TARIFF ORDER

REVIEW FOR FY 2020-21

AND

DETERMINATION OF AGGREGATE REVENUE REQUIREMENT

&

RETAIL TARIFF FOR FY 2021-22

FOR

MANIPUR STATE POWER DISTRIBUTION COMPANY LIMITED

Petition (ARR & Tariff) No. 3 of 2021

JOINT ELECTRICITY REGULATORY COMMISSION

FOR MANIPUR AND MIZORAM

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ABBREVIATIONS

Abbreviation	Description
A&G	Administrative and General
AAD	Advance Against Depreciation
ARR	Aggregate Revenue Requirement
CAG	Controller and Auditor General of India
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CWIP	Capital Work in Progress
DG	Diesel Generation
DPS	Delayed Payment Surcharge
EA, 2003	Electricity Act, 2003
EDM	Electricity Department, Manipur
EHT	Extra High Tension
FSA	Fuel Surcharge Adjustment
FY	Financial Year
GFA	Gross Fixed Assets
GOI	Government of India
HT	High Tension
IEGC	Indian Electricity Grid Code
ISGS	Inter State Generating Station
IR	Inter-Regional
JERC	Joint Electricity Regulatory Commission for Manipur and Mizoram
kV	Kilovolt
kVA	Kilovolt-ampere
kW	kilowatt
kWh	kilowatt-hour
LT	Low Tension
MAT	Minimum Alternate Tax
MDI	Maximum Demand Indicators
MSPCL	Manipur State Power Company Limited
MSPDCL	Manipur State Power Distribution Company Limited
MUs	Million Units
MYT	Multi Year Tariff
NLDC	National Load Despatch Centre
NTI	Non-Tariff Income
O&M	Operation and Maintenance
PGCIL	Power Grid Corporation of India Ltd
PLF	Plant Load Factor
PLR	Prime Lending Rate
POSOCO	Power System Operation Corporation Ltd.
PPA	Power Purchase Agreement
PWW	Public Water Works
RE	Revised Estimate
REC	Renewable Energy Certificate
R&M	Repair and Maintenance

RoE	Return on Equity
RPO	Renewable purchase Obligation
RTS	Roof Top solar
RGGVY	Rajiv Gandhi Gramin Vidyutikaran Yojana
SBAR	State Bank Advance Rate
SLDC	State Load Despatch Centre
T&D	Transmission and Distribution
UI	Unscheduled Interchange

JOINT ELECTRICITY REGULATORY COMMISSION
FOR MANIPUR AND MIZORAM

TBL Bhawan, 2nd to 5th Floor
Peter street, E-18, Khatla,
Aizawl, Mizoram – 796001

Petition (ARR & Tariff) No. 3 of 2021

In the matter of

Provisional Trueing up for FY 2019-20, Annual Performance Review for FY 2020-21 and determination of Aggregate Revenue Requirement (ARR) and Retail Tariff for FY 2021-22 for sale of electricity by the Manipur State Power Distribution Company Limited (MSPDCL) in the State of Manipur

AND

Manipur State Power Distribution Company Limited ------------------------------------ Petitioner

Present

Mr. Lalchharliana Pachuau
Chairperson

ORDER

1. The Manipur State Power Distribution Company Limited (hereinafter referred to as MSPDCL) is a deemed licensee in terms of section 14 of the Electricity Act 2003 (hereinafter referred to as Act), engaged in the business of distribution of electricity in the state of Manipur.

2. JERC (M&M) (MYT) Regulations, 2014 specify that the distribution licensee shall file ARR and Tariff Petition in all aspects along with requisite fee as specified in Commission's fees, fines and charges regulations, on or before 30th November of the preceding year. MSPDCL has filed petition for determination of ARR and retail tariffs for FY 2021-22 along with Annual Performance Review for FY2020-21 and provisional true up petition for FY 2019-20 on **Dt. 2nd February 2021** vide its letter No. MSPDCL/JERC/TARIFF

PETITION & ARR:2021-22/01/3743-45, Dated: 2.02.2021.

3. **ARR & Tariff Petition**

As per the directive of the Commission, the MSPDCL has filed the Petition for True-up for FY 2019-20 and APR for FY 2020-21 and determination of Aggregate Revenue Requirement (ARR) and Retail Tariff for FY 2021-22. In the petition MSPDCL has estimated ARR of Rs.871.64 Crores for FY 2021-22 and Revenue from existing tariff is at Rs. 421.68 Crore, the revenue from Outside State sale is at Rs.25.08Crs and assuming a tariff related subsidy support of Rs.316.34 Crore is expected from the Govt. of Manipur for FY 2021-22 and accordingly indicated an unmet revenue gap of **Rs.108.54 Crore**, which the MSPDCL now proposes to recover it through revision of tariff to an extent of 25.74% hike over prevailing rates.

4. **Admission of the petition**

The Commission observed that the ARR petition filed by the Petitioner was incomplete and lacking critical and vital information required as specified in JERC for M&M Multi Year Tariff Regulations, 2014. Therefore, MSPDCL was asked to submit the required information vide Commission letters **No.H.20013/34/20-JERC, dated 24.02.2021.** Pending receipt of additional information, the tariff Petition **was admitted on 24.02.2021** and marked as **petition (ARR and Tariff) No. 3 of 2021** to avoid time delay in processing of ARR submissions. The Additional information sought from MSPDCL vide Commission's letter No.H.20013/34/20-JERC, dated 18.02.2021. A reminder letters sent vide Commission's letter Nos. H.20013/34/20-JERC dated 09.03.2021 and 25.03.2021.

The MSPDCL has submitted some data/information/clarifications etc. vide its letters *No.MSPDCL/JERC/TARIFF PETITION & ARR:2021-22/01/Part-1/8966-68, dt 24.03.2021.*

5. **Provisional True up of ARR for FY 2019-20**

As per Regulation 10(2) of JERC (M&M) (MYT) Regulations, 2014 the licensee shall file an application for True up of the previous year along with Audited Annual Accounts. MSPDCL has submitted provisional true up petition along with ARR petition for FY 2021-22 without submission of audited annual accounts for FY 2019-20. The MSPDCL for FY 2019-20 has furnished the net ARR of Rs.672.55 Crore and shown an unmet gap of Rs. 148.32Crore after a category wise revenue receipt of Rs.305.23Crs and the government tariff subsidy amount of Rs.219.00 Crore. The elaborate details of revenue realised from the Outside State sales amounting to Rs.22.43Crs were not furnished for scrutiny and this amount was adjusted in power purchase cost of FY2019-20 in their ARR true-up filings. The true-up for FY 2019-20 could not be taken up in the absence of full-fledged details supported by audited balance sheet and other relevant background details and there is no provision to honour the provisional true-up initially and it is also for another good reason that Commission shall not revisit any true-up once finalised.

6. **Annual Performance Review for FY 2020-21**

The JERC M&M (MYT) Regulations 2014 had issued an amendment Dt 27th March 2019 which mandates the licensee to submit the annual performance review to the Commission for the current year ARR with reference to Revised Estimates. Accordingly, review for FY 2020-21 is carried out by MSPDCL which resulted in revised net APR (Annual Performance Review) of Rs.720.18 Crs with an estimated uncovered revenue gap of Rs.92.13Crs after considering category wise revenue realisable amount of Rs.412.06crs and the Govt subsidy amount of Rs.216crs.

7. **Public Hearing Process**

Regulation 17 of the MYT Regulations, 2014 provides giving adequate opportunity to all stake holders and general public for making suggestions/objections on the Tariff Petition as mandated under section 64 of the Electricity Act 2003. Accordingly, the Commission directed MSPDCL vide letter No.H.20013/34/20-JERC, dated 24.02.2021 to publish the ARR and Tariff Petition for the FY 2021-22 in an abridged form as public notice in newspapers having wide circulation in the state inviting suggestions /objections on the Tariff Petition.

Accordingly, MSPDCL has published the summary of Tariff Petition in an abridged form as public notice in the following newspapers and the Tariff petition was also placed on the website of MSPDCL. The last date of submission of suggestions/objections was fixed on **22nd March 2021.**

Sl. No.	Name of newspaper	Language	Date of publication
1.	The Sangai Express	English	7th and 8th March, 2021
2.	Poknapham	Manipuri	7th and 8th March, 2021
3.	Imphal Free Press	English	7th and 8th March, 2021

The Commission received one objection/ suggestion from All Manipur Power Consumers' Association (AMPCA) on the petition filed by the MSPDCL. The Commission passed on the objection received to MSPDCL for communicating their response on the objections raised vide Commission letter No H 20013/34/20-JERC dated 17th March 2021.

The Commission, to ensure transparency in the process of Tariff determination and for providing proper opportunity to all stake holders and general public for making suggestions/objections on the Tariff petition and for convenience of the consumers and general public across the state, decided to hold a public hearing at the headquarters of the state.

8. **Notice for Public Hearing**

Accordingly, the Commission published a notice in the following leading newspapers giving due intimation to the general public, interested parties, objectors and the consumers about the public hearing to be held at **Imphal on 16.04.2021**.

Sl. No	Name of the news paper	Language	Date of Publication
1	Poknapham	Manipuri	2nd & 3rd April, 2021
2	The Imphal Free Press	English	2nd & 3rd April 2021

9. **Public Hearing**

The Public hearing was held as scheduled on 16.04.2021 at Hotel Classic Grande, Dynasty Hall, Imphal from 10:30 AM to 12:30 PM. During the public hearing, each objector was provided a time slot for presenting before the Commission his/her views on the petition of the MSPDCL. The main issues raised by the objectors during the public hearing and corresponding response of the MSDPCL are briefly narrated in **Chapter - 4**.

10. The proposal of MSPDCL was also placed before the **State Advisory Committee** in its meeting held on 15.04.2021 at Hotel Classic Grande, Dynasty Hall, Imphal from 11.00 AM and various aspects of the Petition were discussed by the Committee.

11. The Commission took into consideration the facts presented by the MSPDCL in its Petition and subsequent filings, the suggestions/objections received from stakeholders,

consumer organizations, general public and recommendations of State Advisory Committee and response of the MSPDCL to those suggestions/objections for approval of the ARR and tariff petition for FY 2021-22.

12. The Commission has reviewed the directives issued earlier in the Tariff orders for FY 2010-11 to FY 2020-21 and noted that some of the directives are compiled and some are partially attended with. The Commission has dropped the directives those were fully complied and the remaining directives are consolidated again and fresh directives are issued for further necessary action by MSPDCL.

13. In exercise of the powers vested under section-62 read with section-64 of the Electricity Act 2003 and Regulation 16 JERC for M&M (Multi Year Tariff) Regulations, 2014 (hereinafter referred to as Tariff Regulations) and other enabling provisions in this behalf the Commission issues this order approving of the ARR and tariffs for supply of electricity in the state of Manipur.

14. This order is in Eleven chapters as detailed below;

- Chapter 1: Introduction.
- Chapter 2: Summary of ARR and Tariff Petition for FY 2021-22
- Chapter 3: Power Sector in Manipur - An Overview.
- Chapter 4: Public Hearing process.
- Chapter 5: Provisional True up for FY 2019-20
- Chapter 6: Annual Performance Review for FY 2020-21.
- Chapter 7: Analysis of ARR for FY 2021-22 and Commission’s decisions.
- Chapter 8: Tariff Principles and Design.
- Chapter 9: Wheeling charges for FY 2021-22.
- Chapter 10: Directives.
- Chapter 11: Fuel and Power Purchase Cost Adjustment.

15. The MSPDCL should ensure implementation of the order from the effective date after issuance of a public notice, in such a font size which is clearly visible in two local daily newspapers having wide circulation in the state within a week and compliance of the same shall be submitted to the Commission by the MSPDCL.

16. This order shall be effective from **1st May, 2021** and shall remain in force till the issue of next Tariff Order of the Commission.

LALCHHARLIANA PACHUAU
CHAIRPERSON

Place : Aizawl

Date : **26/04/2021**

1. Introduction

1.1 JERC for Manipur and Mizoram (JERC, M&M)

In exercise of the powers conferred by the Electricity Act 2003, (hereinafter referred to as Act) the Government of India constituted Electricity Regulatory Commission for the States of Manipur and Mizoram to be known as “Joint Electricity Regulatory Commission for Manipur and Mizoram” vide GOI. Gazette (Extra Ordinary) Notification No. 23/3/2002 R&R dated 18/01/2005, (hereinafter referred to as Commission) as per the authorization given by the Government of Manipur and the Government of Mizoram vide Memorandum of Agreement dated 23/07/2004. The Commission constituted is a two-member body designated to function as an autonomous authority responsible for regulation of the power sector in States of Manipur and Mizoram. The powers and functions of the Commission are as prescribed in the Act. The head office of the Commission is presently located at Aizawl, the capital town of Mizoram. The Commission became functional w.e.f January 24th, 2008.

a) In accordance with the Act, the Commission discharges the following functions:

i. Determine the tariff for generation, transmission, distribution and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State: Provided that where open access has been permitted to a category of consumers under Section 42 of the Act, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;

ii. Regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;

iii. Facilitate intra-State transmission and wheeling of electricity

iv. Issue licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;

v. Promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;

vi. Adjudicate upon the disputes between the licensees and generating companies; and to refer any dispute for arbitration;

vii. Levy fee for the purposes of this Act;

viii. Specify State Grid Code consistent with the Central Grid Code specified under Clause (h) of sub-section (1) of Section 79 of the Act;

ix. Specify or enforce standards with respect to quality, continuity and reliability of service by licensees;

x. Fix the trading margin in the intra-State trading of electricity, if considered, necessary;

xi. Discharge such other functions as may be assigned to it under the Act.

b) Further, the Commission also advises the State Government on all or any of the following matters namely:

i. Promotion of competition, efficiency and economy in activities of the electricity industry;

ii. Promotion of investment in electricity industry;

iii. Reorganization and restructuring of electricity industry in the State;

iv. Matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by the State Government.

c) The State Commission ensures transparency while exercising its powers and in discharging its functions.

d) In discharge of its functions, the State Commission is guided by the national Tariff Policy (NTP) was brought out by GOI in compliance to Section 3 of the Act. The objectives of the NTP are to:

- Ensure availability of electricity to consumers at reasonable and competitive rates;

- Ensure financial viability of the power sector and attract investments;
- Promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimize perceptions of regulatory risks;
- Promote competition, efficiency in operations and improvement in quality of supply.

1.2 Manipur State Power Distribution Company Ltd (MSPDCL)

In pursuance Electricity Act 2003, herein after referred to as Act, the erstwhile. State Electricity Department was unbundled into 2 (two) state owned functionally independent successor entities is, (i) Manipur State Power Company Ltd (herein after referred has MSPCL) a deemed transmission licensee and (ii) Manipur State Power Distribution Company Ltd (herein after referred has MSPDCL) a deemed distribution Licensee w.e.f 1st of Feb 2014, by a Gazette notification of the Government of Manipur vide Manipur State Electricity Reforms Transfer Scheme 2013 (or Transfer scheme 2013) dated 31st December 2013. MSPDCL is a 100% subsidiary of MSPCL and undertakes power distribution within the state of Manipur. **MSPDCL holds the entire network in the state for all voltage levels of 11kV and below**. All the existing generation assets of about 45MW which are primarily function as back up generation facilities are transferred to MSPDCL. These generation assets are included as other business for MSPDCL. MSPDCL also carries out the trading activity.

The objectives of the MSPDCL are:

- Focuses on demand and distribution network growth.
- Lays emphasis on metering to help reduce distribution losses (100% metering)
- Focuses on metering to raise correct demand.
- Focuses on collection of revenue to reduce commercial losses and improve cash flow.
- Concentrated efforts into computerization of billing for efficient billing and in turn better and faster recovery.
- Focuses on power theft and correct metering and energy audit to improve efficiency.

2. Summary of ARR and Tariff Petition for FY 2021-22

2.1 Aggregate Revenue Requirement (ARR)

The MSPDCL in its petition filing has submitted the Petitions relating to Limited Provisional True up of FY 2019-20, Annual Performance Review for FY 2020-21 and the determination of ARR and Tariff for FY 2021-22.

Table 2. 1: Aggregate Revenue Requirement for FY 2021-22

(Rs. Cr)

Sl. No	Particulars	MYT Order 12/03/18 Approved	As per ARR filing
1	Fuel Cost		
2	Power Purchase Cost	522.64	491.63
3	Inter-State Transmission Charges	67.39	83.06
4	Intra-State Transmission Charges	106.67	101.93
5	SLDC & NRLDC Charges	0.83	1.52
6	Employee Cost	119.24	116.43
7	R&M Expenses	8.59	19.44
8	Administration and General Expenses	10.57	10.10
9	Depreciation	0.45	4.80
10	Interest and Finance Charges	3.13	36.27
11	Interest on Working Capital	8.13	8.31
12	Write off of bad debts	3.00	3.00
13	Return on Equity	1.95	1.95
14	Add: Income Tax	0	0
15	Less: Non-Tariff Income	0.45	6.80
16	**Net ARR**	**852.14**	**871.64**

Prayer

MSPDCL requests the Hon'ble Commission to:

a. Admit the Petition for Limited Provisional True-up for FY 2019-20, Annual Performance Review for FY 2020-21 and ARR &Tariff Determination for FY 2021-22;

b. Approve the amounts claimed in the ARR for FY 2021-22;

c. Approve the category-wise tariffs proposed by MSPDCL for FY 2021-22;

d. Approve the Miscellaneous charges as proposed by MSPDCL with a request to modify the execution charges for replacement of cable and wire of HT three phase *connection from Rs.900.00 per 100 meters of the HT line to Rs.900.00 per HT connection*;

e. Condone any inadvertent omissions/ errors/ shortcomings and permit the Petitioner to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date;

f. Permit submission of any additional information required by the Commission during the processing of this Petition;

g. Pass such other and further orders as are deemed fit and proper in the facts and circumstances of the case.

####

3. Power Sector in Manipur- An Overview

3.1 Geographical Reality

Manipur, like other States of the North-Eastern Region, has been gifted with a fairly high hydro power potential. However, the major portion still remains untapped due to financial and environmental bottlenecks. Currently, the State is having one furnace oil based generating station at **Leimakhong (6x6 MW) in standby mode, and a few diesel generating stations.** Therefore, the State is dependent upon outside sources for meeting majority of its energy requirement. It is currently getting power from NHPC, NEEPCO, ONGC Tripura Power Corporation (OTPC) Unit I and Unit II, and Baramura Gas Turbine Power Project (BGTPP). The scheduled allocated firm share from the Central Sector generating stations to MSPDCL for current financial year from NEEPCO, NHPC, OTPC-I and II, BGTPP of Tripura State Electricity Corporation Limited (TSECL) and NTPC Bongaigaon is currently around 391.14MW However, currently MSPDCL’s share is around 254.38 MW from installed and operative central generating stations’ projects.

For the purpose of evacuating power from different sources in the North-Eastern Region, the inter-state transmission network owned and maintained by PGCIL as well as the intra-state transmission network owned by the Manipur State Power Corporation Limited (MSPCL) is utilised. The existing intra-state transformation capacity of 132 kV Substations in Manipur is 417 MVA and the length of the 132 kV lines is 472.7 km of single circuit lines and 87.9 km of double circuit lines. Currently, MSPDCL has 192 Feeders of 11 kV and above (rural and urban) and 7904 numbers of DTs (rural and urban). Also, MSPDCL’s MVA capacity of LT network and HT network are 599.06 MVA and 164.85 MVA, respectively.

3.2 Power Supply

a) Own Generation

The MSPDCL has own generation plants of Micro hydel, diesel with installed capacity of 45.11 MW. But there is no own generation contribution shown from these stations from FY 2018-19 onwards to FY 2021-22.

b) Power Purchase from Station sources Outside the State

The MSPDCL is mostly dependent on Central Generating Stations (CGS) located in different parts of the North Eastern Region for meeting its energy requirement. The total firm share from own generation and the Central Sector Generating Stations like NTPC, NEEPCO, NHPC, OTPC, Tripura and others is 254.38 MW as shown in the Table below. The actual peak and off-peak availabilities are however always less because of low plant load factors.

Table 3.1: Energy Allocation in Megawatts from all Outside State sources

Sl. No	Station	Installed Capacity MVA	FY 2019-20 (ARR filed)	
			MSPDCL Share (%)	MSPDCL Share (MW)
A	**NEEPCO(Hydro)**			
1	Kopili I HEP	200	7.39%	14.78
2	Kopili II HEP	25	6.95%	1.74
3	Khandong HEP	50	6.56%	3.28
4	Ranganadi HEP	405	8.37%	33.90
5	Doyang HEP	75	7.87%	5.90
	Sub total	**755**		**59.60**
B	**NEEPCO (Gas Based)**			
1	Assam Gas based Power Project	291	8.11%	23.60
2	Agartala Gas Turbine Power Project	130	8.23%	10.70
	Sub total	**421**		**34.30**
C	**NHPC (Loktak HEP)**			
1	Purchased	105	42.50%	44.625
	Sub total	**105**		**44.63**
D	**NTPC – New Plants**			
1	Bongaigoan Unit-I	250	7.50%	18.750
2	Bongaigoan Unit-II	250	7.51%	18.775
3	Bongaigoan Unit-III	250	7.51%	18.775
	Sub total	**750**		**56.30**
E	**TRIPURA**			
1	Baramura (Gas Based) (Unit IV)	21	25%	5.25
2	Baramura(Gas Based) (Unit V)	21	25%	5.25
	Sub total	**42**		**10.56**
F	**OTPC**			
1	(Pallatana-Unit I)	363.3	5.79%	21.03
2	Pallatana-Unit II)	363.3	5.79%	21.00
	Sub Total	**726**		**42.00**
G	**Others**			
1	**Pare HEP**	**300**	2.33%	**6.99**
	Grand Total	**3099.6**		**254.38**

MSPDCL has been allocated power from various Central Generating Stations in North Eastern Region, viz., NEEPCO, NHPC, Tripura-Baramura and OTPC-Palatana, and NTPC Bongaigaon for power purchase under long term PPAs. The actual power purchase quantum and energy availability as compared to quantum approved for FY 2019-20 in the Tariff Order for FY 2019-20, are as detailed in the Table below:

Table3. 2: Energy Purchase for FY 2019-20 (MU)

(Units in MU)

Sl. No.	Source of Power	(MYT Approved 12.03.18)	2019-20 Actuals
A	**CGS - NEEPCO**		
1	Kopili -I HEP	65.41	52.72
2	Kopili-II HEP	7.24	7.08
3	Khandong HEP	13.42	12.00
4	Ranganadi HEP	115.12	107.25
5	Doyang HEP	18.13	13.57
6	Assam GBPP	113.75	90.21
7	AGTPP	64.55	57.59
B	**CGS – NHPC**		-
1	Loktak HEP Purchased Power	194.10	106.85
2	Loktak HEP- Free Power	76.37	41.97
C	**NTPC - New Plants**		-
1	NTPC Bongaigaon Unit I to III	146.55	158.49
D	**Others**		
1	Baramura GBPP Unit IV and V	77.31	57.39
2	OTPC Palatana	221.42	199.77
3	Para HEP	0	38.93
4	Monarchak Gas Based PP (NEEPCO)	NA	-
5	Kameng HEP Stage I	NA	-
6	Kameng HEP Stage II	NA	-
7	Tuirial HEP	NA	-
8	Lower Subansiri Stage I	NA	-
9	Lower Subansiri Stage II	NA	-
10	Renewable – Solar	0	-
11	Renewable – Non-Solar	0	-
	Sub -Total	1131.37	943.83
	Total Power Purchases (MU)	1131.37	943.83

As can be seen from the above Table, the actual power purchase quantum from CGS in FY 2019-20 was 943.83 MU, which is lower than the approved quantum of 1131.37 MU. The reason for this deviation is due to non-availability of power from CGS stations or deviation in load requirement due to seasonal variation. The requirement in the state is higher in winter months when hydro availability is lower and MSPDCL has to purchase from outside to meet the state demand. To manage this, purchase through banking mechanism has been planned. Actually, MSPDCL banked available power in summer months to use it in winter months when availability is low. Also, actual deviation is managed by MSPDCL by way of purchase/sell of power from IEX as per requirement or by availing the banking facility with other traders (for detailed monthly trend of IEX and banking sale / purchase please refer Format F1a). The detailed energy purchase is given below:

Table 3.3: Energy Purchase from other sources and deviation for FY 2019-20 (MU)

Sl. No.	Source of Power	MYT Order 12/03/18	2019-20 Actuals
1	**Total Purchase from CGS**	**1131.37**	**943.83**
2	NER Pool losses	2.85%	1.94%*
3	NER Pool losses	32.24	18.28
4	**Net Power Purchase**	**1099.13**	**925.55**
5	IEX Purchase		18.50
6	Return of Banked Energy + (i/c prev.year)		214.04
7	Banking to outside utilities		-157.33
8	Energy Sold to IEX		-95.97
9	**Net Available Energy**		**904.80**
10	UI Underdrawl		-4.36
11	UI Overdrawl		9.56
12	**Net Power Available at State Periphery**	**1099.13**	**909.998**

*derived based on CGS monthly schedule figure

From above it can be seen that the net power purchase from the CGP for FY 2019-20 is 925.55 MU. The purchase from IEX is 18.50 MU and sales are 95.97 MU. After considering the IEX, UI and banking the net electricity available at the state periphery is 909.998 MU.

