Rs.50.00 per meter per
	meter	testing.
ii)	For AC, Three phase LT energy	Rs.75.00 per meter per
	meter whole current	testing.
iii)	For AC, Three phase LT energy	Rs.100.00 per meter per
	meter, CT operated	testing.
iv)	For Energy meter, AC Three Phase,	Rs.150.00 per meter per
	CT & PT operated	testing.
v)	For any other type of meter, HT	Rs.200.00 per meter per
	supply	testing.

In case the meter supplied by the Licensee fitted to 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 amendments.

# **6.5** 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 amendments. 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 with in stipulated time, the Licensee will be at liberty to disconnect the consumer's premise from the supplier's main.

# 6.6 Disconnection and Reconnection

(1) Disconnection: -Disconnection of an installation in all cases will be free of charges.

(2) R	Reconnection: -	Reconnection	charge	shall be	as follows: -
-------	-----------------	--------------	--------	----------	---------------

SI.No	Description	Reconnection charge
(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 if required will be chargeable additionally.

# 6.7 Charges for change of category:

Change of category will be carried out as per clause 4.72 to 4.80, clause 4.85 to 4.86 and 4.90 to 4.93 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity supply Code) Regulations, 2013 along with up to date amendments.

# 6.8 Charges for Replacement of Connection Wire, Cut-out, Fuse, Meters etc.:

Cost of replacement after initial fixation of connection wire, cut-out, fuses, meters etc. will be borne by the consumers and shall be payable by the consumer in advance as per purchase rate of the Licensee. If the Licensee supplies 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-:

SI.No	Description		n	Execution charge
(a)	Single phase connection		nection	Rs. 400.00 per connection.
(b)	Three phase connection		nection	Rs. 600.00 per connection.
(c)	HT	three	phase	<b>Rs. 900.00</b> per 100 meters of the HT
	conne	ction		line.

# (2) For Cut-Out & Fuse: -

1) per Cut-Out	- Rs 15.00
1) per Cut-Out - 2) per Fuse -	Rs 5.00

# (3) For Replacement of meters (if cost of meter arranged by consumers)

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 producing the proof of payment receipt from concerned office.

Note: If Licensee is providing with the meter for replacement, then the extra cost as specified by the Licensee will have to be paid including any applicable taxes.

**6.9 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 beRs.100.00 per rerating per connection. Inspection for re-rating should be carried out only on advance payment in the concerned office and on physical production of such payment receipt.

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 amendments made.

#### **6.10** Security Deposit:

# (a) Load Security:

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

#### (b) Meter Security (if Licensee's meter is used):

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

# **6.11** Charges for Replacement of tamper-proof Meter Box:

For AC single phase LT or three phases 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/-

# **6.12** Charges for Testing of Transformer Oil:

(a) For first sample of oil: Rs.150.00 per sample.

(b) For the next additional sample of oil of the equipment received at the same time of the first sample: Rs.100.00 per sample.

#### **6.13 Service Lines & Service Connection:**

- (i) Type of Service Connection: Type of service connection and distance for service connection line length will be as per clause 4.2 read with clause 5.10 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013.
- (ii) Cost of Service Connection: As stipulated in clause 4.37 and 4.131 of the Joint Electricity Regulatory Commission for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013. If the consumer desires to arrange service connection materials, the Department (not below rank of Junior Engineer concerned) will check all the materials.
- **6.14 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 along with up to date amendments made.
- 6.15 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 along with up to date amendments made.

# 6.16 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 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.

# Chapter 8: Prayers

# **MSPDCL** requests Hon'ble Commission to:

- a. Admit the Petition for Final True-up for FY 2022-23
- b. Approve the amounts claimed in the true up of FY 2022-23;
- c. Admit the petition and approve the APR for FY 2023-24
- d. Approve the amounts claimed in the ARR for FY 2024-25;
- e. Approve the category-wise tariffs proposed by MSPDCL for FY 2024-25;
- f. 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;
- g. Permit submission of any additional information required by the Commission during the processing of this Petition;
- h. 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:

# Chapter 9: Annexures

Audited Annual Accounts of FY 2022-23