MSPDCL requests the Hon'ble Commission to approve the actual power purchase quantum from CGPs and other sources for Limited provisional truing up for FY 2019-20.

Manipur, being a hilly state with its population unevenly dispersed and spread over remote corners. The details of Distribution network, owned & operated by MSPDCL as on 31.03.2020, are given in Table below.

Table3. 4: Distribution Network as on 31.3.2020

Sl. No.	Voltage	Units	Numbers
1	11kV lines	Ckt KMs	7482
2	LT lines	CKT KMS	18678
3	Distribution transformers	MVA	7904
4	Metered Consumers	**LT**	499859
5	-do-	**HT**	1401

Commission Analysis:

The above distribution network data pertains to this year filings (FY 2020-21) which they have provided in the **format-P4 (Details of Physical Statistics of the network)** in spite of insisting to submit the same through additional data.

3.3 Distribution Loss

The Distribution loss of MSPDCL system is 22.052% during the year 2019-20. The technical and commercial losses are not provided with segregation.

3.4 Consumer Profile

The category wise consumers and corresponding energy sales during the year 2019-20 are given in Table below:

Table3.5: Number of consumers and connected load of MSPDCL for FY 2019-20

Sl. No	Consumer Category	Pertains to FY 2019-20		
		Energy sold (MU)	No. of Consumers	Connected Load (KW)
1	Kutir Jyoti	3.88	15907	7367
2	Domestic	414.69	457254	711631
3	Commercial-LT	61.71	23787	89187
4	Public lighting-LT	3.58	462	1201
5	Public waterworks LT	1.26	35	436
6	Agriculture & Irrigation LT	1.13	47	358
7	Small and cottage industry-LT	21.00	2367	19261
8	Commercial-HT	20.70	694	20011
9	PWS HT	21.30	174	15544
10	Agriculture HT	0.73	27	719
11	Medium Industry-HT	4.23	80	4217
12	Large industry-HT	8.79	38	12075
13	Bulk supply-HT	86.03	388	48839
14	**Grant Total**	**649.03**	**501260**	**930846**

3.5 Demand

The energy demand of the MSPDCL is met by supply of power from central generating stations of North Eastern Region and Baramura Gas Based Plants in Tripura State. The actual annual energy requirement during FY 2019-20 is 943.83 MU.

3.6 Energy Audit

The MSPDCL is not conducting Energy Audit effectively either at the incoming stage or at the consumer end. At present, the MSPDCL is arriving at the losses by taking the input at 11kV point and compare it with energy sales at consumer end and showing the difference as distribution loss. Proper energy audit should be carried out to find out the actual distribution loss. Feeder wise energy audit is not done.

3.7 Energy Metering

MSPDCL has stated in compliance to directive 10 & 11 that unauthorized connections and connected load are being taken care under the prepaid metering plan. MSPDCL has already achieved 100 % prepaid metering for EC-I. AB Cables are being used in LT Supply to avoid the power theft. In EC-I around 90% LT lines are using AB Cables.

For EC-II & EC-III 100 % prepaid metering which was supposed to be achieved by end of FY 2021-22. The Physical verification drive shall be conducted in near future district /circle wise.

4. Public Hearing Process

4.1 Introduction

On admitting the ARR and Tariff Petition for FY 2021-22, the Commission directed the MSPDCL to make available the copies of petition to the general public, post the petition on their website and also publish the same in newspapers in an abridged form and invite comments/objections/suggestions from them.

One written objection is received, received from All Manipur Power Consumers Association, Imphal.

4.2 Public Hearing

In order to ensure transparency in the process of determination of tariff as envisaged in the Electricity Act, 2003, Public Hearing was held at Hotel Classic Grande, Dynasty Hall, Imphal on 16.04.2021 from 10:30 A.M. to 12:30 P.M. During the Public Hearing the participants from general public were given an opportunity to offer their views in respect of the ARR and Tariff Petition for FY 2021-22 of MSPDCL. The list of stakeholders who attended the Public Hearing is given in Annexure-II. The Officers of MSPDCL who attended the Public Hearing responded on the issues raised by the objectors.

4.3 Proceedings of Public Hearing

Objection 1:

How the provision for the poor people of the Manipur forfeited by shifting Kutir Jyoti consumers to Normal Domestic consumers?

Reply of MSPDCL:

The consumer categorization of Kutir Jyoti or Normal Domestic is finalized by the Hon'ble JERC –MM as per the rules and regulations in place. The consumer categories have been finalized as per the State /Central government schemes for providing intended benefits to the poor / below poverty level people in the state. Moreover, these categories have been finalized after due public consultation process. Therefore, the Petitioner is bound to follow the same. There are only 15,907 number of existing Kutir Jyoti Consumers in Manipur since most of the original Kutir Jyoti consumers were converted to LT Domestic due to higher consumption as per the tariff schedule which says for Kutir Jyoti Consumers "*if the total consumption in the last three months exceed 45 kWh, the connection should be converted to LT Category-2 (Domestic).*" For reference, relevant para of the existing tariff schedule is given below (page no 152 of the MSPDCL tariff order for FY 2020-21 finalized by JERC-MM).

*"…..**2. Subsidised Tariff for LT Supply:-***

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 supersedes by other new norms of KJS, if the total consumption in the last three months exceed 45 kWh, the connection should be converted to LT Category-2 (Domestic).*

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

Objection 2:

Replacing of more efficient LED lighting system is long overdue and we have noticed very slow-paced progress in this job in Imphal City at least, but it should not be at the cost of total required Lumen / Square meter?

Reply of MSPDCL:

Till date, MSPDCL has replaced 2636 number of conventional streetlights in Manipur with energy efficient LEDs. It may also be mentioned that 2206 conventional streetlights have been replaced with LEDs in Imphal City. Process is underway for procurement of more LEDs in order to achieve fast pace replacement of conventional Streetlights with more efficient LEDS.

Moreover, MSPDCL has distributed 2,05,600 number of LED bulbs in Imphal City under various programs of the central and state government. This has brought about an awareness among the general consumers regarding use of more energy efficient LED bulbs resulting in reduced electric bill and more energy saving.

The project of 130-Watt LED streetlight and 20 m high mast for district headquarters (Total cost Rs. 15.67 Crore) has been initiated by MSPDCL as a new project. State Government of Manipur has given approval for the same. Government guarantee approval letter including the details of the project has been submitted by the petitioner along with the Petition filed before JERC –MM. The Petitioner expects to complete the project on time.

Objection 3: **Energy Losses** graded as : -

(i) Inter State Transmission Losses in NER.
(ii) Intra State Transmission Losses.
(iii) Distribution Losses

Reply of MSPDCL:

The Petitioner has proposed distribution loss of 21.05% in the ARR and tariff proposal for FY 2021-22. The inter-state losses and intra-state losses are clearly shown in the tariff petition submitted before JERC –MM . The Energy balance calculations for FY 2021-22 as provided in the petition are reproduced below for sake of clarity.

SN	Particulars	Calculation	FY 2021-22 Approved		FY 2021-22 Proposed	
1	**Energy Sales**					
	a) LT Sales	A1		529.25		**523.22**
	b) HT Sales at 11kV	A2		162.85		145.24
	c) HT Sales at 33kV	A3				
	c) EHT Sales	A4				
	Total Energy Sales	**A**		**692.10**		**668.45**
2	**Distribution Losses**					
	a) Distribution losses at 33kV level	B1				
	b) Distribution losses in HT 11kV and LT system combined	B2	13.50%	108.01	21.05%	178.23
	Total Distribution Losses	**B**		108.01		178.23
3	**Energy requirement at T-D boundary**					
	a) 11kV and LT energy requirement combined	C1 = (A1+A2)/(1-B)		800.12		846.68
	b) HT 33kV energy requirement	C2 = A3/(1-B1)				
	Total energy requirement at T-D boundary	**C = C1 + C2**		800.12		846.68
4	**Intra-State Transmission Losses**	**D**	2.70%	22.20	8.50%	78.65
5	Energy requirement of EHT consumers	E = A4/(1-D)				
6	Energy Requirement of Distribution system consumers after grossing up for Intra-State Transmission losses	F = C/(1-D)		822.31		925.33
7	**Energy Requirement at state periphery**	**G = E + F**		822.31		925.33
8	**Inter-State Transmission Losses**	**H**	2.60%	21.951	2.60%	24.70
9	**Total Energy requirement**	**I = G/(1 - H)**		844.26		950.03
10	**Total Energy available**	**J**		**1185.56**		**1060.08**
11	**Surplus / (Deficit) at state periphery**	**J - I**		332.42		107.19*

*After inter-state loss

Objection 4:

Agricultural Power Reforms on the path of failure in Manipur: Several reforms were undertaken in the electricity-agriculture in the recent past. Deena Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) aimed at separation of feeders for agriculture and non-agriculture, better quality and reliable power supply along with rural electrification. Another reform which has been contemplated is the often-touted Direct Benefit Transfer (DBT) where the beneficiaries receive subsidies directly to their bank accounts. This reduces theft, ensures metering, helps in better targeting, as well as induces behavioral change of reducing water consumption owing to realistic upfront costs. Compared to other subsidies and avenues for DBT. It is easy to implement for the purpose of electricity subsidy.

How Manipur is handling Power for Agriculture? Fantastic, Manipur may not be able to achieve target food production inspite of having good infrastructures like i) Loktak lake lift Irrigation (ii) Khuga dam Irrigation III) Thoubal Dam Irrigation etc.

Simple excuses cannot escape their responsibility, public felt their lack of Technical knowhow, lack of Transparency, lack of Physical presence etc. At this critical juncture public felt it is right time to engage **expert from CEA/ from any public Sector** to tighten the situation, the already sicked (damaged power companies of Manipurand side by side engage consultancy service from any premier Institutions like IITs, IISc for guidance and system improvement from amongst **the Government Agencies and appoint under graduates from such premier Institutions………………**

Reply of MSPDCL:

MSPDCL has very low agricultural consumer base due to the fact that most of the rivers in Manipur are non-perennial. The energy sales in FY 2021-22 in irrigation and agricultural sector is projected as 1.15 MU (LT) and 0.75 MU (HT) out of total energy sale of 668.45 MU (0.28% of total sale). MSPDCL always releases the agricultural connection on receipt of application for agricultural connection. There is no problem envisaged for extending agricultural connection.

Under DDUGJY scheme, electrification projects were taken in 6 Districts of Manipur viz. Churachandpur, Bishnupur, Chandel, Senapati, Tamenglong and Ukhrul. Ministry of Power, Government of India sanctioned Rs. 204.73 Crores for implementing these projects. MSPDCL has completed the work pertaining to this project. Under DDUGJY-new scheme electrification projects were taken in 3 Districts of Manipur viz. Imphal East, Imphal West and Thoubal. Ministry of Power, Government of India sanctioned Rs 54.69 Crores for implementing these projects. At present, work is going on under this scheme.

MSPDCL is aware that Direct Benefit Transfer (DBT) scheme has been recommended under the Tariff Policy 2016. DBT is introduced in other sector like LPG for domestic use, however, in case of electricity, it is not yet practiced anywhere is India. Under DBT-electricity scheme, any consumers including Agricultural consumers have to pay full cost tariff upfront to the distribution utility and the difference between the full cost tariff and subsidized tariff is supposed to be directly transferred to consumers bank account by the Government. At present the Petitioner is billing the consumers as per the subsidized tariff and following up with the State Government for subsidy payment. Hence, the risk associated with subsidy payment is totally borne by the Petitioner and consumers are enjoying the benefit of subsidized tariff. Whenever the State Government of Manipur decides to introduce DBT scheme, MSPDCL will adhere to the same.

Objection 5:

Tariff increase - ……..such a marginal increase in supply of energy can be managed without increase in Tariff Rates during Pandemic Covid-19 period as many of the high energy area may not be work during IInd wave and beyond (Expected) the Pandemic in the coming days.

Hence Hon'ble JERC(M&M) may kindly consider not to change any of the Existing Tariff rates of poor Manipur State, as we also expecting another IInd wave of Pandemic Covid-19 very soon.

Reply of MSPDCL:

The Petitioner has projected the energy sales considering possible slowdown of economy due to the impact of Covid-19 Pandemic. As per the energy sales energy purchase has been derived. The growth rate for energy sales is projected lower than the normal. Accordingly, energy purchase is projected considering the inter-state loss, intra-state loss, and distribution loss as per standard procedure. However, along with energy procurement quantum another important factor is energy procurement cost which is not in control of MSPDCL. MSPDCL is largely depends on the central sector projects for electricity procurement for which CERC is the authority for determining the tariff of these projects. Also, PGCIL charges (Central Transmission Utility) are determined by CERC. MSPDCL has to pay the energy bills as per the CERC orders, otherwise power restriction would be imposed on Manipur. It may be noted that the energy rates have been increased significantly as per CERC orders. For example, PGCIL charges has increased significantly in recent past. In FY 2018-19, PGCIL charges were Rs 42.80 Cr and the same increased to as high as Rs. 75.34 Cr in FY 2019-20 (76% increase) . It may be noted that in the petition for FY 2021-22, PGCIL charges have been estimated as 5% more than previous year's actual figure. However, this is very conservative estimate and likely to be more in case CERC approves the charges as per CERC Tariff Regulations for 2019-2024 periods. Therefore, growth of power procurement cost is significantly higher than power procurement quantum. Due to increase in power procurement cost, Annual Aggregate Revenue (ARR) is also increased. So, accordingly to recover the ARR, tariff rates have been proposed by MSPDCL.

It may be noted that as requested by MSPDCL, Government of Manipur has accorded in principle approval for the subsidy amount to be provided by Government to bridge the gap between ARR and revenue income through proposed tariff for FY 2021-22. It may also be noted that due to current COVID 19 situation, the Government of Manipur agreed for increased e quantum of subsidy support than the last years' quantum. Therefore, MSPDCL feel that the tariff hike proposed in the tariff proposal of FY 2021-22 is bare minimum and utmost necessary to meet MSPDCLs ARR requirement for FY 2021-22. However, Hon'ble Commission will decide the final tariff after considering submission of MSPDCL.

Objection 6:

*A*s per one of the verdicts from our *Hon'ble Supreme Court of India*, one of the members of the regulatory commission must be from the legal fraternity and the *Hon'ble Supreme Court of India* notably ordered as below otherwise **we are compelled to get help from the Competent Court**:

"One of the members of Electricity Regulatory Commission should be a person of judicial background, quashing orders of various High Courts that the Chairperson of such bodies in States should be a High Court judge. The top court also said the judicial member should be part of the quorum in adjudicatory matters."

Reply of MSPDCL: - No comments, as this is outside the domain of the Petitioner.

Response of the Commission:

The stipulated provision **U/s-93 -Vacancies, etc., not to invalidate proceedings** of the Electricity Act 2003 reads as follows, which answers the objection:

"***No act or proceedings of the Appropriate Commission shall be questioned or shall be invalidated merely on the ground of existence of any vacancy or defect in the constitution of the Appropriate Commission.***"

Therefore, mere vacancy causing/arising out of deceased member and the absence of a legal member in the Commission members constitution would not preclude the Commission from issue of the Tariff Order during FY 2021-22 and the present proceedings are exercised by the Commission consciously under the enshrined provisions under Section-93 of the Electricity Act 2003.

5. Provisional True up for FY 2019-20

5.1 Background

MSPDCL is a Distribution Licensee, which fulfils the need for electricity of the consumers in the State of Manipur. As explained earlier, MSPDCL is required to submit the request for true-up for FY 2019-20 in this Petition, but since the audited financial accounts of FY 2019-20 are not ready at the time of filing this Petition, MSPDCL is unable to submit the final true up Petition. Hence, MSPDCL hereby submits a limited provisional true-up of FY 2019-20 based on the actual sales, power purchase quantum and costs, O&M expenses and capitalisation for FY 2019-20. As and when the accounts of FY 2019-20 are audited, MSPDCL shall file its final true up Petition. As only limited provisional True up for FY 2019-20 is being claimed, MSPDCL has not requested for pass through of the provisional Revenue Gap of FY 2019-20 and consequent sharing of gains and losses for FY 2019-20 along with this Petition, and the same shall be claimed at the time of seeking final true-up for FY 2019-20 based on audited accounts. The main objective of this limited provisional true-up Petition is to update the Commission regarding the Revenue Gap for FY 2019-20 based on the actual expenses and revenue after considering the subsidy. It may be noted that the true-up Petition is not based on the comparison of the actual expenses and revenue for FY 2019-20 with the expenses and revenue considered by the Hon’ble Commission in the Annual Performance Review (APR) of FY 2019-20 as decided in the JERC tariff Order dated 20 March 2020; as in that Order, the Hon’ble Commission has not passed through the impact of the APR, and has reviewed only the values related to components of APR. ARR for FY 2019-20 as approved in the Tariff order for FY 2019-20 (in case of Petition (ARR & Tariff) No. 2 of 2019) has been referred as ‘**Approved**’ in the subsequent section.

5.2 Energy Sales

MSPDCL caters to a diverse consumer mix comprising LT domestic, LT commercial, HT commercial, LT Industry, HT Industry, Public Street Lighting, Public Water Works and Agriculture consumers. LT Domestic category is the largest consumer category and comprises around 65% of the total sales of MSPDCL. The number of consumers in this category has increased rapidly in the recent years on account of the rural electrification schemes such as RGGVY, Saubhagya, etc. The actual category-wise energy sales as compared to the energy sales approved by the Hon’ble Commission (in ARR order and APR order dated 20.3.2020) for FY 2019-20 is given in the Table below:

Table 5.1: Category-wise Energy Sales (MU) for FY 2019-20

Sl. No.	Category	Approved (Tariff Order 26.3.2019)	Approved (APR Order 20.3.2020)	Actual (2019-20)
A	**LT Supply**			
1	KutirJyoti	20.96	3.72	3.88
2	LT Domestic	386.83	399.40	414.69
3	Commercial LT	45.43	58.54	61.71
4	Cottage and Small Industry	20.00	20.57	21.00
5	Public Lighting	5.08	3.79	3.58
6	Public Water-works	2.20	1.31	1.26
7	Irrigation and Agriculture	1.27	1.20	1.13
	LT Supply - Total	**481.77**	**488.52**	**507.24**
B	**HT Supply**			
1	Commercial	6.06	19.67	20.70
2	Medium Industry	4.10	4.17	4.23
3	Large Industry	6.00	7.77	8.79
4	Bulk Supply	114.00	81.73	86.03
5	Public Water-works	18.66	21.20	21.30
6	Irrigation and Agriculture	0.85	0.78	0.73
	HT Supply - Total	**149.67**	**135.31**	**141.79**
TOTAL (LT & HT)		**631.44**	**623.83**	**649.03**

The actual energy sold by MSPDCL in FY 2019-20 was 649.03 MU, which is slightly higher than the approved sales of 623.83 MU. In the FY 2018-19, several Kutir Jyoti consumers have been shifted to the normal domestic category consumers and therefore, the consumption is stable in this category compared to earlier years. Further due to increase in domestic category consumers, the sales to this category have been increased. Consumption in the public lighting has slightly reduced due to replacement of sodium/mercury vapour street lights to LED based street lights. Overall LT sales have been 507.24 MU as against the approved sales of 488.52 MU.

In the case of HT category sales, the sales to HT commercial, bulk supply and medium / large industries is slightly higher than the approved figures whereas the irrigation and agriculture sales is slightly lower than approved sales for FY 2019-20. Overall HT sales were 141.79 MU as against the approved figures of 135.31MU.

The MSPDCL requests the Hon'ble Commission to approve the actual category-wise sales of 649.03 MU, as shown in the Table above.

COMMISSION ANALYSIS:

Commission has provisionally approved the category wise actual sales at 649.03 MU for FY 2019-20 subject to verification of their reflection in the audited annual accounts upon their submission along with true-up petition in due course.

5.3 Distribution Loss

Petitioner's Submission:

The computation of actual Distribution losses for FY 2019-20 is shown in the Table below:

Table 5.2: Actual Distribution Losses for FY 2019-20

Sl. No.	Particulars (FY2019-20)	Unit	Actuals
1	Total Power Purchase	MU	943.83
2	Inter-State transmission loss @ 1.937% (**NER Loss)**	MU	18.28
3	Net Power Purchase (1-2)	MU	925.55
4	IEX Energy Purchase	MU	18.50
5	Return of Banked Energy (Import)	MU	214.04
6	Banking to outside utilities (export)	MU	-157.33
7	Energy Sold to IEX	MU	-95.97
8	**Net Available Energy**	MU	**904.80**
9	UI Overdrawal	MU	9.56
10	UI Underdrawal	MU	-4.36
11	Net power available at State periphery	MU	909.998
12	Intra State Transmission Loss %	%	8.50%
13	Intra State Transmission Loss (MU)	MU	77.350
14	Net Energy requirement at DISCOM periphery for sale within state	MU	832.64
15	Energy sale within state	MU	649.03
16	Distribution Loss	MU	183.61
17	**Distribution Losses w.r.t Energy Input at DISCOM Periphery**	**%**	**22.052%**

The actual Distribution Losses of 22.052% achieved by MSPDCL in FY 2019-20 is lower than 25.4% approved by Hon'ble Commission in its APR order dated 20.3.2020. The approved Distribution Loss was 15% as per the Hon'ble Commission's ARR Tariff Order for FY 2019-20.

The quantum of distribution losses is primarily due to the higher LT line lengths and the hilly / complex terrain of Manipur State. The long LT distribution lines and distribution at 11 kV are leading to higher distribution losses in the state. In the recent past, due to various initiatives in rural electrification, complete (100%) electrification at household level has been completed by MSPDCL. However, it is pertinent to note that the new consumer addition happened in most remote areas by extending the distribution network of MSPDCL. Due to smaller load and low consumption level, technical line losses would be quite high in those areas. MSPDCL has no role in this peculiar situation of high technical losses. It is just because of peculiar nature of the new consumer load and difficult geographical condition. MSPDCL is trying its best to serve them continuously and maintain these systems with its workforce efficiently.

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

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

Commission's Analysis

The Eastern Region (ER) pool losses @1.95% were ignored as there was no energy procured from ER stationed. While, the losses percentage for North Eastern Region (NER) was adopted by MSPDCL at 1.936% in FY 2019-20 **but not adopted the same for subsequent years**. However, Intra-state transmission losses are adopted at 8.50% for 2019-20, but for same year the transmission losses claimed by MSPCL is at 8.894% which is far higher than the losses indicated by MSPDCL and there is no explanation offered by MSPDCL for the adoption of such lower losses. The actual distribution losses claimed was 22.052% by MSPDCL is an improvement shown in their loss status over its previous year's performance is a welcome change noted by the Commission. But, there is hidden impact on the quantum of Outside State sales due to adoption of lower NER & State transmission losses. This aspect could not be checked and it will have to be scrutinised by Commission upon submission of audited accounts of 2019-20 in due course.

The Energy Balance during FY 2019-20 is recalculated as detailed in the table below.

Table 5.3: Distribution loss and Energy Balance derived by the Commission

Sl. No	Particulars (FY2019-20)	Unit	Energy
A	Own Generation	MU	-
B	Power purchase from CGS in ER	MU	0
C	Pool loss in ER	%	1.95%
D	Energy Losses at ER	MU	--
E	Net available energy after ER Losses	MU	0
F	Energy purchased from CGS in NER	MU	943.83
G	Gross energy handled at NER	MU	943.83
H	Pool loss in NER (as indicated in ARR filings)	%	**2.54%**
I	Energy Losses at NER	MU	23.97

Sl. No	Particulars (FY2019-20)	Unit	Energy
J	Net available energy after NER Losses	MU	919.85
K	ADD: IEX Purchases	MU	18.50
L	ADD: Net adjusted energy in Banked Energy	MU	56.71
M	ADD: Adjusted UI (Over draw – Under draw)	MU	5.20
N	Less: Energy sold at IEX (Outside State Sales)	MU	-95.97
O	**Energy available at State Periphery [J - (K to N)]**	**MU**	**904.29**
P	Less: Intra state (MSPCL) losses @ **8.894%**	MU	**80.43**
Q	**Net Input energy at Distribution for sale**	**MU**	**823.86**
R	Retail Energy sales (LT&HT)	MU	649.03
S	Distribution Losses (Q – R)	MU	174.83
T	Distribution Loss %	%	**21.22%**
U	Total T&D Losses in 2019-20 - (P + S)	MU	**255.26**
V	**Overall % of T&D Losses for FY2019-20**	%	**28.23%**

The reasons for NIL own generation was not elaborated by MSPDCL. Thus, Commission provisionally considers the own generation of MSPDCL as NIL MU for FY 2019-20 for True-Up purpose. Even the NER losses were adopted at 2.54% upon duly verifying their website data instead of 1.937%. As the overall T&D Losses are noted at 28.23% of the total input at State periphery level and distribution Losses are derived to be 21.22% upon taking the MSPCL indicated transmission losses at 8.894%.

It can therefore be inferred that 68.77% (i.e.,649.03/943.83) of the entire energy purchased is only being billed to consumers for revenue realisation. As such, this is not a healthy status and unwarranted. It is high time a thorough revamp is needed in entire T&D network within Manipur State and chalk-out an action plan so as to clinch the reasonable/healthy loss levels of 17% to 18% T&D Losses as early as possible to off-load the burden of higher tariffs to Consumers each year and to obviate State Government bearing higher Subsidy/Grants amount.

The situation can't entirely be imputed to network itself but there could be various means of prevailing commercial losses such as theft, pilferage, unbilled/ unauthorised consumption, meter stuck-up cases and Coffee Shop readings contributing to major chunk of distribution losses which are to be curtailed in shortest possible of time by implementing swift and dedicated action from MSPDCL which doesn't need any investment but requires foresightedness of the Electricity department staff and due diligent vigilance throughout.

As seen from the break-up of Non-Tariff Income at Form-F11 the miscellaneous charges from Consumers is Rs.0.82 Crs, miscellaneous receipts are only Rs.0.39 Crs and delayed payment surcharges from consumers is Nil. There seems no discernible action appears to have been though-off till date in decimating such distribution losses and pending arrears collection for which it is only the MSPDCL alone to be blamed for such inaction & ignorance of reality.

To comment on the Outstanding dues on sale of power by the end of 31.03.2020 the Form-S2 (Balance Sheet) & S4 (Current Assets and Liabilities) were not submitted in the ARR filings which implies the licensee is preventing Commission to know reality. It is a fact that Forms (S1 to S5) were unilaterally skipped from submission. Therefore, the commission construes that present revenue collection system in place is very weak, ineffective to undesirable levels and not at all effective.

The MSPDCL shall also conduct system studies and energy audit after proper assessment of metering systems in operation. Further, segregation of technical and commercial loss has to be completed without any plausible excuses and *initial report on these issues be submitted to Commission on or before end of August 2021.*

5.4 Energy Requirement

The actual energy requirement for FY 2019-20 as compared to the energy requirement approved by the Hon'ble Commission in the Tariff Order for FY 2019-20 is shown in the Table below:

Table 5.4 Energy Requirement for FY 2019-20 (MU)

Sl. No.	Particulars	Tariff Order 26.3.2019	2019-20 Actuals
1	Energy Sales	631.44	649.03
2	Distribution Loss	15.00%	22.052%
3	Distribution loss Quantum	111.43	183.61
4	**Energy Requirement at Distribution Periphery for sale within the State**	**742.87**	**832.64**

MSPDCL respectfully submits that the actual energy requirement was 832.64 MU, which is slightly higher than the 742.87 MU approved by the Hon'ble Commission in its Order dated 26 March, 2019. However, in APR, the energy requirement at distribution periphery was 836.23 MU. It is important to mention here that the data available from North Eastern Region Power Committee (NERPC), the availability at state periphery (schedule and actual), are considered from the DSM bill prepared by NERPC (please refer Format F1d for month wise details). So, the actual availability at state periphery of 909.998 MU is finalised and firm figure for the State of Manipur. **The energy requirement at distribution periphery can be contested because of not having proper meter at transmission (MSPCL) and distribution (MSPDCL) intersection point. MSPDCL has considered the intra-state transmission loss as per approved figure for FY 2019-20.**

Commission's Analysis

Commission provisionally accepts the actual category wise sales at 649.03 MU and energy requirement at Discom Input is 823.86MU for FY 2019-20 subject to their verification with the reflection in the audited annual accounts upon their submission along with true-up petition in due course. The comments with regard to distribution losses were already made at the relevant item. As seen from the submission of MSPDCL the Discom input is also subjected to vary at a later date and it is too early to draw any conclusions now.

5.4.1 Energy Purchase

MSPDCL has been allocated power from various Central Generating Stations in North Eastern Region, viz., NEEPCO, NHPC, Tripura-Baramura and OTPC-Palatana, and NTPC Bongaigaon for power purchase under long term PPAs. The actual power purchase quantum and energy availability as compared to quantum approved for FY 2018-19 in the Tariff Order for FY 2019-20 are as detailed in the Table below:

Table 5.5 Energy Purchase for FY 2019-20 (MU)

Sl. No.	Source of Power	Tariff Order 26.3.2019	(2019-20) Actuals
A	**CGS – NEEPCO**		
1	Kopili -I HEP	65.41	52.72
2	Kopili-II HEP	7.24	7.08
3	Khandong HEP	13.42	12.00
4	Ranganadi HEP	115.12	107.25
5	Doyang HEP	18.13	13.57
6	Assam GBPP	113.75	90.21
7	AGTPP	64.55	57.59
B	**CGS – NHPC**		
1	Loktak HEP Purchased Power	194.10	106.85
2	Loktak HEP- Free Power	76.37	41.97
C	**Others**		-

Sl. No.	Source of Power	Tariff Order 26.3.2019	(2019-20) Actuals
1	Baramura GBPP Unit IV and V	77.31	57.39
2	OTPC Palatana	221.42	199.77
D	**New Plants**		-
1	NTPC Bongaigaon Unit I to III	146.55	158.49
2	Monarchak Gas Based PP (NEEPCO)	NA	-
3	Kameng HEP Stage I	NA	-
4	Kameng HEP Stage II	NA	-
5	Para HEP	0	38.93
6	Tuirial HEP	NA	-
7	Lower Subansiri Stage I	NA	-
8	Lower Subansiri Stage II	NA	-
9	Renewable – Solar	0	-
10	Renewable – Non-Solar	0	-
	Sub -Total	**1131.37**	**943.83**
	Total Purchase	**1131.37**	**943.83**

As can be seen from the above Table, the actual power purchase quantum from CGS in FY 2019-20 was 943.83 MU, which is lower than the approved quantum of 1131.37 MU. The reason for this deviation is due to non-availability of power from CGS stations or deviation in load requirement due to seasonal variation. The requirement in the state is higher in winter months when hydro availability is lower and MSPDCL has to purchase from outside to meet the state demand. To manage this, purchase through banking mechanism has been planned. Actually, MSPDCL banked available power in summer months to use it in winter months when availability is low. Also, actual deviation is managed by MSPDCL by way of purchase/sell of power from IEX as per requirement or by availing the banking facility with other traders (for detailed monthly trend of IEX and banking sale / purchase please refer Format F1a). The detailed energy purchase is given below:

Table 5.6 Energy Purchase from other sources and deviation for FY 2019-20 (MU)

Sl. No.	Source of Power	Tariff Order 26.3.2019	(2019-20) Actuals
1	**Total Purchase**	**1131.37**	**943.83**
2	NER Pool losses	2.85%	1.94% *
3	NER Pool losses	32.24	18.28
4	**Net Power Purchase**	**1099.13**	**925.55**
5	IEX Purchase		18.50
6	Return of Banked Energy + (i/c prev.year)		214.04
7	Banking to outside utilities		157.33

Sl. No.	Source of Power	Tariff Order 26.3.2019	(2019-20) Actuals
8	Energy Sold to IEX		-95.97
9	Net Available Energy		904.80
10	UI Under drawl		-4.36
11	UI Over drawl		9.56
12	**Net Power Available at State Periphery**		**909.99**

From above it can be seen that the net power purchase from the CGP for FY 2019-20 is 925.55 MU. The purchase from IEX is 18.50 MU and sales are 95.97 MU. After considering the IEX, UI and banking the net electricity available at the state periphery is 909.998 MU.

MSPDCL requests the Hon'ble Commission to approve the actual power purchase quantum from CGPs and other sources for Limited provisional truing up for FY 2019-20.

Commission Analysis

The energy needed to purchase would have been still lower, had the Licensee properly availed the banked energy balance at the year beginning and had not resorted to Overdraw of 9.56 MU. MSPDCL could have averted the Outside State surplus sale at 95.97 MU. *Unfortunately, this is inclusive of 56.71 MU of net banked energy sold and the needless IEX purchase of 18.50MU during the year as Outside state sale (OSS) quantity*. The subtle inference of Outside State sales break-up from Licensee's ARR submission as understood by the Commission is indicated below:

Table 5.7 Break-up summary of OSS as per the ARR submission for 2019-20

Sl. No	Particulars	Energy (MU)
1.	**Grossed-Up Energy sold at IEX**	**95.97**
2.	IEX purchases made in 2019-20	-18.50
3.	Net withdrawal of banked energy (214.04MU less 157.33MU Re-banked this year)	-56.71
4.	**Sub-Total**	**20.76**
5.	**Net quantum of UI drawn energy** (Overdrawn 9.56MU & Underdrawn 4.36MU)	-5.20
6.	**Deduced Outside State Sales (ARR filing)**	**15.56**

The Outside State Sales (OSS) quantum 95.97 MU of FY 2019-20 appears to have come down as compared to 2018-19 figures of 139.49MU is a welcome change noted by the Commission in this aspect. Still directs the licensee to minimise the OSS quantum as each unit that is being sold is causing loss of above Rs.2.07

per unit (i.e.,4.41-2.337) being sold and should resort to such sales only dispose of any meagre quantum. But in reality, the loss sustained is not on lower quantum of 15.56 MU but on actual sales made to the tune of 95.97 MU, which amounts to Rs.19.87 Crs in terms of monetary loss sustained getting passed on to all consumers.

5.5 Power Purchase Cost

Petitioner's submission

The actual Power Purchase cost as against the power purchase cost approved in the Tariff Order for FY 2019-20 is shown in the Table below:

Table 5.8 Actual Power Purchase Cost for FY 2019-20

Sl. No.	Source of Power	Tariff Order 26.3.2019		Actual 2019-20	
		Total Cost (Rs Cr)	Avg Rate (Rs/kWh)	Total Cost (Rs Cr)	Avg Rate (Rs/kWh)
A	**CGS – NEEPCO**				
1	Kopili -I HEP	7.97	1.22	6.17	1.17
2	Kopili-II HEP	1.06	1.46	0.98	1.38
3	Khandong HEP	2.41	1.80	2.19	1.83
4	Ranganadi HEP	25.22	2.19	23.93	2.23
5	Doyang HEP	8.01	4.42	8.05	5.93
6	Assam GBPP	49.74	3.77	45.76	5.07
7	AGTPP	22.99	3.56	25.64	4.45
B	**CGS – NHPC**				
1	Loktak HEP Purchased Power	64.89	3.34	47.05	4.40
2	Loktak HEP- Free Power	0.00	0.00	0.00	0.00
C	**Others**				
1	Baramura GBPP Unit IV and V	14.20	1.84	17.29	3.01
2	OTPC Palatana	72.65	3.28	66.76	3.34
D	**New Plants**				
1	NTPC Bongaigaon Unit I to III	83.31	5.68	149.13	9.41
2	Para HEP			19.46	5.00
3	Renewable – Solar	23.12			
4	Renewable – Non-Solar	2.81			
	Sub -Total	**378.36**	**3.34**	**412.40**	**4.37**
5	IEX Sale			-22.43	2.34
6	IEX purchase			6.57	3.55
7	UI Overdrawl			5.40	5.65
8	UI Underdrawl			-1.50	3.45
9	Supplementary bills			7.55	
10	Late payment surcharge			1.39	
11	Open access charges paid for banking			0	0
	Total	**378.36**	**3.34**	**409.39**	**4.41**

The total actual power purchase cost including UI over-drawal and under-drawal charges, purchase cost from IEX, supplementary bill etc. is 409.39 Cr for FY 2019-20 as against the commission's approval of 378.36 Cr. However, the above cost also includes outside sale income through IEX of Rs 22.43 Cr (negative sign in the above table means income).

MSPDCL requests the Hon'ble Commission to approve the actual power purchase costs for FY 2019-20, as shown above.

Commission Analysis:

The Late payment surcharges of Rs.1.39 Crs can't be passed on to the consumers without knowing the reasons and circumstances under which they were levied. It shall be adjusted from the Govt subsidy being received if default is from licensee side. The IEX purchases of 18.50 MU at a cost of Rs.6.55 Crs were in no way useful but for selling them in Outside State Sales altogether also can't be allowed to be passed on in FY2019-20. The IEX purchases this year have gone up when compared to 2018-19. The allowability of the supplementary bills amounting to Rs.7.55 Crs will be considered for truing-up upon submitting the detailed break-up for the entire amount at the time of submitting the true-up petition along with the statutory audited accounts annexed to it. It is also noted that the Licensee has ignored and not attempted to comply with RPPO obligation as per the Regulation issued and shall have to produce the RPO certificates to the tune it is required at the time of truing up.

5.6 Transmission Charges

Petitioner's Submission

The transmission charges include the charges paid to PGCIL, MSPCL and SLDC. The summary of transmission charges approved by the Commission and the actual charges paid by MSPDCL for FY 2019-20 is as follows:

Table 5.9 Transmission Charges for FY 2019-20 (Rs. Crore)

Sl. No.	Particulars	Tariff Order 26.3.2019	2019-20 Actual
1	PGCIL Charges	61.12	75.34
2	MSPCL Charges	85.68	85.68*
3	SLDC Charges	0.71	0.74
4	NERLDC Charges		0.64
	Total	**147.51**	**162.40**

* Presently consider the MSPCL charges as per the Commission order before reconciliation with MSPCL. Final figure would be as per audited account.

It is to be noted that PGCIL charges have been increased substantially in FY 2019-20. The same is external to MSPDCL and could not be controlled by MSPDCL. The month-wise payment made to PGCIL is given below:

Sl. No.	Particulars	PGCIL POC 1 bill	POC 3 bill	POC 4 bill
1.	**Apr-19**	43,501,100	25177052	1030331
2.	**May-19**	42,470,303	10897650	
3.	**Jun-19**	42,371,061	19122357	
4.	**Jul-19**	44,235,547	85080194	
5.	**Aug-19**	43,753,798		
6.	**Sep-19**	46,159,837		
7.	**Oct-19**	45,793,289		
8.	**Nov-19**	61,356,289		
9.	**Dec-19**	60,311,449		
10.	**Jan-20**	61,432,455		
11.	**Feb-20**	59,911,761		
12.	**Mar-20**	60,802,481		
	Total	**612,099,370**	**140,277,253**	**1,030,331**

MSPDCL requests the Hon'ble Commission to approve the actual Transmission Charges of Rs. 162.40 for FY 2019-20, as shown in the Table above.

Commission Analysis:

The approved Transmission charges in the APR order were at 142.34 crs and as against it the MSPDCL is now claiming at **Rs.162.40 Crs** and the majority of excess charges are attributable to inflated MSPCL charge and additional PGCIL costs. The MSPCL charges should have been shown as Rs.66.91.24 Crs based on Transmission ARR filings for 2019-20 and shall not be at Rs.85.68 Crs. Any excess amount if happened to have paid to MSPCL based on earlier orders will get reduced suitably and the MSPDCL would anyway get that amount adjusted against future dues to MSPCL. The charges paid to PGCIL will be allowed on actual payments effected to PGCIL.

As the true-up has to be made only once based on actuals incurred and revisiting of the same is not permissible, therefore true-up on provisional basis cannot be taken-up by the Commission. In this regard, the licensee is directed to file the true-up petition separately for FY2019-20 once Audited Annual Accounts are ready in full shape.

5.7 Operation and Maintenance Expenses

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

In the FY 2019-20, MSPDCL has incurred the O&M expenses detailed below:

5.8 Employee Cost

Petitioners Submission

Employee Expenses includes the Basic Pay, Dearness Pay, Dearness allowances, house rent allowances, and other allowances, new pension scheme paid to the staff etc. The actual employee expenses incurred by MSPDCL in FY 2019-20 as compared with the approval in the Tariff Order for FY 2019-20 are shown in the Table below:

Table 5.10 Employee Expenses for FY 2019-20

(Rs. Crore)

Sl. No	Employee Category	Tariff Order 26.3.2019	2019-20 Actuals
1	Total Employee Expenses	106.68	74.77

The actual employee expenses are lower than the employee expenses approved by the Hon'ble Commission for FY 2019-20. Actual recruitment of employee as envisaged earlier was not conducted during the year. Also, payment of arrears as estimated earlier due to seventh pay commission was not implemented during the year under review. MSPDCL requests the Hon'ble Commission to approve the actual Employee Expenses of Rs. 74.77 Crore for FY 2019-20.

Commission Analysis:

The employees cost comprises of Regular Employees, Work Charged, Muster Roll and Contract employees also. There is no detailed calculation break-up in respect of each cadre in the ARR filing submission in support of the above figure for Commission's scrutiny. The APR amount approved was at 77.99 Crs in the Tariff Order Dt.20.03.2020. **Therefore, the approval of employee cost of Rs.74.77 Crs will be subjected to verification after the submission of the statutory auditor certified audited annual accounts along with true up petition separately.**

5.8.1 R&M Expenses

Petitioner's Submission

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

The actual R&M expenses incurred in FY 2019-20 as compared to the approved expenses are as follows:

Table 5.11 R&M Expenses for FY 2019-20

(Rs. Crore)

Particulars	Tariff Order 26.3.2019	Approved in APR (20.3.20)	Actuals 2019-20
R&M Expenses	7.69	12.00	12.87

MSPDCL requests the Hon'ble Commission to approve the actual R&M expenses of Rs. 12.87 Crore for FY 2019-20.

Commission Analysis:

Since, the cost now claimed is higher than it was approved in APR previously and no detailed explanation in support of increase is provided anywhere in the ARR filing submission, therefore this cost cannot be approved now. The approval of R&M cost will be subject to verification with the statutory auditor certified audited annual accounts after its submission along with true up.

5.8.2 Administration and General Expenses

Petitioner's Submission

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 2019-20 is as follows:

Table 5.12: - A&G Expenses for FY 2019-20

(Rs. Crore)

Sl. No	Particulars	Tariff Order 26.3.2019	APR (Apprv) 20.03.20	Actual 2019-20
1	Advertisement			0.15
2	Auditors Fee			0.02
3	Consultancy charges & Technical Fees			0.20
4	Conveyance and Travels			0.16
5	JERC License Fee			0.10
6	Ex-Gratia			0.11
7	Hiring of Vehicle			0.08

Sl. No	Particulars	Tariff Order 26.3.2019	APR (Apprv) 20.03.20	Actual 2019-20
8	Insurance			0.01
9	Legal Charges			0.01
10	License and Registration fee			0.08
11	Miscellaneous Expanses			0.14
12	Petrol & Oil - Vehicle			0.00
13	Oil DG set & Transformer			0.26
14	Printing and Stationary			0.10
15	Rent, Rate and Taxes			0.06
16	Telephone			0.21
17	Training Expenses			0.01
18	Vehicle running expenses			0.30
19	Outsourced Manpower - **Quess**			2.30
	Total	**9.45**	**7.29**	**4.31**

The actual A&G expenses in FY 2019-20 are significantly lower than the expenses approved in APR for FY 2019-20. MSPDCL requests the Hon'ble Commission to approve the actual A&G expenses of Rs. 4.31 Crore for FY 2019-20.

Commission Analysis:

The approval of A&G Expenses will be subject to verification with the statutory auditor certified audited annual accounts after its submission along with true up. The Out sourced Manpower – Quess for an amount of Rs.2.30 Crs should have been included in employee cost under contract employee amount and how can it be again included in A&G Expenses. Therefore, the A&G Expenses shall be at Rs.2.01Crs only.

The total O&M expenses incurred by MSPDCL in FY 2019-20 are shown in the Table below:

Table 5.13 Actual O&M Expenses for FY 2019-20 (Rs. Crore)

Sl. No.	Particulars	Approved	Actual
1	Employee Expenses	106.68	74.77
2	R&M Expense	7.69	12.87
3	A&G Expense	9.45	4.31
	Total	**123.82**	**91.95**

The actual O&M expenses are thus, lower than the O&M expenses approved by the Hon'ble Commission in the Tariff Order for FY 2019-20. MSPDCL requests the Hon'ble Commission to approve the actual O&M expenses of **Rs. 91.95 Crore** for FY 2019-20.

Commission Analysis:

The Approval of these costs cannot be made at this juncture by the Commission

pending submission of the Statutory auditors certified annual accounts.

5.9 Capitalisation

Petitioner's Submission

MSPDCL undertakes capital expenditure to meet the growing demand for electricity in the State and for system augmentation and strengthening. MSPDCL receives significant grant from the State Government for creation of capital asset, as well as consumer contribution for capital works, with the balance funding sourced from loans. Hon'ble Commission approved the capitalization in the ARR order as per approval was given in the MYT order. Details of actual capitalization achieved in FY 2019-20 vis-à-Vis the capitalisation approved by the Hon'ble Commission is shown in the Table below:

Table 5.14 Capitalisation for FY 2019-20 (Rs. Crore)

Sl. No	Name of the Scheme	Tariff Order 26.3.2019	APR Approved	Actuals
1	RAPDRP – 7 Towns	276.83	257.20	257.20
Total		**276.83**	**257.20**	**257.20**

MSPDCL requests the Hon'ble Commission to kindly approve the actual capitalization of Rs. 257.20 Crore for FY 2019-20. MSPDCL has continuing execution of old projects and among them as per completion of the schemes, claiming the capitalization. So, the Petitioner humbly requests the Commission to approve the capitalization of the said projects, which are old and ongoing schemes only. In the year under review, **Restructured Accelerated Power Development and Reforms Programme (R-APDRP)** was completed for 7 towns and associated cost was capitalized.

Commission's Analysis

The MSPDCL has not yet submitted audited annual accounts from 2016-17 to 2018-19. However, MSPDCL has furnished audited annual accounts only for FY 2015-16. Unless all the audited annual accounts are submitted up to FY2019-20 the approval of capitalization of assets cannot be approved. Audited Annual accounts from FY 2016-17 to 2018-19 are not yet finalized and it is pre-matured to approve anything.

As per the present filing the licensee had not submitted any item-wise detailed break-up for the works executed with Rs.132.29Crs investment and their stage

of completion left undisclosed and also the detailed list of assets worth Rs.257.20Crs capitalized kept enigmatic. The Commission gave investments approval only for Rs.80.57Crs for FY2019-20 in the Tariff Order Dt 20.03/.2020, but the Investment amount seems exceeded by the Licensee to the tune of Rs.51.72 crs without seeking commission approval and the details are kept undisclosed. In the absence of those details in the present submission, no fresh expenditure capitalisation is allowed now and if at all executed then it will be assumed to be not from MSPDCL own resources and it is treated as from any government Grants. Therefore, capitalization of assets if any in this would not allowed for claiming depreciation charge pending audited Accounts.

The MSPDCL is therefore directed to reconcile all the capital investment from FY 2015-16 onwards and furnish correct data along with the true-up filing in due course for approval of investment incurred.

5.10 Interest on Working Capital

Petitioner's Submission

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

The computation of normative Interest on Working Capital (IoWC) for MSPDCL for FY 2019-20, is shown in the Table below:

Table 5.15 Interest on Working Capital for FY 2019-20

(Rs. Crore)

Sl. No.	Particulars	Tariff Order 26,3,2019	APR Approved	Actuals 2019-20
1	O&M expenses for 1 month	10.32	8.55	7.66
2	Maintenance spares @ 1% of GFA	8.34	8.12	10.69
3	Receivables equivalent to one month of expected revenue at prevailing tariffs.	48.97	31.37	31.34
4	Consumer Security Deposit	0.67	14.88	14.88
	Total (1+2+3-4)	**66.91**	**33.16**	**34.81**
5	SBAR as approved	13.45%	13.45%	13.45%

Sl. No.	Particulars	Tariff Order 26,3,2019	APR Approved	Actuals 2019-20
	Interest on Working Capital	9.01	4.46	4.68

MSPDCL requests the Hon'ble Commission to approve the IoWC of **Rs 4.68 Crore** for FY 2019-20.

Commission's Analysis:

Unless all the audited annual accounts are submitted for FY2019-20 the approval of Interest on working capital cannot be approved and it will be decided upon submission of true-up with audited accounts in due course. The admissibility of these charges would depend upon actually availing of short-term borrowings for working capital needs by the Licensee.

5.11 Gross Fixed Assets and Depreciation

Petitioner's Submission

The closing balance of Gross Fixed Asset (GFA) for FY 2018-19, as submitted in last year's petition, has been considered as the opening balance of GFA for FY 2019-20. The depreciation has been computed under straight-line Method, at the rates specified in the JERC (MYT) Regulations, 2014, on the GFA in use at the beginning of the year and addition in assets during FY 2019-20. The Depreciation expenses for FY 2019-20 are shown in the Table below:

Table 5.16 Depreciation for FY 2019-20 (Rs. Crore)

Sl. No.	Particulars	Tariff Order 26.03.2019	Actual 2019-20
1	Opening GFA	1136.99	811.78
2	Addition during the Year	276.83	257.20
3	Retirement	0	0.00
4	Closing GFA	1413.82	1068.98
5	Average GFA	1275.40	940.38
6	Average Rate of Depreciation	2.42%	2.42%
7	Depreciation	30.86	22.76
8	**10% of Gross Depreciation**	**0.31**	2.28

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

MSPDCL requests the Hon'ble Commission to approve the Depreciation of Rs. 2.28 Crore, as sought by MSPDCL.

Commission's analysis

The Approval of depreciation cannot be made at this juncture by the Commission pending submission of the Statutory auditors certified annual accounts. As per this filing, it is construed that the funds utilized for creation are drawn from Grants from government only. The depreciation amount now allowed will be limited to Tariff Order amount of Rs.0.31Crs.

5.12 Interest on Loan

Petitioner's Submission

The major part of capital expenditure undertaken by MSPDCL is funded by the State Government's grants and Central Government's grant. However, in addition to these sources of funds, MSPDCL has also taken a significant amount of loan from REC for RAPDRP-B Project and RGGVY project. The repayment of loans during the year has been considered as per principal repayment made, and the repayment has been considered proportionately based on the opening loan balance. The details of loans with the computation of Interest on loan are shown in the Table below:

Table 5.17 Interest on Loan for FY 2019-20 (Rs. Crore)

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

MSPDCL requests the Hon'ble Commission to kindly approve the interest on loan of Rs. 6.08 Crore for FY 2019-20. The interest calculation would be finalised in the time of preparation of annual account and can be incorporated in the final true-up petition.

Commission Analysis:

The Approval of interest on Loans availed depends upon the various issues such as the need & purpose of drawal and its prior approval, amount of loan drawn, terms & conditions of repayment and its rate of interest. Without providing any such details for verification of those aspects and their reflection in Annual accounts, approval cannot be made at this juncture by the Commission pending

submission of the Statutory auditors certified audited annual accounts.

5.13 Return on Equity

As there is no fresh equity infusion by MSPDCL in the FY 2019-20, the Return on Equity (RoE) for FY 2019-20 is considered same as that approved by the Hon'ble Commission in its Tariff Order for FY 2019-20. The RoE for FY 2019-20 is shown in the Table below:

Table 5.18 Return on Equity for FY 2019-20 (Rs. Crore)

Sl. No.	Particulars	Tariff Order 26.03.2019	Actual 2019-20
1	Return on Equity	1.95	1.95

MSPDCL requests the Hon'ble Commission to approve the Return on Equity of **Rs.1.95** Crore for FY 2019-20.

Commission Analysis:

The Commission provisionally approves the return on equity at Rs.1.56 Crs without considering the Income tax component and the remaining amount will be admitted depends upon the incidence of tax on actual basis. **The Financial formats from S1 to S4 was omitted by MSPDCL in the ARR submission and its verification could not be made in the absence of audited financial accounts for this year.**

5.14 Write-Off of Bad Debts

MSPDCL has considered Nil Write-off of Bad Debts for FY 2019-20, as annual account is not finalised yet and requests the Hon'ble Commission to consider the actual bad debts figure after finalization of annual account in its true-up petition.

Commission's analysis

The Writing-off the Bad debts is not acceptable to the Commission, for the reason that the Licensee had not made any assiduous efforts so far in collection of the pending dues accumulated to the tune of above Rs.400 Crs to the end of 31.03.2019 as was submitted in the reply to additional information. This can be allowed only when Commission is thoroughly satisfied that despite the best efforts by Licensee the dues are proved to be non-recoverable and the onus of such proving rests with the MSPDCL. **Moreover, the components of NTI don't contain any penalties or late payment surcharges appears to be levied to indicate licensee sincere efforts to recover dues.**

5.15 Non-Tariff Income

The Hon'ble Commission approved Non-Tariff Income of Rs. 5.40 Crore in the Tariff Order for FY 2019-20. The actual Non-Tariff Income earned by MSPDCL in FY 2019-20 was Rs. 6.17 Crore, as shown in the Table below:

Table 5.19: Non-Tariff Income for FY 2019-20 (Rs. Crore)

Sl. No.	Particulars	Tariff Order 26.3.2019	2019-20 Actuals
1	Interest from Bank		4.84
2	3.75% Agency Charge		1.21
3	Miscellaneous Receipt		
4	Fees from Tender forms		0.12
	Total	**5.40**	**6.17**

MSPDCL requests the Hon'ble Commission to approve the actual Non-Tariff Income of Rs. 6.17 Crore for FY 2019-20.

Commission's analysis

The Approval of this costs cannot be made at this juncture by the Commission pending submission of the Statutory auditors certified annual accounts. However, the Commission approved the APR amount at Rs.6.75 Crs but the same was not depicted in the above tabulation by licensee. However, the amount will be approved after submission of Audited Annual financial accounts for 2019-20.

5.16 Aggregate Revenue Requirement

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

Table 5.20 Aggregate Revenue Requirement for FY 2019-20 (Rs. Crore)

Sl. No	Particulars	Tariff Order 26.3.2019	Actuals
1	Fuel Cost		
2	Power Purchase Cost	378.36	409.39*
3	Inter-State Transmission Charges	61.12	75.34
4	Intra-State Transmission Charges	85.68	85.68
5	SLDC & NRLDC Charges	0.71	1.38
6	Employee Cost	106.68	74.77
7	R&M Expenses	7.69	12.87

Sl. No	Particulars	Tariff Order 26.3.2019	Actuals
8	Administration and General Expenses	9.45	4.31
9	Depreciation	0.31	2.28
10	Interest and Finance Charges	5.17	6.08
11	Interest on Working Capital	9.01	4.68
12	Write off of bad debts	3.00	0.00
13	Return on Equity	1.95	1.95
14	Add: Income Tax		
14	Less: Non-Tariff Income	5.40	6.17
16	**Net ARR**	**663.72**	**672.55**

* Net power purchase cost after reducing the gross power purchase cost by Rs 22.43 Crore of outside sale (IEX) income

The ARR for FY 2019-20 is Rs. 672.55 Crore, which is close to the ARR approved by the Hon'ble Commission for FY 2019-20 in its Tariff Order dated 26 March, 2019. MSPDCL requests the Hon'ble Commission to approve the same.

Commission's analysis

As explained at each element of the ARR items, the approval of the ARR cannot be made at this juncture by the Commission pending submission of the Statutory auditors certified annual accounts. The MSPDCL did not depict the APR approved value of Rs.628.62 Crs and the actual amount now claimed Rs.672.55 Crs is comparatively more and needs scrutiny. The MSPDCL is advised to submit the true-up petition later upon finalisation of the audited annual accounts of this FY 2019-20 separately.

5.17 Revenue from Sale of Power

Petitioner's Submission:

The revenue from sale of power to consumers for FY 2019-20 was Rs. 368.12Crore as approved by Hon'ble Commission in its ARR / Tariff order for FY 2019-20. The actual revenue from sale of power to consumers in FY 2019-20 was Rs. 305.23Crore. MSPDCL requests the Hon'ble Commission to approve the same and the same will be finalised after the annual account of MSPDCL gets audited and reviewed by CAG also.

Commission's Analysis:

From the basic data such as Consumers, contract load and energy sales made

available in the formats-R1 for FY 2019-20, the revenue that would have been realised was assessed by Commission applying FY2019-20 prevailing tariff rates had yielded an amount of Rs.388.34 Crs from retail sales. But the licensee has indicated the revenue amount to be only Rs.305.23 Crs leaving a large difference in revenue of about Rs.83Crs under stated by licensee and the break-up details for Rs.305.23 Crs kept undisclosed in the relevant format specially designed in formats for it. The full break-up details of the revenue realised from the retail consumers as well as the amount received from Outside State Sales along with invoices issued were asked for submission and the same was not submitted for verification and scrutiny.

Under these circumstances, the revenue indicated cannot be considered and hence, the information called for shall have to be submitted in full shape to the Commission for taking a decision to approve actual revenue realised.

5.18 Revenue Gap

The Revenue Gap of MSPDCL for FY 2019-20 as against the Revenue Gap approved by the Hon'ble Commission in the Tariff Order for FY 2019-20 is shown in the Table below:

Table 5.21 Revenue Gap for FY 2019-20 (Rs. Crore) by MSPDCL

Sl. No.	Particulars	Approved	APR approved	Actuals
1	Net ARR	587.67	628.62	672.55
2	Total Revenue	368.12	391.58	305.23
3	State Government Revenue Subsidy	219.55	219.55	219.00
4	**Unmet Revenue Gap**	-	**17.49**	**148.32**

As can be seen from the above Table, the Unmet Revenue Gap for FY 2019-20 is Rs. 148.32 Crore after considering State Government subsidy of Rs 219 Crore. The final figure will be considered after reconciliation at the time of annual audit of accounts. The actual revenue gap can only be finalized **during the final Truing up process** for FY 2019-20, and MSPDCL shall seek pass through of such amounts with associated carrying cost and sharing of efficiency gains and losses at that time.

Commission Analysis:

The unmet gap was conspicuously due to suppressed revenue of Rs.305.23Crs

as earned. The assessment of revenue calculation method appears to be erroneous based on the all other paraments furnished to Commission for verification. Based on which the revenue yield should have been Rs.397.53Crs considering the Power Factor to be 0.90 instead of 0.98 being unilaterally preferred by Licensee ignoring the Electricity Supply Code in vogue. *This matter is flagged as an important issue to be examined thoroughly under submission of Audited Annual accounts for FY 2019-20.*

The Carrying cost cannot be entertained even at the time of truing up of this ARR as the delay in submission is from MSPDCL side due to non-finalisation of audit of the annual accounts on time and any further delay or non-furnishing of the called for information will be dealt seriously by the Commission with suitable penalties depends upon the gravity at the time of truing up.

The True-up for FY 2019-20 will be taken up afresh upon filing the separate petition along with statutory auditor certified audited accounts in full shape with adequate supportive details for the claims made therein. There is no regulation provision for provisional & final true-up for the same period. Any true-up once made will not be revisited. Hence the concept of provisional & final true-up by licensee may not be expected hereafter.

6. Annual Performance Review for FY 2020-21

6.1 Background

The Petitioner humbly submits that the present APR based on actual provisional expenses of FY 2019-20 and first six-month data available for FY 2020-21. 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 2020-21 as approved in the JERC tariff Order in Petition (ARR & Tariff) No. 2 of 2020 dated 20 March 2020 (henceforth referred as 'Approved' order with reference to FY 2020-21). However, the Petitioner requests the Hon'ble Commission to review the expenses and revenue for FY 2020-21 based on the trend observed as per actual data.

6.2 Energy sales

MSPDCL caters to a diverse consumer mix comprising LT domestic, LT commercial, HT commercial, LT Industry, HT Industry, public lighting, public water works and agriculture consumers. LT Domestic category is the largest consumer category and comprises around 65% - 68% of the total sales of MSPDCL. The number of consumers in this category has increased rapidly in the recent years on account of the rural electrification schemes such as RGGVY, Saubhagya, etc. The sales as projected for the whole year, actual category-wise energy sales for six months as compared to the energy sales approved by the Hon'ble Commission for FY 2020-21 is given in the Table below:

Table 6.1: Category-wise Energy Sales (MU) for FY 2020-21

Sl. No.	Category	FY 2020-21		
		Tariff Order 20.3.2020	Six Months Actual	Revised Proj.
A	**LT Supply**			
1	Kutir Jyoti	3.88	1.91	3.98
2	LT Domestic	417.37	221.65	425.05
3	Commercial LT	61.18	18.34	56.77
4	Cottage and Small Industry	21.49	8.16	18.90
5	Public Lighting	3.96	1.95	3.62
6	Public Water-works	1.37	0.67	1.27
7	Irrigation and Agriculture	1.25	0.61	1.14
	LT Supply Sub Total	**510.50**	**253.29**	**510.73**
B	**HT Supply**			
1	Commercial	20.55	6.18	19.05
2	Medium Industry	4.36	1.65	3.81

Sl. No.	Category	FY 2020-21		
		Tariff Order 20.3.2020	Six Months Actual	Revised Proj.
3	Large Industry	8.12	3.08	7.91
4	Bulk Supply	85.41	42.00	87.75
5	Public Water-works	22.15	10.89	22.37
6	Irrigation and Agriculture	0.81	0.40	0.74
	HT Supply Sub Total	**141.40**	**64.20**	**141.62**
	Total	**651.91**	**317.49**	**652.32**

The actual energy sold by MSPDCL in FY 2019-20 was 649.03 MU. The Commission has approved the energy sales of 651.91 MU for FY 2020-21. Based on the actual sales of first six months (i.e. up to 30 September 2020), the revised projection of energy sales by MSPDCL for FY 2020-21 is 652.32 MU. Current year faced the pandemic due to COVID-19 and therefore, lockdown was imposed in whole country including Manipur. The lockdown restriction was imposed by Ministry of Home Affairs, Government of India vide order dated 24.03.2020 to contain COVID-19 pandemic and the similar lockdown was imposed in Manipur vide order No.9/6(1)/2020-H(pt), dated 20th April,2020 issued by Government of Manipur. So, it is well understood that commercial and industrial establishment faced severe problem due to lockdown and several units were closed during the period; hence, consumption was lower in the initial few months. Afterwards, orders were issued for partial relaxation of lockdown and the units had started their operation. In this condition, it is expected that whole year consumption will be impacted and hence some reduction in sales is expected compared to last year's sales. However, it is expected that the impact will not be much and close to last year's figure.

Considering the above consequences and past growth rates across the categories, assumptions are made for projecting the energy sales for FY 2020-21. Based on the same, energy sales growth rates have been assumed over the actual sales in FY 2019-20. The estimated consumer category wise growth rates are given below.

Consumer category	Growth rate
Kutir Jyoti	2.5%
Domestic	2.5%
Commercial	-8%
Public lighting LT	1%
Public waterworks LT	0.08%
Agriculture and irrigation LT	1%
Cottage and small industry	-10%
Commercial HT	-8%
Public waterworks HT	5%
Agriculture HT	1%

Consumer category	Growth rate
Medium Industry HT	-10%
Large Industry HT	-10%
Bulk Supply HT	2%

Accordingly, MSPDCL requests the Hon'ble Commission to approve the revised energy sales of **652.32 MU** for FY 2020-21

Commission Analysis:

The energy projections for FY 2020-21 is observed to have no growth expected over 2019-20 sales and has no trend relation expected. In fact, the overall H.T sales for 2020-21 is lesser than that of 2019-20. Based on this projection the revenue assessment gives a misleading financial scenario and the values are very much crude and don't represent any visible growth trend contemplated by the Licensee and preferring under performance.

Though the issue was raised and asked to furnish through additional information but the reply was inapt. **Since, it is almost at the fag-end of the year of 2020-21 now**, we may even wait for the actual sales figures and hence commission makes no change in the sales projected and approves with a terrible dissatisfaction on the energy projection submitted for FY 2020-21.

6.3 Distribution loss and Energy Balance for FY 2020-21

Projected distribution loss for FY 2020-21 is estimated based on the actual distribution loss achieved for FY 2019-20, and the loss trajectory approved by the Hon. Commission for the MYT control period as well as approved in last year's ARR order.

Based on the estimated sales for the current financial year, estimated interstate and intra states losses, power purchase requirement and surplus sales have been projected. The estimation of power procurement is done in the subsequent section.

The estimated distribution loss and energy balance for current financial year is as follows:

Table 6.2: Proposed Distribution Loss and Energy Balance for FY 2020-21

Sl. No.	Particulars	Calculation	FY 2020-21 Approved		FY 2020-21 Revised projn	
			%	MU	%	MU
1	**Energy Sales**					
	a) LT Sales	A1		510.5		**510.73**
	b) HT Sales at 11kV	A2		141.4		141.62
	c) HT Sales at 33kV	A3				
	c) EHT Sales	A4				
	Total Energy Sales	**A**		**651.91**		**652.35**
2	**Distribution Losses**					
	a) Distribution losses at 33kV level	B1				
	b) Distribution losses in HT 11kV and LT system combined	B2	24.50%	211.55	21.50%	178.67
	Total Distribution Losses	**B**		211.55		178.67
3	**Energy requirement at T-D boundary**					
	a) 11kV and LT energy requirement combined	C1 = (A1+A2)/(1-B)		863.46		831.02
	b) HT 33kV energy requirement	C2 = A3/(1-B1)				
	Total energy requirement at T-D boundary	**C = C1 + C2**		863.46		831.02
4	**Intra-State Transmission Losses**	**D**	8.50%	80.21	8.50%	77.20
5	Energy requirement of EHT consumers	E = A4/(1-D)				
6	Energy Requirement of Distribution system consumers after grossing up for Intra-State Transmission losses	F = C/(1-D)		943.67		908.22
	Outside State Sale/(Purchase)			37.69		116.43
7	**Energy Requirement at state periphery**	**G = E + F**		981.36		1024.65
8	**Inter-State Transmission Losses**	**H**	2.74%	27.65	2.60%	27.35
9	**Total Energy requirement**	**I = G/(1 - H)**		1009.01		1052.00
	Additional Purchase / (Sales)					
10	**Total Energy available**	**J**		**1009.01**		**1052.00**
11	**Surplus / (Deficit)**	**J - I**		0.0		0.00

MSPDCL has achieved the distribution loss of 22.05% in FY 2019-20. For the FY 2020-21, Hon. Commission has approved the distribution loss of 24.5%, which was 14.2% in the MYT order passed in 2018. MSPDCL proposes the distribution loss of 21.50% for FY 2020-21. MSPDCL requests Hon'ble Commission to consider the proposed distribution loss considering the high LT network and low density of consumers. The detailed reasoning is already given in the previous chapter.

Based on the projected sales to consumers, projected distribution loss, interstate (as per average loss data from NERLDC) and intra state losses (as approved), projected power purchase and the energy balance is calculated and the surplus power available for banking / surplus sale is estimated and MSPDCL request the Hon. Commission to approve the same. Considering the present six months' figure of banking and power exchange sale / purchase data, the same has been projected for the whole year. It is again important to mention that banking sale to other utilities have been made in summer months which will be used in winter months to meet the higher demand of the state's consumers.

Commission analysis

The Licensee didn't explain the basis in which the reduction of 3% in distribution losses from 24.50% to 21.50% is possible and what were its action plan as to how the network efficiency have been planned to improve to achieve at the loss reduction by 3% in FY 2020-21. If the distribution loss reduction was purely on account of higher Commercial losses, then there should have been drastic improvement in either sales quantum or perceptible raise in revenue collections and also visible increased Non-Tariff income needs to be seen as a thumb-rule check of the licensee's performance. But none of such parameter values are convincible to watch by the Commission and needs to corroborate this loss reduction as proposed with the final documentary proof in future. With the detailed discussion on MSPCL losses in SAC meeting, Commission feels it appropriate to keep transmission losses at 8.894% only instead of proposed 8.50%. As of now the Commission had to approve the distribution losses at the level of 21.19% for FY 2020-21 with a hope that this small loss reduction if achieved is a very encouraging trend in the last leg of the FY2020-21. However, if the Licensee fails achieve this proposed loss level by the end of FY 2020-21, they will have to bear the penalty for the under performance in the true-up finalization.

The energy balance based on quantum of power purchase as **considered by the Commission** is as follows:

Sl. No.	Energy Balance for FY 2020-21	MSPDCL (MU)	Commission (MU)
1	Energy from Eastern Region	0	0
2	Inter-State Loss on ER Energy (@ 1.95%)	0	0
3	ER Energy after Losses (1-2)	0	0
4	Energy from all NER allocated stations (incl. Loktak Free power)	**1052**	**1052.00**
5	Grossed up Energy handled - (3+4)	**1052.00**	**1052.00**
6	Inter-State Loss on NER Energy -- MU Percentage of Loss (%)	27.35 (2.60%)	27.04 (2.57%)
7	**Net energy at NERLDC (5 - 6)**	**1024.65**	**1024.96**
8	IEX Purchases	52.60	52.60

Sl. No.	Energy Balance for FY 2020-21	MSPDCL (MU)	Commission (MU)
9	Banked Energy adjustment (net figure)	7.57	7.57
10	UI adjust (Overdrawn-Underdrawn)	0	0
11	Less: Energy sold at IEX (OSS) -- (Outside State sale)	-176.60	-176.60
12	Net Solar Energy Injected to Grid (excl RTS)	0	0
13	Total generation injected to Grid from RTS	0	0
14	Net energy from State Own Small HEPs	0	0
15	**Total energy at State Periphery - (7 to 14)**	**908.22**	**908.53**
16	**State Transmission Loss (%)**	**8.50%**	**8.894%**
17	Intra-State Losses (State Losses) (MU)	**77.20**	**80.80**
18	**Gross Circle-wise Distribution Input**	**831.02**	**827.73**
19	**Distribution Loss (%)**	**21.50%**	**21.19%**
20	**Distribution Loss (MU)**	**178.67**	**175.37**
21	Retail Sales (LT & HT)	**652.35**	**652.36**

The Status of overall losses approved by the Commission within Manipur State as a ratio of state input:

Sl. No.	Overall Losses in Manipur State (2020-21)	Unit	Now Approved	Loss (%)
1	State Transmission Loss	MU	80.80	**8.894%**
2	Distribution Loss	MU	175.38	**21.19%**
3	**T & D Losses Total on Gross Input**	**MU**	**256.18**	**28.197%**
4	**Total Energy at State Periphery**	**MU**	**908.53**	**100%**
5	**Overall MSPDCL T&D Loss on Input energy**	**%**	**28.197%**	

With regard to the loss reduction, the commission wants the circle wise monthly sale details each month for monitoring and in this regard the following directive is being given in this aspect:

"The MSPDCL shall invariably submit the details to the Commission on 15th of each month following the month in which the quantum of energy input/received by each circle and also the quantum of energy sold in that month by each circle separately for each of the twelve (12) months promptly starting from April to March without fail. The information so furnished by the licensee would form the basis to arrive at the Distribution losses incurred by the MSPDCL in the entire year for truing-up purpose in future. Besides, the Licensee shall also submit the details of the quantity of Outside state sales achieved in each month starting from April to March for record along with the Circle wise sales information."

6.4 Energy Purchase

MSPDCL receives allocated power from various Central Generating Stations in North Eastern Region, viz., NEEPCO, NHPC, Tripura-Baramura and OTPC-Palatana, and NTPC Bongaigaon for power purchase under long term PPAs. The proposed power purchase for FY 2020-21has been projected in the MYT order based on the annual allocation of different power projects. MSPDCL is required to purchase the contracted quantum of power from different sources as projected in MYT order.

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 2020-21, actual power purchase during the first six months is considered along with the availability of plants in next six months. Further, based on the actual power procurement for FY 2019-20, year on year growth has been considered based on the planned allocation for projecting the power purchase for current financial year. Accordingly, the revised energy purchase has been proposed. The approved and proposed energy purchase for FY 2020-21 is detailed in the Table below:

Table 6.3: Energy Purchase for FY 2020-21 (MU)

Sl. No.	Source of Power	FY 2020-21		
		T.O 20.3.2020	Six months	Proposed APR
A	**CGS – NEEPCO**			
1	Kopili -I HEP	78.88		58.00
2	Kopili-II HEP	6.82		7.02
3	Khandong HEP	13.24		14.50
4	Ranganadi HEP	102.17	87.62	102.22
5	Doyang HEP	11.40	9.80	13.00
6	Assam GBPP	54.53	39.16	88.00
7	AGTPP	44.36	31.15	53.00
B	**CGS – NHPC**			
1	Loktak H E P Power	198.31	85.25	165.00
2	Loktak HEP- Free Power	78.02	33.52	55.20
C	**Others**			
1	Baramura GBPP Unit 4 & 5	78.52	20.86	62.20
2	OTPC Palatana	212.70	142.32	236.85
D	**New Plants**			
1	NTPC Bongaigaon Unit I to III	103.93	96.14	158.20
2	Para HEP	26.13	31.00	38.81
3	Renewable – Solar	0		
4	Renewable – Non-Solar	0		
	Sub -Total	**1009.01**	**576.82**	**1052.00**
5	**IEX Purchase**		**50.25**	**52.60**

Sl. No.	Source of Power	FY 2020-21		
		T.O 20.3.2020	Six months	Proposed APR
6	**IEX Sale**		**-32.94**	**-176.60**
7	**Banking Energy Sale/Injected**		**-153.69**	**-153.33**
8	**Banking Energy Drawn**		**7.20**	**160.90**
	Total Purchase	**1009.01**	**447.64**	**935.57**

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

MSPDCL requests the Hon'ble Commission to approve the proposed net power purchase quantum of 935.57MUfor FY 2020-21 after considering the outside sale quantum.

Commission Analysis:

The Licensee's explanation for the purchases/sell from IEX are due to non-availability of Hydel Power Plant, is not really convincing to the Commission as the licensee had sold more power in the form of IEX sales in 2020-21(i.e.,176.60MU) compared to the 2019-20 (95.97MU) despite the shortage of hydro power is not acceptable. If there was shortage, they could have limited their Purchases to the state consumers' needs itself and should have not procure more power to the tune of 176.60MU and then resorted to sale at known loss of Rs.1.59 per each unit sold relevant to FY 2020-21. The loss so sustained by the Licensee will not be allowed for true-up when it is taken up. It is also noticed that there are no details with regard to UI Under/Over energy drawals indicated in the purchases. Hence, the Licensee shall not claim such transaction related cost in the next while providing the actuals.

6.5 Power purchase cost

The power purchase cost has been estimated based on current billing data as received by MSPDCL from various stations. The cost of power purchase from CGSs includes the fixed and variable cost. The fixed cost component is fixed irrespective of the energy drawl. The variable cost component depends on the approved tariff by

CERC, actual energy drawl and the additional cost permitted due to change in fuel cost. The effective tariff of these sources is slightly varying from the approved figures as per submission made by CGSs. Hence, in order to estimate the Power Purchase cost for current financial year, appropriate station wise escalation in the effective tariff for FY 2019-20 is considered to estimate the power purchase cost for FY 2020-21. The escalation figures are used to obtain the required cost figure for FY 2020-21 as per current billing (Power purchase bills of September 2020 are attached as Annexure 2). The proposed power purchase cost is shown in the Table 6.4 below:

Table 6.4: Power Purchase Cost for FY 2020-21 (Total Cost in Rs. Cr, Avg. Tariff/

Sl. No.	Source of Power	Approved 2020-21		6 Months 2020-21	
		Total Cost	Avg. Rate	Total Cost	Avg. Rate
A	**CGS – NEEPCO**				
1	Kopili -I HEP	11.11	1.41		
2	Kopili-II HEP	1.19	1.74		
3	Khandong HEP	2.97	2.24		
4	Ranganadi HEP	26.82	2.63	16.10	1.84
5	Doyang HEP	6.04	5.30	4.38	4.46
6	Assam GBPP	24.16	4.43	16.61	4.24
7	AGTPP	17.65	3.98	12.15	3.90
B	**CGS – NHPC**				
1	Loktak HEP Purchased Power	71.29	3.59	28.99	3.40
2	Loktak HEP- Free Power			-	
C	**Others**				
1	Baramura GBPP Unit IV and V	24.70	3.15	6.28	3.01
2	OTPC Palatana	71.61	3.37	50.76	3.57
D	**New Plants**				
1	NTPC Bongaigaon Unit I to III	73.49	7.07	85.14	8.86
2	Monarchak Gas Based PP (NEEPCO)				
3	Kameng HEP Stage I				
4	Kameng HEP Stage II				
5	Para HEP	13.87	5.31	15.50	5.00
6	Tuirial HEP				
7	Lower Subansiri Stage I				
8	Lower Subansiri Stage II				

Sl. No.	Source of Power	Approved 2020-21		6 Months 2020-21		R
		Total Cost	Avg. Rate	Total Cost	Avg. Rate	
9	Renewable – Solar	7.90				
10	Renewable – Non Solar	9.87				
	Total Purchase	384.44	3.90	235.91	4.09	
11	IEX purchase			15.60	3.10	
12	IEX sale			-9.02	2.74	
13	Supplementary bills	13.835				
14	Late payment surcharge					
	Total	376.50	3.73	242.49	4.08	

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Commission Analysis:

The Commission has approved the power requirement and the power purchase cost during the FY 2020-21 is as follows:

Table-6.5: – Commission approved Power purchase cost for FY2020-21

Sl. No.	FY 2020-21 Source of Power	Energy MU	Total Cost (Rs Cr)	Avg Rate (Rs/kWh)
A	**CGS – NEEPCO**	**335.74**	**101.13**	**3.01**
1	Kopili -I HEP	58.00	6.67	1.15
2	Kopili-II HEP	7.02	1.00	1.42
3	Khandong HEP	14.50	2.47	1.70
4	Ranganadi HEP	102.22	24.80	2.43
5	Doyang HEP	13.00	6.51	5.01
6	Assam GBPP	88.00	36.78	4.18
7	AGTPP	53.00	25.18	4.75
B	**CGS – NHPC**	**220.20**	**58.58**	**2.66**
1	Loktak HEP Purchased Power	165.00	58.58	3.55
2	Loktak HEP- Free Power	55.20	0.00	0.00
C	**Others**	**299.05**	**93.56**	**3.13**
1	Baramura GBPP Unit IV and V	62.20	18.35	2.95
2	OTPC Palatana	236.85	75.21	3.18
D	**New Plants**	**197.01**	**144.16**	**7.32**
1	NTPC Bongaigaon Unit I to III	158.2	131.31	8.30
2	Para HEP	38.81	12.85	3.31
3	Renewable – Solar	-	-	
4	Renewable – Non-Solar	-	-	
	Sub -Total	**1052.00**	**397.43**	**3.78**
5	Net adjusted banking Energy	7.57	0	
6	IEX purchase	52.60	16.30	
7	IEX Sales	-176.60	-49.45	
8	Supplementary bills		20.00	
9	Late payment surcharge			
	Total Purchase cost approved	**935.57**	**384.27**	**4.11**

The Commission had not considered any Renewable Power Purchase Obligation (RPPO) while approving the above provisional power purchase cost as the period is almost coming to an end by the time the order is issued. As per the above energy purchases, MSPDCL had acquired about 116.43MU of surplus quantity from various stations costing about Rs.51.11 Crs, besides the IEX purchases of 52.60MU for a amount of Rs.16.30 Crs and reasons for such excess procurement was not explained. However, the MSPDCL shall purchase requisite REC certificates against each of Solar and Non-solar sources in order to comply with their RPPO obligation based on their various sources of power purchase actually transacted during FY 2020-21. The revenue received from Outside State sales is adjusted against the cost of power purchase as preferred by the Licensee instead of conventionally showing it under the revenue realization.

6.6 Transmission cost

The transmission charges include the charges paid to PGCIL, NERLDC, MSPCL and SLDC charges. The summary of transmission charges approved by Hon'ble Commission for current year along with the proposed charges is presented in the following table. PGCIL charges are consisting of different types of bills produced by PGCIL like POC bill 1, POC bill 3 etc. The charges have been increased significantly in FY 2019-20, as detailed given in the previous chapter. Therefore, considering the same, PGCIL charges have been estimated as 5% more than previous year's actual figure. However, this is very conservative estimate and likely to be more in case CERC approves the charges as per CERC Tariff Regulations for 2019-2024 periods. MSPCL charges have been considered as per approved figure for FY 2020-21. The same would be revised after finalization of annual account. The SLDC and NRLDC charges are considered as 5% higher on year on year basis on the actual charges for FY 2019-20.

Table 6.6: Transmission Charges for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	2020-21		Commission Approved
		T.O 20.03.2020	Proposed APR	
1	PGCIL Charges	61.53	79.11	79.11
2	MSPCL Charges	77.01	77.01	76.39
3	SLDC Charges	0.82	0.78	0.78
4	NERLDC Charges	7.04	0.67	0.67
	Total	**146.40**	**157.57**	**156.95**

MSPDCL requests the Hon'ble Commission to approve the proposed Transmission Charges of **Rs. 157.57 Crore** for FY 2020-21.

Commission Analysis:

It is surprising to find an altogether different figure from that was proposed in the MSPCL ARR submission for their transmission charges, though it is stated that the figures are adopted from the MSPCL ARR proposal. Since MSPCL ARR is examined and revised by Commission for FY2020-21 to be Rs.76.39Crs. Hence, all the transmission charges put together should be as Rs.156.95 Crs only (as indicated in Table above) after correcting the MSPCL revised Transmission

charges. <u>However, the Commission prefers to show Inter-State and Intra-State transmission charges separately and the same may be adopted by MSPDCL from next filing.</u>

6.7 Operation & Maintenance Expenses

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

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

Table 6.7: O&M Expenses for FY 2020-21 (Rs. Crore)

Sl. No	O&M Expenses	Approved (T.O 20.03.2020)	Revised for APR
1	Employee Expenses	99.69	88.38
2	R&M Expense	13.07	14.61
3	A&G Expense	9.71	9.55
	Total	**122.47**	**112.54**

The employee cost for FY 2020-21 has been proposed based on the actual expenses for FY 2019-20. The employee cost for 2020-21 has been considered based on actual data of FY 2020-21. The employee cost includes staff expenses plus payment to be made for new recruitment of 645 staffs (for 2 months) and estimated payment of arrears towards 7th pay commission wage revision.

Details of Employee Cost for FY 2020-21

Sl. No.	Details	Amount (Rs)
1.	Regular Staffs	75,96,29,395
2.	NEPLE (Work Charged) & PLS (Muster Roll)	
3.	Daily wages	6,72,58,112
4.	NPS Contribution	1,67,98,464
5.	Pay Arrear	36,36,618
6.	Medical Reimbursement	30,00,000
7.	New Recruitment (645 staff for 2 months)	3,34,91,580
Grand Total		**88,38,14,169**

In the case of R&M expenses, the projections have made with 5.72% escalation on the actual expenses incurred in FY 2019-20. Considering the growth of network, additional Rs 1 Crore has been projected under R&M expenses. For A&G expenses, escalation of 5.72% has been considered on expenses of FY 2019-20. Additionally, Rs 5 Crore is considered as special A&G expenses. The need for special A&G expenses is already recognized and approved by Hon'ble Commission in its earlier orders.

Accordingly, MSPDCL submits Hon'ble Commission to approve the proposed O&M costs of Rs. 112.54 Crore for FY 2020-21.

Commission Analysis:

In case of Employee cost, it was observed that in 2020-21 there was a total reduction in number of employees by 298 and out of which 284 Regular employees have retirement and 14 numbers from Muster roll & work charged employees. **The approval of government for fresh recruitment of 639 nos employee's cadre wise (not 645Nos) was not provided anywhere in the filing submission.** Commission by giving due weightage to the reduced employees strength besides considering their hike in the salary on account of 7th pay commission in 2019-20 pay the total amount needed assessed as Rs.73.89 crs only which also includes some buffer for 2 months new recruitments pay emoluments along with 8% escalation considered over the pay of 2019-20 for existing staff. The R&M expenses are approved at Rs.14.61 Crs and A&G Expenses at 9.55crs are allowed at the level as proposed by the Licensee.

Table: 6.8 - O&M Expenses approved by the Commission for FY2020-21

Sl. No.	Details of O&M Expenses	Now Approved (Rs.Crs)
1.	Employee Cost	**73.38**
2.	R&M Expenses	**14.61**
3.	A&G Expenses	**9.55**
4.	**Total O&M Expenses**	**97.54**

Thus, the total O&M Expenses provisionally approved for FY2020-21 is at Rs.97.54 Crs after Commission review.

6.8 Capitalisation

MSPDCL undertakes capital expenditure to meet the growing demand for electricity in the State and for system augmentation and strengthening. MSPDCL receives significant grant from the State Government for creation of capital asset, with the balance funding sourced from different loans. The capitalization is estimated based on status of various ongoing projects which have started in the past. These projects are Central Government projects which have been implemented in various states including Manipur.

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

Table 6.9: Capitalisation for FY 2020-21 (Rs. Crore)

Particulars	Actual FY 2019-20	projection FY 2020-21
Opening Balance of CWIP (A)	1115.17	990.26
Fresh Investment during the year (B)	132.29	188.58
Investment capitalised out of opening CWIP (C)		
Investment capitalised out of fresh investment (D)		
Total Capitalisation during the year (C+D)	257.20	777.90
Closing Balance of CWIP (A + B - C - D)	990.26	400.95

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

Name of the Project / Scheme	**Amount in Rs Crore**
RAPDRP-A	1.09
RAPDRP-B	13.42
IPDS	35.21
Interest	**5.60**
RGGVY XII Programme	8.97
DDUGJY	3.21
Saubhagya Scheme	121.08
Total	**188.58**

Proposed capitalization for FY 2020-21is detailed below.

Name of the Project / Scheme	**Amount in Rs Crore**
RAPDRP - A (13 town)	15.61
RAPDRP - B (2 town)	80.50
Saubhagya	229.02
IPDS	94.22
RGGVY XI	358.55
Total	**777.90**

MSPDCL requests the Hon’ble Commission to kindly approve the proposed capitalization of **Rs. 777.90 Crore** for FY 2020-21.

Commission Analysis:

In the present filing, the licensee had simply provided brief details of investments without indicating the Scheme-wise in-depth details of the schemes being undertaken to assess the need for their execution during FY 2020-21. The details of proposed new works to be taken up for execution are also suppressed. Without any scheme-wise detailed of investments, the Commission arbitrarily cannot give vague approval. Hence, it is presumed that if at all anything is needed for investments would be met from those grants acquired from Central/State Govt of Manipur but not from own resources of MSPDCL.

Consequently, the proposed asset capitalization amounting to Rs.188.58 Crs proposed now would not be allowed for claiming depreciation charge under Regulatory principles. **The Interest amount of Rs.5.60Crs indicated as scheme in the above Rs.188.58Crs can't be considered as a scheme item for capital investments.** The ambitious capitalisation of Rs.777.90 Crs in FY 2020-21 appears to be not convincing without any reasonable documentary proof in support of technical and financial closures of such projects for commission scrutiny. Hence, the same will not be considered for allowing depreciation as projected by the Licensee without verification with audited actuals.

6.9 Interest on Working Capital

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

Table 6.10: Interest on Working Capital for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	Approved (T.O 20.3.2020)	Revised For FY 2020-21
1	O&M expenses for 1 month	11.35	9.38
2	Maintenance spares @ 1% of GFA	10.69	18.47
3	Receivables equivalent to one month of expected revenue at prevailing tariffs	32.62	34.34
4	Consumer Security Deposit	15.63	15.63
	Total	**39.04**	**46.56**
5	SBAR as on 01.04.2018	13.45%	13.45%
6	**Interest on Working Capital**	**5.25**	**6.26**

While estimating the interest on working capital the proposed O&M expenses of one month, 1% of proposed GFA as maintenance spares, one month's receivable at existing tariff and accrued security deposit as on 1st April of respective year has been considered. Approved SBAR has been considered. MSPDCL requests the Hon'ble Commission to approve the IoWC of Rs 6.26 Crore for FY 2020-21.

Commission's Analysis

As seen from the submission, there was no reference of actual drawal of short-term loans during the year for working capital needs. The very purpose of allowing the interest on working capital is to reimburse the interest cost involved for running the day to day business of the utility. It is a known fact that MSPDCL is dependent upon the Government for its day to day funding in the form of grant-in-Aid towards meeting salaries and other expenses. Therefore, allowing interest on working capital on a notional basis would only burden the consumers and it has no actual financial impact on MSPDCL. It will therefore be disallowed from claiming for not having availed Short-term loans in any financial year henceforth. More so, the MSPDCL is having majority of consumers are having pre-paid meter and thereby there is no delay in revenue realization and in fact revenue is collected in advance and hence there is no need for borrowing short-term loans for working capital needs.

Thus, the Commission disapproves interest on working capital claim of Rs.6.26 Cr for FY 2020-21 made by MSPDCL.

6.10 Gross Fixed Assets and Depreciation

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

Table 6.11: Depreciation for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	Tariff Order 20.03.2020	Projected for APR
1	Opening GFA	762.28	1068.98
2	Addition during the Year	0.00	777.90
3	Retirement	0.00	0.00
4	Closing GFA	762.28	1846.87
5	Average GFA	762.28	1457.93
6	Average Rate of Depreciation	2.42%	2.42%
7	Depreciation	18.45	35.28
8	**10% of Gross Depreciation**	**1.84**	**3.53**

MSPDCL respectfully submits that since 10% of the capital cost of nearly every scheme is financed by MSPDCL, either through loan or equity, depreciation has been claimed equal to 10% of Gross Depreciation. As MSPDCL has been paying the principal of loan taken from REC, the depreciation claimed should be allowed to

MSPDCL. Otherwise, MSPDCL cannot recover the principal repayment amount.

MSPDCL requests the Hon'ble Commission to approve the Depreciation of **Rs. 3.53** for FY 2020-21.

Commission Analysis:

As per the content of this filing, it is construed that the funds utilized for such creation are fully spent from grants of government only. Therefore, the additions to GFA by transfer amounting to Rs.777.90 Crs as shown during the year is not eligible for depreciation under the regulatory accounting ambit.

The depreciation amount now approved by the Commission for FY 2020-21 without considering the capitalised addition made with the govt subsidy as follows:

Table 6.12 – Depreciation for FY 2020-21 by the Commission

Sl.No.	Particulars (2020-21)	Commission Approved
1	Opening GFA	762.28
2	Addition during the Year	0
3	Retirement	0
4	Closing GFA	762.28
5	Average GFA	762.28
6	Average Rate of Depreciation	2.42%
7	Depreciation	18.45
8	**10% of Gross Depreciation**	**1.84**

The Commission approves the nominal depreciation of **Rs.1.84 Crs** calculated at 10% of the Regulatory accounting based allowable depreciation for FY 2020-21. The actual depreciation allowable will be decided upon submission of Audited Accounts up to FY 2020-21.

6.11 Interest on Loan

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

Interest on Loan on ongoing projects for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	REC 1	REC 2	Total
1	Opening Loan	30.604	14.67	45.27
2	Addition during the year	0	0	0.00
3	Repayment during the year	3.988	0	3.99
4	Closing Loan	26.616	14.67	41.29
5	Average Loan	28.61	14.67	43.28
6	Rate of Interest	11.70%	10.20%	0.22
7	Interest & Finance Charges	4.14	2.00	6.14
8	Interest on CSD			0.00
	Total Interest	**4.14**	**2.00**	6.14

Additionally, under the Aatma Nirbhar Bharat scheme, MSPDCL has availed loan from PFC and REC (details are given in the next chapter). The interest for the same has been considered (loan sanction letters are attached as Annexure 3). Recently, MSPDCL got government approval of government guarantee to avail loan from REC for purchase of 2 lakh prepaid meter (Rs 178 Crore) and 130 WLED streetlight and 20 m high mast for district headquarters (Rs 15.67 Crore). The loan repayment period is 13 years with 3 years' moratorium and rate of interest is 10.75% (Government guarantee approval letters are attached as Annexure 4). The interest to be paid during the current year has been considered for FY 2020-21. As moratorium period is availed by MSPDCL as per loan terms, principal repayment is not considered. The same will be added in the respective year's interest when MSPDCL has to pay the same as per the loan repayment schedule. Total interest on loan is given below.

Table 6.13: Interest on Loan for FY 2020-21

(Rs. Crore)

Sl. No.	Particulars	Tariff Order 20.3.2020	Revised for APR	Commission approved
1	PFC/REC loan on ongoing projects	4.24	6.14	4.84
2	COVID loan under Aatma Nirbhar Bharat	0	3.41	2.65
3	Loan for purchase of Prepaid meters	0	3.26	2.39
4	Loan for LED street light & High Mast	0	0.29	0.291
	Grand Total	**4.24**	**13.10**	**10.09**

Commission Analysis:

The entire ARR filing submission is silent about the details of the amounts drawn against the above of two loans from REC and the purpose for which it is being utilised and from which specific cut-off date is not furnished. In the absence of non-furnishing of this vital information, the revised interest amount projected by the Licensee without making any comparison to that was already approved in the Tariff Order is not acceptable by the Commission and hence the interest on loan as was approved is modified to Rs.4.84 Crs against REC- & REC-2 Loans for FY 2020-21. Duly considering the other new loans obtained, the overall interest on Loan provisionally allowed for **Rs.10.09crs.** The actuals incurred will be considered at the time of truing up of the expenditure of FY 2020-21 later, upon their submission of true-up based on audited actuals.

6.12 Return on Equity

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

Commission Analysis:

The Commission provisionally approves the return on equity at Rs.1.56 Crs without considering the Income tax component and the same will be admitted depends upon the incidence of tax on actual basis.

6.13 Write-off of Bad Debts

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

Commission's analysis

The **Writing-off the Bad debts is not acceptable to the Commission**, for the reason that the Licensee had not made any assiduous efforts so far in collection of the pending dues accumulated to the tune of above Rs.567.40 Crs to the end of 31.03.2020 as was submitted in reply in SAC meeting held. This can be allowed only when Commission is thoroughly satisfied that despite the best of efforts the dues are proved to be non-recoverable and the onus of such proving rests with the MSPDCL.

6.14 Non-Tariff income

The Non-Tariff Income for FY 2019-20 has been 6.17 Crore. Over and above this 5%

growth has been considered for FY 2020-21 and accordingly the non-tariff income has been proposed as shown in the table below:

Table 6.14: Non-Tariff Income for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	Approved (T.O 20.03.2020)	Revised For APR
1	Non-Tariff Income	7.25	6.48

MSPDCL requests the Hon'ble Commission to approve the actual Non-Tariff Income of **Rs. 6.48 Crore** for FY 2020-21.

Commission's analysis

Keeping in view of the pending dues amount still to be recovered, the projected Non-Tariff Income towards recovery of revenue dues is not adequate and it shall be still at a higher level above Rs.6.48 Crs as projected. However, the Commission prefers to enhance it to Rs.6.55 Crs for FY 2020-21 but the licensee cannot make abnormal improvement in this juncture of ending of this financial year. **The projection should have been more at the time of filing itself.**

6.15 Aggregate Revenue Requirement

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

Table 6.15: Aggregate Revenue Requirement for FY 2020-21 (Rs. Crore)

Sl. No.	Particulars	App.	APR
		2020-21	2020-21
1	**Power Purchase or Energy Available (MU)**	1009.01	1052.00
2	**Sale of Power (MU)**	651.91	652.35
3	**Distribution Loss (%)**	24.50%	21.50%
A	**Expenditure**		
1	Cost of power purchase	376.51	428.71
2	Inter-State Transmission charges	61.53	79.11
3	Intra-state Transmission charges	77.01	77.01
4	SLDC & NERLDC Charges	7.86	1.45
5	Wheeling charges payable to other distribution licensee	0.00	0.00
6	O&M Expenses	**122.47**	**112.54**
	Employee Expenses	99.69	88.38
	R&M Expense	13.07	14.61
	A&G Expense	9.71	9.55
7	Depreciation	1.84	3.53
8	Advance against depreciation		--

Sl. No.	Particulars	App.	APR
		2020-21	2020-21
9	Interest on Loan	4.24	13.10
10	Interest on Working Capital		6.26
11	Bad Debt		3.00
	A: Total Cost	**651.45**	**724.71**
B	Add: RoE	1.56	1.95
	Add: Income Tax		0
	B: Total		1.95
	Total ARR : A+B	**653.01**	**726.66**
C	Less: Non-Tariff Income	7.25	6.48
	Less: Efficiency Gains	40.00	
	C: Total	47.25	6.48
	D: Aggregate Revenue Requirement (A+B-C)	**605.76**	**720.18**

The ARR approved for FY 2020-21 is Rs. 605.76 Crore. The proposed ARR for FY 2020-21 is Rs. 720.18 Crore. MSPDCL requests Hon'ble Commission to approve the same.

Commission Analysis:

The details of the ARR as has been approved by the Commission after thorough scrutiny of all the cost elements for FY 2020-21 is as follows:

Table 6.16: Aggregate Revenue Requirement for FY 2020-21 (Rs. Crore)

Sl.No.	Energy Particulars	MU
1	**Gross Energy Purchases**	1052.00
2	**Less: Inter State Transmission Losses @ 2.57%**	27.04
3	**Less: Outside State Sales (net)**	116.43
4	**Less: State Transmission Losses @ 8.894%**	80.80
5	**Less: Distribution Losses @ 21.19%**	175.37
6	**Retail Sale of Power**	652.36
A	**Approved Expenditure**	**Rs.Crs**
1	Cost of power purchase	384.27
2	Inter-State Transmission charges	79.11
3	Intra-state Transmission charges	76.39
4	SLDC & NERLDC Charges	1.45
5	**O&M Expenses**	**97.54**
	a) Employee Expenses	*73.38*
	b) R&M Expense	*14.61*
	c) A&G Expense	*9.55*
6	Depreciation	1.84
A	**Approved Expenditure**	**Rs.Crs**
7	Interest on Loan	10.09
8	Interest on Working Capital	0
9	Bad Debt	0

10	Return on Equity	1.56
	Gross ARR - approved	**652.25**
B	**Deductions**	**Rs.Crs**
	Less: Non-Tariff Income	6.48
	Less: Efficiency Gains	40.00
	B: Total deductions	**46.48**
	Aggregate Revenue Requirement (A-B)	**605.77**

6.16 Revenue from Sale of Power

The revenue from sale of power to consumers at the existing tariff is estimated as **Rs. 412.06 Crore for FY 2020-21**. The category-wise revenue realisation projection is as follows:

Table 6.17: Consumer Category-wise revenue projection for 2020-21 at existing tariff

Category of Consumers (FY 2020-21)	Sales (MU)	Revenue (Crs)
LT Supply		
1. Domestic (Kutir Jyoti)		
All Units	3.98	1.27
Sub Total (a)	3.98	1.27
2. Domestic (General)		
First 100 kWh	378.54	201.19
Next 100 kWh	35.14	25.40
Balance>200 kWh	11.38	10.25
Sub Total (b)	425.05	236.84
I - Total Domestic (I=a+b)	429.03	238.11
3. Commercial		
First 100 kWh	28.14	20.62
Next 100 kWh	7.87	6.34
Balance>200 kWh	20.76	18.96
II - Total Commercial LT	56.77	45.92
4. Public Lighting - LT	3.62	3.17
5. Public Water Supply-LT	1.27	1.16
6. Agri & Irrigation-LT	1.14	0.51
7. Small Industry-LT	18.90	9.82
Sub Total Other LT (III=4+5+6+7)	**24.93**	**14.66**
8. Commercial-HT	19.05	18.41
9. Public Water Supply-HT	22.37	21.02
10. Agri & Irrigation-HT	0.74	0.42
11. Medium Industry-HT	3.81	2.76
12. Large Industry-HT	7.91	7.21
13. Bulk Supply-HT	87.75	63.55
Sub Total HT sales (IV=8+9+10+11+12+13)	**141.62**	**113.36**
Grand Total(I+II+III+IV)	**652.35**	**412.06**

Apart from the revenue from sales to the consumers, MSPDCL receives revenue from sale of surplus power. The same has been already considered in the power purchase cost. Gross power purchase cost has been reduced by income of sale of surplus power to get the net power purchase cost. The rate of the sale/purchase has been considered as per existing rate of MSPDCL during FY 2020-21. Net revenue from sale of power at exchange is estimated as Rs. 33.14 Crore for FY 2020-21.

Commission Analysis:

Table 6.18: Total Revenue from all sales sources projected by MSPDCL for FY 2021-22 (Rs.Crs)

Particulars	Approved for 2020-21	Proposed For 2020-21
Net Sale of Surplus Energy (MU)	37.69	116.43
Average Tariff for Surplus energy sale (Rs./kWh)	3.80	2.847
Net Revenue from surplus Energy sale (Rs. Crs)	14.32	33.15
Revenue for Sale to Consumers (Rs Crore)	418.96	412.06
Total Revenue from Sales (Rs Crore)	**433.28**	**445.21**

The Outside State Sales are enhanced in revised projection by MSPDCL from 37.69 MU to 116.43 MU and the revenue so realization from such sales amounting to Rs.33.15Crs are adjusted against the Power purchase cost of 2020-21 by the Licensee, accordingly only the retail sales revenue realization is detailed below.

Table 6.19: Commission approved Revenue from Retail Sale for FY 2020-21

Sl. No	Consumer Category (2020-21)	Sales (MU)	Rate (Rs./kWh)	Revenue (Rs.Crs)
A	**LT Supply**			
1	Kutir Jyoti	3.98	3.20	1.27
2	Domestic	425.05	5.60	238.07
3	Commercial-LT	56.77	8.10	46.00
4	Small & Cottage Industry	18.90	5.19	9.82
5	Public Lighting-LT	3.62	8.76	3.17
6	Public Water Works LT	1.27	9.16	1.16
7	Agriculture & Irrigation LT	1.14	4.43	0.51
	LT Supply Sub Total	**510.73**	**5.873**	**300.00**
B	**HT Supply**			
8	Commercial-HT	19.05	10.52	20.05
8	Medium industry-HT	3.81	7.89	3.01
9	Large industry-HT	7.91	9.92	7.85
10	Bulk supply-HT	87.75	7.89	69.20
11	PWS HT	22.37	10.23	22.89
12	Agriculture HT	0.74	6.20	0.46
	HT Supply Sub Total	**141.63**	**8.005**	**123.46**
13	**Grant Total (LT & HT)**	**652.36**	**6.49**	**423.46**

The Commission considered revenue from retail sale at Rs. 423.46 Cr for FY 2020-21 after review. The main variation in amount is on account of adoption of wrong Power factor (PF) by MSPDCL for all HT sales at 0.98 instead of 0.90 categorically specified in the Electricity Supply Code 2013. and also due to not adopting the slab-wise rates for the energy sold under various slabs of Domestic and Non-Domestic/Commercial categories. This erroneous adoption of PF and slab-wise rates has resulted in suppressed revenue amount in the APR filing of 2020-21 by Rs.11.40Crs (i.e., Rs.423.46Crs-Rs.412.06Crs). In this regard, the Commission wants to know the actual power factor that is being adopted in their billing cycle in the place of 0.90 stipulated in the Electricity Supply Code.2013.

6.17 Revenue Gap

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

Table 6.20: Revenue Gap by MSPDCL for FY 2020-21 (Rs. Crore)

Sl. No	Particulars	FY 2020-21
1	Net ARR	720.18
2	Total Revenue	412.06
3	State Government Revenue Subsidy	216.00
4	**Unmet Revenue Gap**	**-92.13**

As can be seen from the above Table, the Unmet Revenue Gap for FY 2020-21 is Rs92.13 Crore. This gap has been estimated with the Government subsidy of Rs. 216 Crore for FY 2020-21, as proposed by MSPDCL in its last year's tariff petition. However, the government subsidy and ARR may change and accordingly the GAP will vary after completion of the present year. MSPDCL proposes to approve the gap as indicated above for FY 2020-21.

Commission Analysis:

Upon review all the cost element by the Commission for FY 2020-21 the final revenue gap is arrived at after considering the Government Subsidy amount as reflected in the Tariff Order Dt 20.03.2020 is indicated in detail which works-out to **Rs.33.69 Crs of surplus** noticed at present.

Table 6.21 : Revenue Gap derived by the Commission for FY 2020-21

Sl. No	Particulars (FY2020-21)	Amount
1	Net Aggr. Revenue Requirement	605.77
2	Total Retail sales Revenue **(Excl. Surplus energy sale yield of Rs.33.15Crs)**	423.46
3	**Revenue Gap before Govtt. subsidy**	**182.31**
4	State Government Revenue Subsidy	216.00
5	**Revenue Surplus → (4-3)**	**+ 33.69**

However, the actual revenue gap dependents upon

(a) the amount of revenue that is going to be realized, which again depends upon

(b) different category wise sales mix in quantity of actually sold including Outside state sales and it also revolves on

(c) amount of Government subsidy to be received by the end of the financial year FY 2020-21.

Thus, the real revenue gap to be occurred would be known at a later date which will be dealt with suitably during truing-up of the expenditure based on the finalized audited annual accounts statements.

7. Analysis of Aggregate Revenue Requirement for FY 2021-22

7.1 Background

The Petitioner humbly submits that the present ARR projections are based on actual expenses of FY 2019-20 and first six-month data available for FY 2020-21. The comparison of the projected expenses and revenue with the expenses and revenue considered by the Hon'ble Commission in the ARR for FY 2021-22 in the JERC tariff Order 1 of 2018 dated 12 March 2018 (henceforth referred as 'Approved' order with reference to FY 2021-22) has been presented. However, the Petitioner requests the Hon'ble Commission to review the expenses and revenue for FY 2021-22 based on the trend observed as per actual data. The values presented in the approved ARR order of 2018 were based on old data of that time and may not capture the present condition of the Petitioner. The approved ARR values have been revised appropriately by Hon'ble Commission in its corresponding orders passed in 2019 and 2020. Therefore, the revised figures along with actual figures can give the right direction for estimation of ARR values for FY 2021-22.

7.2 Energy Sales

MSPDCL caters to a diverse consumer mix comprising LT domestic, LT commercial, HT commercial, LT Industry, HT Industry, public lighting, public water works and agriculture consumers. LT Domestic category is the largest consumer category and comprises around 65% to 68% of the total sales of MSPDCL. The number of consumers in this category has increased rapidly in the recent years on account of the rural electrification schemes such as RGGVY, Saubhagya, etc. As explained earlier, the impact of COVID-19 has been considered for projecting sales of FY 2020-21, the same will also impact the energy sales for FY 2021-22. The category-wise energy sales as compared to the energy sales approved by the Hon'ble Commission for FY 2021-22are given in the Table below:

Table 7.1: Category-wise Energy Sales (MU) for FY 2021-22

Sl. No.	Category	FY 2021-22	
		MYT Approved	Revised Proj.
A	**LT Supply**		
1	Kutir Jyoti	17.00	4.08
2	LT Domestic	422.00	435.68
3	Commercial LT	53.00	57.90
4	Cottage and Small Industry	22.00	19.47

Sl. No.	Category	FY 2021-22	
		MYT Approved	Revised Proj.
5	Public Lighting	5.00	3.66
6	Public Water-works	2.00	1.28
7	Irrigation and Agriculture	1.25	1.15
	LT Supply Total	**522.25**	**523.22**
B	**HT Supply**		
1	Commercial	7.00	19.43
2	Medium Industry	5.00	3.92
3	Large Industry	6.00	8.15
4	Bulk Supply	133.00	89.51
5	Public Water-works	18.00	23.49
6	Irrigation and Agriculture	0.85	0.75
	HT Supply Total	**169.85**	**145.25**
	LT & HT Total	**692.10**	**668.47**

The Commission has approved the energy sales of 692.10 MU for FY 2021-22. Based on the actual sales of FY 2019-20 and projection for FY 2020-21, the revised projection of energy sales by MSPDCL for FY 2021-22 is 668.45 MU. Historical sales of last six years (FY 2014-15 to FY 2019-20) have been reviewed. The growth rate (CAGR basis) of various time periods has been calculated. The same is given below.

Category-wise Energy Sales growth rate (CAGR basis) (FY 2014-15 to FY 2019-20)

Consumer category	5 Year CAGR	3 Year CAGR	2Year CAGR	1 Year growth
KutirJyoti	-21.099%	-38.620%	-53.787%	9.000%
Domestic	11.195%	10.744%	11.000%	8.500%
Commercial LT	11.485%	12.847%	14.181%	10.150%
Public lighting LT	-4.021%	-6.962%	-1.181%	-1.000%
Public waterworks LT	-40.566%	-5.646%	0.803%	0.800%
Agriculture and irrigation LT	-14.078%	-1.194%	-6.465%	-1.000%
Cottage and small industry	2.981%	6.345%	4.443%	6.700%
Commercial HT				10.000%
Public waterworks HT		8.914%	3.651%	5.000%
Agriculture HT		-0.779%	-6.051%	-1.000%
Medium Industry HT	8.676%	7.759%	6.484%	6.000%
Large Industry HT	1.349%	22.173%	28.659%	18.300%
Bulk Supply HT	-2.343%	-3.832%	-10.177%	10.000%

Considering the present pandemic condition and recent trend, appropriate growth rate over projected sales of FY 2020-21 has been assumed to find out sales for FY 2021-22. There is no major increase / decrease foreseen in any of the consumer category; it is assumed that the growth in energy sales for FY 2020-21 and 2021-22 will be stable after pandemic is over and hence moderate sales growth has been assumed. Also, as the consumer base is not increasing and effect of pandemic is continuing, the historic growth rate cannot be applicable, especially in domestic category. Hence, with consideration of present condition, the consumer category wise growth rate assumed for FY 2021-22 is given below.

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

Accordingly, MSPDCL requests the Hon'ble Commission to approve the total energy sales of **668.45 MU** for FY 2021-22

Commission Analysis:

As seen from the energy projections for FY 2021-22, it is noted that L.T category total sales as a proportion to total sale has come down (i.e.,78.27%) when compared with LT Proportion in FY2020-21 (78.29%) though units wise the figure apparently appears more in number over 2020-21. This is due to decreasing trend adopted in LT Commercial sales in overall sales proportion. In fact, the MSPDCL get major share of revenues from Domestic and LT Commercial categories only and in the case of H.T category it earns more revenue from Large Industries, Bulk supply and lastly from HT Commercial only.

Hence, the projection should have been bit more realistic keeping in view the major revenue yielding categories as this projection may give undesired revenue estimation and finally derives unbelievable revenue gap. Though the issue was raised in additional information but it was inaptly replied.

Therefore, commission approves the modified sales quantum as 677.13MU for FY 2021-22 duly revising the projections of the Licensee to align with FY 2020-21 values are tabulated below:

Category Sales (MSPDCL)	2020-21		2021-22	
	MU	%	MU	%
Kutir Jyothi	3.98	0.61%	4.10	0.61%
Domestic	425.05	65.16%	441.28	65.17%
LT Comml	56.77	8.70%	59.00	8.71%
Cottage & Small Industrl	18.90	2.90%	19.47	2.88%
Public Lighting	3.62	0.55%	3.86	0.57%
LT - PWWorks	1.27	0.19%	1.29	0.19%
Irrigation & Agriculture	1.14	0.17%	1.15	0.17%
LT Total	**510.73**	**78.29%**	**530.15**	**78.29%**
HT Comml	19.05	2.92%	19.98	2.95%
HT Medium Industrl	3.81	0.58%	3.92	0.58%
HT Large Industrl	7.91	1.21%	8.15	1.20%
HT -Bulk Supply	87.75	13.45%	90.19	13.32%
HT - PWWorks	22.37	3.43%	23.99	3.54%
HT - Irrigation & Agriculture	0.74	0.11%	0.75	0.11%
HT Total	**141.63**	**21.71%**	**146.98**	**21.71%**
LT & HT Total	**652.36**	**100%**	**677.13**	**100%**

7.3 Distribution loss and Energy Balance

Petitioner's submission

Projected distribution loss for FY 2021-22 is estimated based on the actual distribution loss achieved for FY 2019-20, and the losses trajectory approved by the Hon. Commission for the MYT control period. Based on the estimated sales for the ensuing financial year, estimated interstate and intra states losses, power purchase requirement and surplus sales have been projected. The estimation of power procurement from different sources is done in the subsequent section. The estimated distribution loss and energy balance for ensuing financial year is as follows:

Table 7.2: Proposed Distribution Loss and Energy Balance for FY 2021-22

S.No.	Particulars	Calculation	FY 2021-22 Approved		FY 2021-22 Proposed	
1	**Energy Sales**					
	a) LT Sales	A1		529.25		**523.22**
	b) HT Sales at 11kV	A2		162.85		145.24
	c) HT Sales at 33kV	A3				
	c) EHT Sales	A4				
	Total Energy Sales	**A**		**692.10**		**668.45**
2	**Distribution Losses**					
	a) Distribution losses at 33kV	B1				

S.No.	Particulars	Calculation	FY 2021-22 Approved		FY 2021-22 Proposed	
	level					
	b) Distribution losses in HT, 11kV and LT system combined	B2	13.50%	108.01	**21.05%**	178.23
	Total Distribution Losses	**B**		108.01		178.23
3	**Energy requirement at T-D boundary**					
	a) 11kV and LT energy requirement combined	C1 = (A1+A2)/(1-B)		800.12		846.68
	b) HT 33kV energy requirement	C2 = A3/(1-B1)				
	Total energy requirement at T-D boundary	**C = C1 + C2**		800.12		846.68
4	**Intra-State Transmission Losses**	**D**	2.70%	22.20	**8.50%**	78.65
5	Energy requirement of EHT consumers	E = A4/(1-D)				
6	Energy Requirement of Distribution system consumers after grossing up for Intra-State Transmission losses	F = C/(1-D)		822.31		925.33
	Outside Sale/(Purchase)					
7	**Energy Requirement at state periphery**	**G = E + F**		822.31		925.33
8	**Inter-State Transmission Losses**	**H**	2.60%	21.951	**2.60%**	24.70
9	**Total Energy requirement**	**I = G/(1 - H)**		844.26		950.03
	Additional Purchase / (Sales)					
10	**Total Energy available**	**J**		**1185.56**		**1060.08**
11	**Surplus / (Deficit)**	**J - I**		332.42		107.19

MSPDCL has achieved the distribution loss of 22.05% in FY 2019-20. For the FY 2020-21, Hon'ble Commission has approved the distribution loss of 24.5%. MSPDCL proposes the distribution loss of 21.5% for FY 2020-21. In the MYT tariff order of 2018, Hon'ble Commission has approved the distribution loss of 13.5% for FY 2021-22. MSPDCL proposes the distribution loss of 21.05% for FY 2021-22. The current constraint situation of MSPDCL in reduction of distribution losses has been explained in the previous chapters. MSPDCL requests Hon'ble Commission to consider the proposed distribution loss considering the high LT network and low density of consumers.

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

Further, as per NERLDC website the inter-state schedule loss figures are available at <https://www.nerldc.org/ne-schedule-loss/>. As per the said data average NER loss is 2.57% for FY 2020-21. Further, as given in the above NERLDC website: "As per CERC Sharing of Inter-State Transmission Charges and Losses Regulations, 2020 w.e.f 02 Nov'2020, National Loss shall be declared by NLDC in the following link <https://posoco.in/side-menu-pages/applicable-transmission-losses/>".

Recently, Hon'ble CERC has notified CERC (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020 on 04th May, 2020; w.e.f. 1st November, 2020. As per clause (10) of these regulations, transmission losses for ISTS shall be calculated on all India average basis for each week, from Monday to Sunday. Recent data for week 23-11-2020 to 29-11-2020 shows ISTS loss of 3.89%. MSPDCL requests Hon'ble Commission to guide MSPDCL in this regard and suitable changes may be made in the approved data, if required, for the inter-state loss level.

Commission analysis

The Licensee didn't explain the reason for not showing any reduction and kept static the distribution losses from 2020-21 onwards at 21.50%, though licensee had shown a reduction in their distribution losses from 22.052% in 2019-20 to 21.50% in 2020-21. Does this signify that there is no scope in their hand in bringing down the distribution losses any more in the present trend? Hope this should not give scope to infer that the MSPDCL failed to achieve the targets earlier set by the Commission any more in future.

Keeping in view the slackness in handling the losses and the faltering noted in the revenue billing and arrear collection by the MSPDCL, the Commission don't want to interfere and now it is the duty of MSPDCL to achieve the distribution losses target now proposed by Commission at 20.50% for FY 2021-22. It is necessary that the Licensee should chalk out a constructive & strategic plan to curtail distribution losses in FY2021-22 and submit such action plan to the Commission with an assurance to achieve before end of 30th June 2021 and shall adhere to the same and show the desired results. However, If the Licensee fails achieve this proposed loss level by the end of FY 2021-22, they will have to bear the penalty for the under performance in the true-up finalization.

The loss reduction could be anything like arresting all kinds of Commercial losses for instant results or identify and prevent technical losses sadly there is no such proposal discussed or dealt in the ARR submission by Licensee. Let the losses adopted for NERLDC be at 2.57% loss percentage according to the data obtained from their website for FY 2020-21 and observe the trend for suitable modifications in future. After due deliberation in SAC meeting held, the Intra-state transmission losses were decided to be at 8.895% instead of 8.5% projected by Licensee.

Table 7.3: - Commission adopted Energy balance for quantum of purchase in 2021-22

Sl. No.	Energy Balance of MSPDCL for FY 2021-22	MU
1	Energy from Eastern Region	0
2	Inter-State Loss on ER Energy (@ 1.95%)	0
3	ER Energy after Losses (1-2)	0
4	Energy from NER stations (incl. Loktak Free power)	**1011.00**
5	Grossed up Energy handled - (3+4)	**1011.00**
6	Inter-State Loss on NER Energy **(@ 2.57%)**	25.983
7	**Net energy at NERLDC (5 - 6)**	**985.02**
8	IEX Purchases	0
9	Net Banked Energy adjustment	0
10	UI adjust (Overdrawn-Underdrawn)	0
11	Less: Energy sold at IEX - (Outside State sale)	**-50.13**
12	Net Solar Energy Injected to Grid (other than RTS)	0
13	Total generation injected to Grid from RTS	0
14	Net energy from State Own Small HEPs	0
15	**Total energy at State Periphery - (7 to 14)**	**934.89**
16	**Intra-State Losses (State Losses) @ 8.895%**	**83.16**
17	**Gross Circle-wise Distribution Input**	**851.73**
18	**Distribution Loss (MU) @ 20.50% of Item-17**	**174.60**
19	Retail Sales (LT & HT) -- (17-18)	**677.13**

The Status of overall losses within Manipur State as a ratio to total energy input at state periphery Commission adopted for FY 2021-22:

Overall Losses on Manipur State Input		2021-22	Loss (%)
1	State Transmission Loss	83.16	**8.895%**
2	Distribution Loss	174.60	**18.68%**
3	**T & D Losses Total**	**257.76**	**27.57%**
4	**Total Energy at State input periphery**	**934.89**	**100%**
5	Inter State Transmission Losses	**25.983**	**2.57%**
6	Overall total Losses incurred (3+5)	**283.743**	**28.07%**
7	**Overall energy purchased from all source**	**1011.00**	

The above losses shall be the celling limits and actuals shall be endeavored to be lower in reality by MSPDCL has the banked energy not less than 153MU which can be better utilized to curtain the NER Losses partially to the extent energy not need from NER region network on drawal from Central Generating Stations and simultaneously avoid purchases for various other costly Power Stations depending upon the situation to the tune of 59.92MU (i.e.,110.05-50.13), if adopted, it can reduce cost to a considerable extent.

The surplus energy as per MSPDCL filing will be 110.05MU but not 107.19MU as the figure is derived after applying 24.70MU inter-state losses on 1060.08MU of purchases and further reduction of surplus quantum to 107.19MU is incorrect though it was claimed as correct in its replies to additional information. Even the Inter-State Losses shall be treated as 2.33% of overall purchases of 1060.08MU but not at the percentage of 2.60% mentioned by MSPDCL.

The below table describes the ARR filed Energy balance figures in detail:

Sl. No.	Energy Balance Particulars (MSPDCL)	Unit	ARR 2021-22
1	Total Power Purchase CGS Scheduled	MU	1060.08
2	Inter-State transmission loss (NER) %	%	2.33%
3	Inter-State transmission loss in NER for FY 2021-22	MU	24.70
4	Net CGS Power purchase scheduled at State periphery (1-3)	MU	1035.38
5	IEX Purchase	MU	-
6	Return of Banked Energy	MU	-
7	Banking to outside utilities	MU	-
8	**Energy Sold to IEX (Outside State Sales)**	**MU**	**110.05**
9	Net Available Energy Scheduled	MU	925.33
10	UI Over drawal (+)	MU	0
11	UI Under drawal (-)	MU	0
12	Net power available at State Periphery	MU	925.33
13	Intra State Transmission Loss %	%	**8.50%**
14	Intra State Transmission Loss (MU)	MU	78.65
15	Net Retail Energy requirement at DISCOM periphery	MU	846.68
16	**State Retail Energy sales**	MU	**668.46**
17	Distribution Loss units	MU	178.22
18	**Distribution Losses w.r.t Energy Input**	**%**	**21.05%**

"The MSPDCL shall invariably submit the details to the Commission on 15th of each month following the month in which the quantum of energy input/received by each circle and also the quantum of energy sold in the relevant month by each circle separately for each of the twelve (12) months promptly starting

from April to March without fail. The information so furnished by the licensee would form the basis to arrive at the Distribution losses incurred by the MSPDCL in the entire year for truing-up purpose in future. Besides, the Licensee shall also submit the details of the quantity of Outside state sales achieved in each month starting from April to March for record along with the Circle wise sales information."

7.4 Energy Purchases

MSPDCL has been allocated power from various Central Generating Stations in North Eastern Region, viz., NEEPCO, NHPC, Tripura-Baramura and OTPC-Palatana, and NTPC Bongaigaon for power purchase under long term PPAs. The power purchase for FY 2021-22 was approved in the MYT order based on the annual allocation of different power projects. MSPDCL is required to purchase the contracted quantum of power from different sources as per present allocation.

However, the actual power purchase quantum is likely to vary based on the energy availability, hydrology, operational conditions of the plants etc. While estimating the power purchase for FY 2020-21, actual power purchase during the first six months is considered along with the availability of plants in next six months. Further, based on the actual power procurement for FY 2019-20, and FY 2020-21, power project wise planned allocations have been considered for projecting the power purchase for ensuing financial year. Accordingly, the revised energy purchase has been proposed. The approved and proposed energy purchase for FY 2021-22 is detailed in the Table below.

Table 7.4: Energy Purchase for FY 2021-22 by MSPDCL (MU)

Sl. No.	Source of Power	FY 2021-22	
		MYT Approved	Proposed
A	**CGS – NEEPCO**		
1	Kopili -I HEP	68.65	69.82
2	Kopili-II HEP	7.62	6.90
3	Khandong HEP	14.14	12.50
4	Ranganadi HEP	122.55	105.25
5	Doyang HEP	19.42	15.35
6	Assam GBPP	136.92	106.20
7	AGTPP	66.89	48.28
B	**CGS – NHPC**		
1	Loktak HEP Purchased Power	201.12	188.00
2	Loktak HEP- Free Power	79.13	55.90

Sl. No.	Source of Power	FY 2021-22	
		MYT Approved	Proposed
C	**Others**		
1	Baramura GBPP Unit IV and V	79.61	55.40
2	OTPC Palatana	230.63	232.60
D	**New Plants**		
1	NTPC Bongaigaon Unit I to III	158.88	131.08
2	Para HEP		30.30
3	Lower Subansiri Stage I		0.00
4	Lower Subansiri Stage II		0.00
5	Renewable – Solar		1.50
6	Renewable – Non-Solar		1.00
	Sub -Total	**1185.52**	1060.08
	Total Purchase	**1,185.52**	1,060.08

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

Apart from the above proposed sources for power procurement, MSPDCL requires purchase/sell surplus power from IEX in real time basis or required to use the banking facility to manage the deviation in power availability due to non-availability of power from hydro power plant due to hydrology failure or deviation in load requirement. Such deviations are real-time based on the demand and supply situations of DISCOM and CGSs, hence such deviations cannot be estimated for ensuing financial year at this time. MSPDCL proposes to manage such deviations within the available surplus power. The requirement of banking has been already explained and monthly variation as per actual data for FY 2019-20 is given in the previous chapter for reference.

MSPDCL requests the Hon'ble Commission to approve the proposed power purchase quantum of 1060.08 MU for FY 2021-22.

Commission Analysis:

The Commission feels that the power procurement from costly stations are to be reduced to the bare contracted minimum quantity and to buy more from cheaper power stations for minimising the major expenditure component of ARR which is the power purchase cost. Accordingly, the Commission has deduced the required quantity at 1011MU in such a way the surplus power available would be at the minimum level instead of 107.19 MU proposed by MSPDCL despite the 153.33MU of banked energy already in store.

During this year, the MSPDCL shall endeavour to fully utilise the banked energy

of 153.33MU in FY2020-21 to minimise the purchase quantity from outside sources and reduce the cost of power to a level lower than the total cost now decided by the Commission as it wants to give freehand to MSPDCL in procurement process. Incidentally, upon choosing the banked energy, the overall losses & power costs will tend to fall. The detailed power purchase cost so arrived by the Commission is also provided below.

7.5 Power Purchase Cost

The cost of power purchase from CGSs includes the fixed and variable cost. The fixed cost component is fixed irrespective of the energy drawl. The variable cost component depends on the approved tariff by CERC, actual energy drawl and the additional cost permitted due to change in fuel cost. The effective tariff of these sources is slightly varying from the MYT approved figures. Hence, in order to estimate the Power Purchase cost for ensuing financial year, 3% escalation in the effective tariff arrived from the purchase for FY 2020-21 is taken to estimate the power purchase cost for FY 2021-22. It may be noted that 3% escalation has been assumed for fixed cost component expressed in Rs Crore terms and for all other charges, 3% increase on effective tariff expressed in Rs./kWh has been considered. The proposed power purchase cost is shown in the Table below:

Table 7.3 (a): Power Purchase Cost for FY 2021-22 by MSPDCL

Sl. No.	Source of Power (FY 2021-22)	MYT Approved		Now Proposed	
		Total Cost	Avg. Rate	Total Cost	Avg. Rate
A	**CGS – NEEPCO**				
1	Kopili -I HEP	15.66	2.28	7.60	1.09
2	Kopili-II HEP	1.76	2.31	1.02	1.48
3	Khandong HEP	4.75	3.36	2.37	1.90
4	Ranganadi HEP	47.42	3.87	25.87	2.46
5	Doyang HEP	18.06	9.30	8.86	5.77
6	Assam GBPP	57.62	4.21	51.20	4.82
7	AGTPP	20.95	3.13	24.71	5.12
B	**CGS – NHPC**				
1	Loktak HEP Purchased Power	110.86	5.51	66.78	3.55
2	Loktak HEP- Free Power	0.00	0.00	0.00	0.00
C	**Others**				
1	Baramura GBPP Unit IV and V	16.13	2.03	17.38	3.14
2	OTPC Palatana	101.86	4.42	76.71	3.30
D	**New Plants**				
1	NTPC Bongaigaon Unit I to III	99.57	6.27	148.69	11.34
5	Para HEP			15.30	5.05
9	Renewable – Solar	25.87		0.68	4.50

Sl. No.	Source of Power (FY 2021-22)	MYT Approved		Now Proposed	
		Total Cost	Avg. Rate	Total Cost	Avg. Rate
10	Renewable – Non-Solar	2.13		0.55	5.50
	Total Purchase	**522.64**	4.41	**447.71**	4.22
11	UI Over/Under drawl				
12	IEX purchase				
13	Supplementary bills			30.00	
14	Late payment surcharge				
15	REC			13.92	
	Total	**522.64**	**4.41**	**491.63**	4.64

Apart from the total power purchase cost, MSPDCL is required to pay charges towards UI over-drawal and under-drawal, Purchase from IEX, supplementary bills etc. The charges for supplementary bills are considered as Rs 30.00 crore for FY 2021-22. **It is important to mention that for all CGS stations, tariff according to current tariff regime (FY 2019-20 to FY 2023-24) has not been finalised by CERC and billing is based on old tariff rate.** There is a possibility to get the revised bill as per revised CERC tariff orders after pronouncement of order by Hon'ble CERC for respective CGS stations. The implications of the same as per supplementary bill would be huge if we review the previous trend. Currently the supplementary bill is considered at vary conservative level. Hence, MSPDCL has proposed the total power purchase cost of Rs 491.63 Cr for FY 2021-22.

MSPDCL requests Hon'ble Commission to approve the proposed power purchase costs of **Rs 491.63 Cr for FY 2021-22**.

Commission Analysis:

The above purchase quantum projected would leave the MSPDCL with surplus energy of 110.05MU quantum for no perceptible advantage except it enhanced the overall cost by Rs.39.81Crs unnecessarily. The above excess amount is derived upon considering 21.05% distribution losses and <u>had it been taken as 20.50% the surplus quantum would be at 115.90MU</u>. The Commission didn't appreciate this kind of surplus transaction to be continued any more in future as the power purchase cost shall always be kept at minimum only to off-load monetary burden on consumers.

The Commission has re-worked the power requirement and its cost during the FY 2021-22 which is as follows:

Table – 7.5 – Commission approved Power purchase Qty & Cost in FY2021-22

Sl. No.	FY 2021-22	Share	Energy	Total Cost	Avg Rate
	Source of Power	MWs	MU	(Rs Cr)	(Rs/kWh)
A	**CGS – NEEPCO**	**93.90**	**355.07**	**116.26**	**3.27**
1	Kopili -I HEP	14.78	69.82	7.60	1.09
2	Kopili-II HEP	1.74	6.90	1.02	1.48
3	Khandong HEP	3.28	12.50	2.37	1.90
4	Ranganadi HEP	33.90	105.25	25.87	2.46
5	Doyang HEP	5.90	11.35	6.549	5.77
6	Assam GBPP	23.60	100.97	48.466	4.80
7	AGTPP	10.70	48.28	24.381	5.05
B	**CGS – NHPC**	**44.62**	**243.90**	**66.78**	**2.74**
1	Loktak HEP Purchased Power	22.31	188.00	66.78	3.55
2	Loktak HEP- Free Power	22.31	55.90	-	0.00
C	**Others**	**52.57**	**288.00**	**93.66**	**3.25**
1	Baramura GBPP Unit IV and V	10.50	55.40	17.396	3.14
2	OTPC Palatana	42.07	232.60	76.71	3.30
D	**New Plants**	**63.29**	**124.03**	**123.03**	**9.92**
1	NTPC Bongaigaon Unit I to III	56.30	96.08	108.95	11.34
2	Para HEP	6.99	25.45	12.85	5.05
3	Renewable – Solar		1.50	0.676	4.50
4	Renewable – Non-Solar		1.00	0.546	5.46
5	Supplementary bills			30.00	
6	Late payment surcharge			7.73	
	Sub -Total	**254.38**	**1011.00**	**437.87**	**4.33**
7	UI Over/Under drawl			-	
8	REC (Certificates)			24.93	
	Total	**254.38**	**1011.00**	**462.83**	**4.58**

The Power purchase cost was derived by the Commission to be Rs.462.83Crs for procuring 1011MU instead of 1060.08MU projected in ARR. The Commission had also considered the Renewable Power Purchase Obligation (RPO) into account as per the regulation in vogue. Accordingly, the MSPDCL shall purchase certificates amounting to Rs.24.93Crs after due consideration of procurements being made from Solar and Non-solar sources in order to comply with their RPO obligation at 10.5% each is arrived at during FY 2021-22. This amount is deduced after considering the meagre REC purchases projected from solar & Non-Solar. From the above energy quantum, the Licensee is left with 50.13MU of surplus energy instead of 110.05MU projected, provided they maintain their Distribution losses at 20.50% itself. <u>It is quite surprising to note as to why no proposal was contemplated by MSPDCL to reutilize the banked energy quantum of 153.33MU</u>

during FY 2020-21. ***The Commission feels it appropriate to invariably utilized the same during the FY 2021-22 to minimize the above derived power purchase cost still lower (i.e., to the extent of 153.33MU power cost) and thereby pass on the cost savings benefit to the consumers in the form of lower tariff instead of burdening them.*** ***Therefore, the final actual power cost shall have to be lower than what has been stated above which is an indicative figure arrived at without considering the banked quantity of 153.33MU and the surplus power availability is also kept at a minimum level instead of projected 110.05MU.***

7.6 Transmission Charges

The transmission charges include the charges paid to PGCIL, NERLDC, MSPCL and SLDC charges. The summary of transmission charges approved by Hon'ble Commission for ensuing financial year along with the proposed charges is presented in the following table. The PGCIL charges are projected with 5% escalation over last year's projected figure (revised projection for FY 2020-21, as given in the previous chapter). MSPCL charges for FY 2021-22 have been considered as proposed by MSPCL for ensuring year. The SLDC and NERLDC charges are considered as 5% higher on year on year basis on the revised projected charges for FY 2020-21.

Table 7.6: Transmission Charges for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	Approved	Proposed
1	PGCIL Charges	67.39	83.06
2	MSPCL Charges	106.69	101.93
3	SLDC Charges	0.83	0.82
4	NERLDC Charges		0.71
	Total	**174.89**	**186.51**

MSPDCL requests the Hon'ble Commission to approve the proposed Transmission Charges of Rs. 186.51Crore for FY FY2021-22.

Commission Analysis:

The Commission had now replaced the MSPCL charges with the approved MSPCL transmission ARR in their ARR for FY 2021-22 which is Rs.96.27 Crs instead of Rs.101.93 Crs as projected in their ARR submission. Accordingly, the revised & approved Inter & intra transmission charges by the Commission is as follows:

Table 7.7: Transmission Charges approved by Commission for 2021-22

(Rs.Crs)

Sl. No.	Particulars	Now Proposed in ARR	Commission approved
1	PGCIL Charges	83.06	83.06
2	MSPCL Charges	101.93	96.27
3	SLDC Charges	0.82	0.815
4	NERLDC Charges	0.71	0.705
	Total	**186.51**	**180.85**

7.7 Operation and Maintenance Expenses

Petitioner's submission

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

For the purpose of ARR for FY 2021-22, MSPDCL has proposed the O&M Expenses as follows:

Table 7.8: O&M Expenses for FY 2021-22 (Rs. Crore)

Sr. No	O&M Expenses	MYT Approved	Proposed
1	Employee Expenses	119.24	116.43
2	R&M Expense	8.59	19.44
3	A&G Expense	10.57	10.10
	Total	**138.40**	**145.97**

The employee expenses for 2021-22 have been projected based on the revised estimates of salary component for the current financial year with yearly increment in salary. Further, additional salary for 645 new recruited staff has been considered in FY 2021-22. Hence, the impact of newly added manpower in FY 2020-21 as well as FY 2021-22 is considered. Over and above, MSPDCL will have to pay the 7th pay wage revision arrears, which are also added to the employee expense. NPS contribution and medical reimbursement, to be given in FY 2021-22, are also projected. The details are given below.

Employee Expenses for FY 2021-22 (in Rs.) by MSPDCL

Sl. No.	Details	Amount (Rs)
1.	Regular Staffs	779,212,555
2.	NEPLE (Work Charged) & PLS (Muster Roll)	91,279,325
3.	Daily wages	67,258,112
4.	NPS Contribution	17,553,972

Sl. No.	Details	Amount (Rs)
5.	Pay Arrear	5,000,000
6.	Medical Reimbursement	3,000,000
7.	New Recruitment (645 staff)	200,949,480
	Grand Total	**883,814,169**

In the case of R&M and A&G expenses, the projections have made with 5.72% escalation on the expenses projected for FY 2020-21. Further as explained earlier, additional R&M expenses of 4 Crore have been considered for maintaining the lines, substations etc. Only incremental R&M cost will not cover the expenses required. additional A&G costs is required for prepaid metering software expenses, franchisee fees, Energy Audit, Vigilance, flying squad, consumer verification, energy police stations, SIM card, Modem, DCDR Server maintenance charges, Online vending charges, VPN Communication Charges etc.

Accordingly, MSPDCL submits Hon'ble Commission to approve the proposed O&M costs of **Rs. 145.97 Crore** for FY 2021-22

Commission Analysis:

On analysis, in the case of Employee cost, it is observed there was an increase of 639 number of regular employees with details of cadre wise recruitment break-up among Regular staff, Muster Roll and Work-charge employees and in addition no retirements indicated in 2021-22. Adopting these new recruitment details, giving due weightage for the increase in number of employees and their salary at a lower level than their seniors pay and duly consideration of the hike the employee cost approved at Rs.116.43 Crs as was proposed by MSPDCL. The R&M Expenses are approved at Rs.19.44 Crs and A&G Expense were allowed at the same level proposed by the Licensee.

Table: 7.9 - O&M Expenses approved by the Commission for 2021-22

Sl. No.	Details of O&M Expenses	Approved (Rs.Crs)
1.	Employee Cost	116.43
2.	R&M Expenses	19.44
3.	A&G Expenses	10.10
4.	**Total O&M Expenses**	**145.97**

Thus, the O&M Expenses approved by the Commission after the scrutiny are at **Rs.145.97 Crs for FY 2021-22.**

7.8 Capitalisation

MSPDCL undertakes capital expenditure to meet the growing demand for electricity in the State and for system augmentation and strengthening. MSPDCL receives significant grant from the State Government for creation of capital asset, with the balance funding sourced from loans. The details of actual capitalization achieved in FY 2019-20 and proposed capitalisation for FY 2020-21 and FY 2021-22, is shown in the Table below:

Table 7.10: Capitalization for FY 2021-22 (Rs. Crore)

Particulars	2019-20	2020-21	2021-22
Opening Balance of CWIP (A)	1115.17	990.26	400.95
Fresh Investment during the year (B)	132.29	188.58	----
Investment capitalised out of opening CWIP (C)	257.20	777.90	275.77
Investment capitalised out of fresh investment (D)			
Total Capitalisation during the year (C+D)	257.20	777.90	275.77
Closing Balance of CWIP (A + B - C - D)	990.26	400.95	125.18

MSPDCL requests the Hon'ble Commission to kindly approve the proposed capitalization of **Rs 275.77 Crore** for FY 2021-22.

The capitalization is considered for the following projects during FY 2021-22.

Name of the project	Amount in Rs Crs
RGGVY XII Plan Programme	219.72
DDUGJY	54.69
Civil work	1.36
Total	**275.77**

Commission Analysis:

As per the content of present filing, the licensee had proposed nil investments for FY 2021-22 and briefly indicated proposed works capitalisation in FY 2021-22. Hence, it is construed that no fresh capital expenditure is required now and it is presumed that if at all anything is needed would be to be spent from those grants acquired from grant source/Govtt of Manipur but not the funds of MSPDCL.

Consequently, the capitalization of assets worth Rs.275.77 Crs out of the fresh works undertaken will not be allowed for charging depreciation element under regulatory accounting as they were treated as not created from MSPDCL own funds.

Besides, the details of amount collected from consumer contributions possessed by the MSPDCL from the inception of the corporation in 2014 shall be submitted to the Commission each year-wise by end of June 2021.

7.9 Interest on Working Capital

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

Table 7.11: Interest on Working Capital for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	Approved	Proposed
1	O&M expenses for 1 month	11.53	12.16
2	Maintenance spares @ 1% of GFA	17.97	21.23
3	Receivables equivalent to one month of expected revenue at prevailing tariffs	28.38	44.19
4	Consumer Security Deposit		15.80
	Total	57.88	61.78
5	SBAR as approved	14.05	13.45%
	Interest on Working Capital	**8.13**	**8.31**

While estimating the interest on working capital the proposed O&M expenses of one month, 1% of proposed GFA as maintenance spares, one month's receivable at existing tariff and accrued security deposit as on 1 April of respective year has been considered. MSPDCL requests Hon'ble Commission to approve the IoWC of **Rs 8.31 Crore** for FY 2021-22.

Commission's Analysis

As seen from the submission, there were no mention as to the actually availing of any short-term loans for working capital needs. The very purpose of allowing the interest on working capital as a normative is only to reimburse the interest cost involved for running the day to day business of the utility on normative basis instead of going deeper into actuals. But, the MSPDCL is fully dependent upon the Government of Manipur for its day to day funding needs in the form of Grant-in-Aid towards meeting salaries and any other relevant expenses. Therefore, allowing interest on working capital on a notional basis though not actually incurred would only burden the consumers and its withdrawal now has no actual financial impact on MSPDCL. As a matter of principle, it will be disallowed from the claim for having not availing any short-term loans in the financial year henceforward. In Manipur, there are more in number of pre-paid meters, whose revenue will be collected in advance in reality and there is no compelling/pressing need for borrowing short-term loans for utility to run during currency of financial year.

Thus, the Commission totally disallows Interest on working capital amount claimed by MSPDCL for FY 2021-22.

7.10 Gross Fixed Assets & Depreciation

The closing balance of Gross Fixed Asset (GFA) for FY 2020-21, as derived in earlier chapter, has been considered as the opening balance of GFA for FY 2021-22. The depreciation has been computed under straight-line Method, at the rates specified in the JERC (MYT) Regulations, 2014, on the GFA in use at the beginning of the year and addition in assets during FY 2021-22. The Expenses towards depreciation for FY 2021-22 is shown in the Table below:

Table 7.12: Depreciation for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	MYT Approved	Projected
1	Opening GFA	1695.65	1846.87
2	Addition during the Year	294.33	275.77
3	Retirement	0	0
4	Closing GFA	1989.98	2122.64
5	Average GFA	1842.82	1984.76
6	Average Rate of Depreciation	2.42%	2.42%
7	Depreciation	44.59	48.03
8	**10% of Gross Depreciation**	0.45	**4.80**

MSPDCL respectfully submits that since 10% of the capital cost of every scheme is financed by MSPDCL, either through loan or equity, depreciation has been claimed equal to 10% of Gross Depreciation. MSPDCL is presently paying principal repayment to financial institutions; hence, the depreciation amount as mentioned above will help MSPDCL to repay the principal.

MSPDCL requests the Hon'ble Commission to approve the Depreciation of **Rs. 4.80 Crore**, for FY 2021-22.

Commission Analysis:

As per the content of this filing, it is construed that the funds utilized for creation are fully spent from grants of government only. Therefore, the proposed transfer to GFA amounting to Rs.275.77 Crs shown during the year is not eligible for depreciation charge under regulatory accounting ambit.

The depreciation amount now approved by the Commission for FY 2021-22 is without considering the capital addition made with the Grants/subsidies if any as follows:

Table 7.13 – Depreciation for FY 2021-22 approved by the Commission

Sl.No.	Particulars (2021-22)	Amount (Crs)
1	Opening GFA	762.28
2	Addition during the Year	0
3	Retirement	0
4	Closing GFA	762.28
5	Average GFA	762.28
6	Average Rate of Depreciation	2.42%
7	Depreciation	18.45
8	**10% of Gross Depreciation**	**1.84**

The Commission approves the nominal depreciation of Rs.1.84 Crs calculated at 10% of the Regulatory accounting based allowable depreciation for FY 2021-22.

7.11 Interest on Loan

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

Table 7.14: Interest on Loan for FY 2021-22 (Rs.Crs)

Sl. No.	Particulars	REC 1	REC 2	Total
	Opening Loan	26.616	14.67	41.29
	Addition during the year	0	0	0.00
	Repayment during the year	3.988	0	3.99
	Closing Loan	22.628	14.67	37.30
	Average Loan	24.622	14.67	39.29
	Rate of Interest	11.70%	10.20%	0.22
	Interest & Finance Charges	2.88	1.496	4.38
	Interest on CSD			0.00
	Total Interest	**2.88**	**1.50**	**4.38**

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

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

Additionally, another two projects of purchase of 2 lakh pre-paid meter and high mast lights in district headquarters have received government approval for government guarantee for loan (details are given in the previous chapter). The interest payment for the same has been also considered for FY 2021-22. The details are given below

Table 7.15: Interest on Loan for FY 2021-22 by MSPDCL (Rs. Crore)

Sl. No.	Particulars	Total
1	PFC/REC loan on ongoing projects	4.38
2	COVID loan under Aatma Nirbhar Bharat	10.59
3	Loan for purchase of Prepaid meters	19.58
4	Loan for LED street light & High Mast	1.72
	Total	**36.27**

MSPDCL requests Hon'ble Commission to kindly approve the interest on loan as **Rs. 36.27 Crore** for FY 2021-22.

Commission Analysis:

The MSPDCL has obtained various loans in addition to the existing REC Loan-1 & 2 which was existing from 2018-19 onwards. Again, it had obtained three (3) other FRESH loans for various purposes for which it has enclosed the relevant loan agreement documents for verification. Considering all those loans and their applicable interest rates the interest amounts approved without considering Tax component (in the absence of those details) by the Commission for

FY 2021-22 is as follows:

Table 7.16: Interest on Loan for FY 2021-22 by Commission (Rs.Crs)

Sl. No.	Particulars	Total
1	PFC/REC loan on ongoing projects	4.38
2	COVID loan under Aatma Nirbhar Bharat	10.59
3	Loan for purchase of Prepaid meters	19.14
4	Loan for LED street light & High Mast	1.68
	Total	**35.79**

However, the above interest amount will be scrutinised with the actuals to be incurred based on their audited accounts for FY2021-22 in due course.

7.12 Return on Equity

MSPDCL has considered the Return on Equity (RoE) for FY 2020-21 and FY 2021-22 same as approved by the Hon'ble Commission in its Tariff Order. MSPDCL requests the Hon'ble Commission to approve the Return on Equity of **Rs. 1.95 Crore** for FY 2021-22.

Commission Analysis:

The Commission provisionally approves the return on equity at Rs.1.56 crs for FY 2021-22 without considering the Income tax component and the same will be admitted depends upon the incidence of tax on actual basis.

7.13 Write off of Bad Debts

MSPDCL has considered Rs.3 crore as Write-off of Bad Debts for FY 2021-22, and requests the Hon'ble Commission to approve the same.

Commission's analysis

The writing-off the bad debts is unacceptable to the Commission, for the reason that the Licensee had not made any assiduous efforts so far in recovery of the huge pending dues accumulated to the tune of above Rs.490Crs to the end of 31.03.2018 as was submitted in reply to Directive No.5. Besides, the licensee appears to be tight lipped to disclose any detailed constructive in response on this and Commission is still in dark about their latest revenue arrears status.

Moreover, the Commission has specifically made a cut of Rs.40Crs under Internal Efficiency from their Gross ARR keeping in view the Arrears accumulation to undesired level. Knowing this fact, the licensee shall not prefer

to suggest for writing-off Rs.3crs out of the huge outstanding of Rs.495 Crs as on 31.03.2018 is quite surprising and unexpected by the Commission.

Under these circumstances, this claim cannot be allowed now and it will be permitted only when Commission is thoroughly satisfied that despite the best of efforts the dues were proved to be irrecoverable in future. The onus of proving this rests with the Licensee.

7.14 Non-Tariff Income

Petitioner's submission

The Non-Tariff Income for FY 2019-20 has been considered and 5% growth rate has been considered for FY 2020-21 and 2021-22 and accordingly the non-tariff income has been proposed as shown in the table below:

Table 7.17: Non-Tariff Income for FY 2021-22 (Rs. Crore)

Sr.No.	Particulars	MYT Approved	Proposed
1	Non-Tariff Income	0.45	6.80

MSPDCL requests the Hon'ble Commission to approve the **actual** Non-Tariff Income of **Rs 6.80 Crore** for FY 2021-22.

Commission's Analysis

Keeping in view of the pending dues amount still to be recovered, the. Projected Non-Tariff Income towards recovery of revenue dues is not adequate and it shall be still at a higher level than at Rs.6.80 Crs as projected. However, the Commission prefers to enhance it higher figure for FY 2021-22 but the licensee needs to put in best of efforts to levy more of these charges in the process of recovery of pending dues during this financial year for financial viability of the organisation.

Thus, the Commission approves the Non-tariff income of Rs.6.80. Crore for FY 2021-22 though licensee prematurely claims it as actual NTI for the ensuing year.

7.15 Aggregate Revenue Requirement

Petitioner's Submission:

Based on the above component-wise expenses, the Aggregate Revenue

Requirement computed for FY 2021-22 by MSPDCL against the figures approved by the Commission in the Tariff Order of 2018, is given in the Table below:

Table 7.18: Aggregate Revenue Requirement for FY 2021-22

(Rs. Crore)

	Particulars	MYT Approved	Proposed
1	**Power Purchase or Energy Available (MU)**	1185.86	1060.08
2	**Sale of Power (MU)**	692.10	668.45
3	**Distribution Loss (%)**	13.5%	21.05%
A	**Expenditure**		
1	Cost of power purchase	522.64	491.63
2	Inter-State Transmission charges	67.39	83.06
3	Intra-state Transmission charges	106.67	101.93
4	SLDC & NERLDC Charges	0.83	1.52
5	Wheeling charges payable to other distribution licensee		0.00
6	O&M Expenses	138.40	145.97
	Employee Expenses	119.24	**116.43**
	R&M Expense	8.59	**19.44**
	A&G Expense	10.57	**10.10**
7	Depreciation	0.45	4.80
8	Advance against depreciation	0.00	0.00
9	Interest on Loan	3.13	36.27
10	Interest on Working Capital	8.13	8.31
11	Bad Debt	3.00	3.00
	A: Total Cost	**850.64**	**876.49**
B	Add: RoE	**1.95**	1.95
	Add: Income Tax	**0**	0
	B: Total	**1.95**	1.95
	Total ARR : A+B	**852.59**	**878.44**
C	Less: Non-Tariff Income	0.45	6.80
	Income from other than licensed business	0.00	0.00
	C: Total	0.45	6.80
	D: Aggregate Revenue Requirement (A+B-C)	**852.14**	**871.64**

The ARR approved for FY 2021-22 is Rs. 852.14 Crore. The proposed ARR for FY 2021-22 is Rs 871.64 Crore. MSPDCL requests Hon'ble Commission to approve the same.

Commission's Analysis

Based on the approved costs Aggregate Revenue Requirement for FY 2021-22 is approved as detailed below:

Table 7.19: Energy balance & Approved ARR by the Commission for 2021-22

Sl.No	Energy Particulars for 2021-22	MU
1	**Gross Energy Purchases**	1011.00
2	**Less: Inter State Transmission Losses**	25.98
3	**Less: Outside State Sales**	50.13
4	**Less: State Transmission Losses @ 8.895%**	83.16
5	**Less: Distribution Losses**	174.60
6	**Retail Sale of Power**	677.13
7	**Distribution Loss (%)**	20.50%
A	**Approved Expenditure (FY 2021-22)**	**Rs.Crs**
1	Cost of power purchase	462.83
2	Inter-State Transmission charges	83.06
3	Intra-state Transmission charges	96.27
4	SLDC & NERLDC Charges	1.52
5	**O&M Expenses**	**145.97**
	i) Employee Expenses	*116.43*
	ii) R&M Expense	*19.44*
	iii) A&G Expense	*10.10*
6	Depreciation	1.84
7	Interest on Loan	35.79
8	Interest on Working Capital	--
9	Bad Debt	--
10	Return on Equity	1.56
	Gross ARR approved - (A)	**828.84**
B	Less: Non-Tariff Income	6.80
	Less: Efficiency Gains	16.00
	Total Deductions - (B)	**22.80**
	Net Aggregate Revenue Requirement (A-B)	**806.04**

Commission approves net ARR at **Rs.806.04 Crore for FY 2021-22** as against Rs.871.64 Crore projected by MSPDCL.

7.16 Revenue from sale of Power

Petitioner's submission

The revenue from sale of power to consumers at the existing tariff is estimated as **Rs.421.68 Crore for FY 2021-22**. The category-wise revenue realization projection is as follows:

Category-wise revenue projection at existing tariff for 2021-22 (Rs.Crs)

Sl. No.	Category of Consumers	Proposed Energy Sales (MU)	Proposed Revenue (Crs)
	LT Supply		
1	Domestic (KutirJyoti)		
	All Units	4.08	1.29
	Sub Total (a)	**4.08**	**1.29**
2	Domestic (General)		
	First 100 kWh	383.14	203.13
	Next 100 kWh	36.03	25.89
	Balance>200 kWh	16.51	13.54
	Sub Total (b)	**435.68**	**242.56**
	Total Domestic (I=a+b)	**439.76**	**243.85**
3	Commercial		
	First 100 kWh	28.18	20.65
	Next 100 kWh	7.97	6.4
	Balance>200 kWh	21.76	19.71
	Total Commercial LT (II)	**57.9**	**46.76**
4	Public Lighting – LT	3.66	3.2
5	Public Water Supply-LT	1.28	1.17
6	Agri& Irrigation-LT	1.15	0.51
7	Small Industry-LT	19.47	10.07
	Sub Total Other LT (III=4+5+6+7)	**25.55**	**14.95**
8	Commercial-HT	19.43	18.73
9	Public Water Supply-HT	23.49	21.98
10	Agri& Irrigation-HT	0.75	0.43
11	Medium Industry-HT	3.92	2.84
12	Large Industry-HT	8.15	7.38
13	Bulk Supply-HT	89.51	64.76
	Sub HT Total IV (8+9+10+11+12+13)	**145.24**	**116.12**
	Grand Total (I+II+III+IV)	**668.45**	**421.68**

Apart from the revenue from sales to the consumers, MSPDCL received revenue from outside state sale of surplus power. The revenue from sale of surplus power FY 2021-22 is as follows:

Total Revenue from sales including surplus energy by MSPDCL in 2021-22

(Rs. Crs)

Details	Approved for 2021-22	Proposed for 2021-22
Sale of Surplus Power (MU)	332.17	107.19 (*)
Average Tariff for Sale of Surplus Power	NA	2.34
Revenue from sale of surplus power (Rs. Crs)	NA	25.08
Sales Revenue existing tariff (LT &HT) (Rs Crs)	NA	421.68
Total Revenue from Sales (Rs Crore)	**NA**	**446.76**

Further, the revenue from **sale of surplus power** is estimated as **Rs. 25.08 Crore** for FY 2021-22. Accordingly, MSPDCL requests the Hon’ble Commission to approve the total revenue of **Rs 446.76 Crore** for FY 2021-22.

The Commission disagrees with the figure 107.19MU as it shall be at 110.05MU in reality as per the ARR energy balance submission.

Commission's Analysis

Revenue realization estimated for FY 2021-22 by Commission at existing tariff

Table 7.20: Revenue Realisable at existing tariff as per Commission in FY 2021-22

Sl. No.	Category (2021-22)	Energy Sales	Revenue (Existing Tariff)	(CPU) Avg.Rev
A	**LT Supply**	**MU**	**Rs.Crs**	**Rs./Unit**
1	Kutir Jyoti	4.10	1.30	3.16
2	LT Domestic	441.28	244.99	5.55
3	Commercial LT	59.00	47.51	8.05
4	LT Industries Micro/ Small	19.47	10.07	5.17
5	Public Lighting	3.86	3.38	8.75
6	Public Water-Works	1.29	1.18	9.14
7	Irrigation and Agriculture	1.15	0.51	4.43
	LT Supply Sub Total	**530.15**	**308.93**	**5.83**
B	**HT Supply**			
1	Commercial	19.98	20.89	10.46
2	Medium Industry	3.92	3.09	7.88
3	Large Industry	8.15	8.04	9.86
4	Bulk Supply	90.19	71.01	7.87
5	Public Water-Works	23.99	24.40	10.17
6	Irrigation and Agriculture	0.75	0.47	6.21
	HT Supply Sub Total	**146.98**	**127.89**	**8.70**
	TOTAL (LT & HT)	**677.13**	**436.82**	**6.45**
7	Outside State Sales	54.15	12.67	**2.34**
8	**Total Revenue from all sources**	**731.28**	**449.49**	**6.15**

7.17 Revenue Gap

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

Table 7.21: Final Revenue Gap for FY 2021-22 after subsidy by MSPDCL

(Rs. Crore)

Sl. No	Particulars	FY 2021-22
1	Net ARR	871.64
2	Total Revenue	446.76
3	State Government Revenue Subsidy	316.34
4	**Unmet Revenue Gap**	**108.54**

For FY2021-22, the unmet revenue Gap is estimated at Rs. 108.54 Crore at existing tariffs with Government subsidy support of Rs. 316.34 Crore. MSPDCL proposes to recover the GAP by way of tariff hike for FY 2021-22.

Commission Analysis:

As per the Commission, the Revenue Gap for FY 2021-22 after considering the possible revenue subsidy from Government is shown below:

Table 7.22: Revenue Gap after subsidy for FY 2021-22 by the Commission

Rs.Crores

Sl. No	Particulars	FY 2021-22
1	Net Aggregate Revenue Requirement	806.04
2	Revenue expected from existing tariff	436.82
3	Revenue from sale of surplus power quantum	12.67
4	Total expected Revenue (2+3)	449.49
5	**Unmet Revenue Gap (1-4)**	**356.56**
6	**State Government Revenue Subsidy (derived)**	**285.38**
7	**Gap to be covered by Revision of Tariff (5-6)**	**71.18**

7.18 MSPDCL proposal for Tariff Hike to recover the Gap of FY 2021-22.

Thus, MSPDCL has estimated that it will face a Revenue Gap of Rs. 424.16 Cr in FY 2021-22 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 2021-22 by the MSPDCL is as shown in the Table Below:

Table 7.23: Avg. Cost of Supply & Avg. Billing Revenue for FY 2021-22 by MSPDCL

Sl.No.	Particulars	Units	FY2021-22
1	Net Revenue Requirement	Rs. Crs	871.64
2	Revenue from existing tariff	Rs. Crs	421.68
3	Revenue from sale of surplus power	Rs. Crs	25.08
4	Total Revenue - (2+3)	Rs. Crs	446.76
5	**Revenue Gap (1-4)**	**Rs. Crs**	**424.88**
6	Energy Sales	MU	668.45
7	Surplus Power sales	MU	107.19
8	**Total Sales (6+7)**	MU	**775.64**
9	Average Cost of Supply - [(1-3)*10]/6	Rs/kWh	12.66
10	Avg Revenue from Retail Sale - (2*10)/6	Rs/kWh	6.31
11	Avg Rate for Surplus power Sale - (3*10)/7	Rs/kWh	2.34
12	Avg Rate from all energy Sale - (4*10)/8	Rs/kWh	5.76
13	Avg rate for Unmet Revenue Gap (5*10)/8	Rs/kWh	5.48
14	Government subsidy proposed	Rs.Crs	316.34
15	**Unmet Revenue Gap (5-14)**	**Rs.Crs**	**108.54**

Commission Analysis:

The projected Average Cost of Supply (ACS) and Average billing realization (ABR) from sale of power for FY 2021-22 as per the Commission is as shown Below:

Table 7.24: Avg. Cost of Supply & Avg. Billing revenue at existing tariff for FY 2021-22 by Commission

Sl.No.	Particulars (FY 2021-22)	Units	Amount
1	Net Revenue Requirement	Rs. Crs	806.04
2	Revenue from existing tariff	Rs. Crs	436.82
3	Revenue from sale of surplus power	Rs. Crs	12.67
4	Total Revenue - (2+3)	Rs. Crs	449.49
5	**Revenue Gap (1-4)**	**Rs. Crs**	**356.56**
6	Energy Sales	MU	677.13
7	Surplus Power sales	MU	50.13
8	**Total Sales (6+7)**	MU	**727.26**
9	**Average Cost of Supply [(1-3)×10]/6**	**Rs/kWh**	**11.72**
10	**Avg rate of billing revenue (2×10)/6**	**Rs/kWh**	**6.45**
11	Avg Sale Rate for Surplus power (3×10)/7	Rs/kWh	2.53
12	Avg Rate from all energy Sales (4×10)/8	Rs/kWh	6.18
13	Avg rate from Revenue Gap (5×10)/8	Rs/kWh	4.90
14	Government subsidy Proposed	Rs.Crs	285.38
15	**Unmet Revenue Gap (5-14)**	**Rs.Crs**	**71.18**

7.19 Recovery of Revenue Gap for FY 2021-22 as proposed by MSPDCL

Petitioner's Submission

Further, the Hon'ble Commission will appreciate that MSPDCL's own contribution to its ARR is only Rs. 200.15 crore, after excluding cost of power purchase and transmission charges, which are payable to other agencies based on regulated tariffs, and are hence, uncontrollable for MSPDCL. Thus, MSPDCL's contribution is only 22.96% of the proposed ARR of Rs. 871.64 crore, which works out to Rs. 2.36 per kWh, considering the total energy injected in MSPDCL's periphery.

Thus, it needs to be appreciated that the estimated Revenue Gap of Rs. 424.88 crore is nearly the same as Revenue from sale of power at existing tariff, i.e., Rs. 421.68 crore. In other words, if the entire Revenue Gap has to be recovered from the revised tariff, then the average tariff rise required will be 100.76%, which is very high and would amount to a huge tariff shock. Hence, for some years at least, the dependence on revenue subsidy support from the State Government would have to continue. At the same time, there is an urgent need to increase the category-wise tariffs to be charged by MSPDCL, so that the recovery of the ARR through tariffs can be met. In view of above, MSPDCL has considered that the State Government would provide revenue subsidy support in FY 2021-22 to the extent of Rs. 316.34 crore, in addition to any Grants for creation of capital assets. The balance Revenue Gap of Rs. 108.54 crore would thus, have to be recovered from the consumers through an average tariff hike of 25.74%, as shown in the Table below:

Table: 7.25 - Average Tariff Increase proposed by MSPDCL for FY2021-21

Sl. No.	Particulars	Units	With Subsidy
1	Net ARR	Rs.Crs	871.64
2	Revenue from Existing Tariff	Rs.Crs	421.68
3	Sale of Surplus Power	Rs.Crs	25.08
4	Total Sales Proceeds	Rs.Crs	446.76
5	Revenue Gap	Rs.Crs	424.88
6	State Government Revenue Subsidy	Rs.Crs	316.34
7	Net Un-met GAP	Rs.Crs	108.54
8	Revenue from sale of power at proposed tariff	Rs.Crs	530.22
9	**Unit revenue realisation at the Proposed tariff**	**Rs./kWh**	**7.93**
10	**Average Tariff hike required = (7/2) x100**	**%**	**25.74%**

Table: 7.26 -Average Tariff Increase approved by Commission for FY2021-22

Sl. No	Particular for FY 2021-22	Units	Existing	Post Revision
1	Net ARR	Rs.Crs	806.040	806.040
2	Revenue from existing tariff	Rs.Crs	436.818	**436.818**
3	Sale of Surplus Power	Rs.Crs	12.670	12.670
4	Total Sales Proceeds (2+3)	Rs.Crs	449.490	449.490
5	**Revenue Gap**	**Rs.Crs**	**356.560**	**356.560**
6	State Government Tariff Subsidy (*)	Rs.Crs	--	285.380
7	Net Unmet GAP	Rs.Crs	356.560	71.176
8	Total Revenue after tariff revision - (2+7)	Rs.Crs	--	507.990
9	**Average Tariff hike made = (7/2) x 100**	**%**	--	**16.29%**

(*) – As derived from Budget allocation under (Demand No.23 – Power) for 2021-22.

7.20 Revenue after approved Tariff enhancement by Commission for FY 2021-22

Table 7.27: Expected revenue from Existing & Revised Tariff as per Commission

Sl. No	Category (FY 2021-22)	Energy Sales (MU)	Existing Revenue (Rs. Crs)	CPU (Rs./ kWh)	Revised Revenue (Rs.Crs)	CPU (Rs./ kWh)
A	**Low Tension Supply**					
1	Kutir Jyoti	4.10	1.30	3.16	1.33	3.26
2	Domestic	441.28	244.99	5.55	282.68	6.41
3	Commercial	59.00	47.51	8.05	50.50	8.56
4	Small Industry	19.47	10.07	5.17	10.98	5.64
5	Public Lighting	3.86	3.38	8.75	3.75	9.72
6	Public Water Works	1.29	1.18	9.14	1.31	10.18
7	Irrigation & Agriculture	1.15	0.51	4.43	0.55	4.77
	Total LT	**530.15**	**308.93**	**5.83**	**351.11**	**6.62**
B	**High Tension Supply**					
8	Commercial	19.98	20.89	10.46	22.35	11.19
9	Medium Industry	3.92	3.09	7.88	3.71	9.48
10	Large Industry	8.15	8.04	9.86	9.52	11.69
11	Bulk Supply	90.19	71.01	7.87	93.36	10.35
12	Public Water Works	23.99	24.40	10.17	27.44	11.44
13	Irrigation & Agriculture	0.75	0.47	6.21	0.50	6.62
	Total HT	**146.98**	**127.89**	**8.70**	**156.88**	**10.67**
14	**Grand Total (LT+HT)**	**677.13**	**436.82**	**6.45**	**507.99**	**7.50**
15	Outside State Sales	50.13	12.67	2.53	12.67	2.53
16	**Overall Sales (14+15)**	**727.26**	**449.49**	**6.18**	**520.66**	**7.16**

Note: Detailed calculation for revised tariff is given at Annexure – IV.

The revision in tariff is made effective from 1st May 2021 while tariff applied for April 2021 month is at prevailing tariffs (pre-revised) itself. It is observed that the revenue assessment by the Licensee was under projected in case of all H.T category revenue assessment erroneously upon adoption of **0.98 Power factor** instead of **0.90 PF** as was stipulated in the Electricity Supply Code for all practical purposes. This aspect has the impact of undermined H.T revenue. Besides, the Sales projection of 668.45MU indicated in ARR filing has also been revised by Commission to 677.13MU as the sales projection was erratic within LT & HT categories itself when compared with FY2020-21 sales figures and hence modified to make it more uniform even in 2021-22. This has resulted in additional revenue amount as compared to the MSPDCL submission figures.

As seen from **Table-7.26** supra the revenue gap noted was at **Rs.356.56 Crore** before considering the Govt subsidy amount which is about **44.94%** of **Net ARR approved** of **Rs.806.04 Crs** in FY 2021-22 after due adjustment of the expected revenue realisable from Outside State sale. The existing (prevailing) tariffs of FY 2020-21 are **in force upto 30th April 2021.** When it comes to revenue subsidy from Govt of Manipur, the element wise budgetary support details to MSPDCL **under Demand No.23, Major head 2801, Sub-head-39 for FY2021-22** are as follows:

Object	Description	Approved Budget (Rs.Crs)
31	Grants-in-Aid	155.38
33	Subsidies	120.00
35	**Grants for Creation of Assets**	**16.00**
36	Grants-in-Aid (Non-Salary)	10.00
Total Budget for MSPDCL in 2021-22		**301.38**
Less: Capital Subsidy		**16.00**
Commission inferred subsidy for Tariff		**285.38**

But there is no specific letter addressed by the Govt of Manipur clearly indicating its willingness to provide the tariff subsidy of Rs.316.34 Crs during FY 2021-22. On contrary the amount of Government subsidy as notified in the budget under **Demand No.23 - Power** duly excluding the subsidy for creation of Capital Assets of Rs.16 Crs is noted as **Rs.285.38 Crs only.** Hence the government tariff subsidy of Rs.316.34 Crs indicated in the ARR filing for FY 2021-22 by the MSPDCL is therefore construed to be erroneous and unreliable. Thus, the Commission derived revenue subsidy of Rs.285.38 Crs is found insufficient to absorb the **noted unmet revenue gap of Rs.356.56 Crs** and thus makes it imperative to revise the prevailing tariffs suitably to meet the unmet gap duly **imputing the notified government budget subsidy of Rs.285.38 Crs as tariff related revenue subsidy considering it to have been notified under Section-65 of the Electricity Act 2003**. *Had it been not considered so by the Commission, it would result in huge tariff hike shock to all consumers of MSPDCL.*

The Commission thus considers it imperative to revise the existing tariffs upto **16.29%** increase under telescopic billing as against 25.74% proposed by MSPDCL in order to obviate huge tariff revision experience to retail consumers of the State and also to finally bridge the noted revenue gap. The commission approved tariff would provide an additional revenue of Rs.71.18 Crore (**Rupees Seventy-one crores one-eight lakhs only**) to MSPDCL in FY2021-22.

The revenue gap of Rs.108.54 Crs as proposed by the MSPDCL got decreased to Rs.71.18 Crs with various costs judiciously approved by the Commission including adopting internal efficiency amount of Rs.16 Crs additionally in the approved ARR amount and Licensee shall endeavour to mitigate the unmet gap it from the tariff revision besides improving internal efficiency *by* ***recovering stated Rs.16 crs of long pending dues as an initiative attempt to slowly bring down mounting outstanding dues to the tune of Rs.543 Crs accumulated to the end of FY2020-21 still appears stultifying task apparently seeing at huge volume of chronic dues***. The amount of Rs.16 Crs referred above is over and above Rs.40 Crs of internal efficiency already stated in the last Tariff Order of FY 2020-21 whose recovery status is undisclosed.

7.21 Government Subsidy/ Support

The Tariff Subsidy support amount to MSPDCL from Government of Manipur is now fixed at **Rs. 285.38 Crs** Crore instead of Rs.316.34Crs indicated in the ARR. As seen from the above, it is clear that the revenue from sale of power at existing Tariff and Government subsidy together leaves an unmet gap of Rs.71.18 Crs to be recovered through fresh revision of Tariff in order to meet the approved net ARR to the tune of **806.04 Crs.** Consequently, the MSPDCL shall make assiduous efforts to get the tariff subsidy/ support promptly from Government of Manipur on monthly basis to even out the heralding financial crunch due to huge noted revenue gap.

The Section-65 of the Electricity Act 2003 mandates the State Government to release subsidy amount due to the licensee in advance in each month so as to enable the licensee to implement the subsidized tariffs to their consumers as per Revised Subsidized Tariff Schedule placed at **Table-8.2** and the broad revenue amount realizable is shown at **Table-7.27.** The element-wise detailed calculations of expected revenue from approved (subsidized) tariff are placed at **Annexure-III** for guidance and reference.

Hence, the State Government should release the above stated annual subsidy amount of 285.38 Crs in Twelve (12) equal monthly installments amounting to **Rs.23.78 Crs** (Rupees Twenty-three crore and seventy-eight lakhs only) per month which shall also include April 2021 month even though the tariff revision is made effective from 1st May 2021 onwards. However, in the event of non-receipt of subsidy in any month from the Government, the licensee can adopt the applicable **full cost tariff schedule (FCTS**) placed at **Table-8.3**, while issuing the monthly energy bill for that relevant month (detail revenue calculation from FCT is indicated at **Annexure-IV).**

A brief summary of revenue amount of Rs.793.37 Crs being the Full Cost Tariff (FCT) amount after adjusting revenues from Outsides sale of Rs.12.67 crs is tabulated below for reference.

Table: 7.28. MSPDCL Revenue details at Full Cost Tariff for FY 2021-22

Sl. No	Category	Sales (MU)	CPU (Rs/kWh)	Revenue (Rs. Crs)
A	**LT Supply**			
1	Kutir Jyoti	4.10	9.94	4.08
2	Domestic	441.28	10.90	481.19
3	Commercial	59.00	12.91	76.14
4	Small Industry	19.47	11.98	23.32
5	Public Lighting	3.86	13.62	5.26
6	Public Water Works	1.29	13.54	1.75
7	Irrigation & Agriculture	1.15	10.54	1.21
8	**Total Low Tension**	**530.15**	11.18	**592.95**
B	**HT Supply**			
9	Commercial	19.98	13.60	27.17
10	Public Water Works	23.99	13.80	33.10
11	Irrigation & Agriculture	0.75	11.67	0.88
12	Medium Industry	3.92	12.99	5.09
13	Large Industry	8.15	13.81	11.25
14	Bulk Supply	90.19	13.63	122.93
15	**Total High Tension**	**146.98**	13.64	**200.42**
16	**Grand Total (LT+HT)**	**677.13**	**11.72**	**793.37**
17	Outside State Sales	50.13	2.53	12.67
18	**Total overall Sales**	**727.26**	**11.08**	**806.04**

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There can be a situation, where the outstanding subsidy was released by the government after elapse of sometime and thereby the consumers were to be billed at full cost tariffs (FCT) in any such relevant month or months on such occurrence. Given the situation, the entire excess amount so charged on account of full cost tariff shall have to be reflected as rebate, by the licensee at a time, in the immediate monthly billing cycle being issued to respective consumer soon after receiving such pending subsidy pertaining to the past period. In case, if the refundable rebate amount exceeds the monthly bill amount to be adjusted, then such excess amount may have to be carried forward and be adjusted in the following monthly bill/bills to be issued to the consumer until full settlement is made through such refunding.

Lastly, the brief summary of the calculations in support of subsidy amount so arrived at, the average cost of supply and the average revenue realisation details after approved tariff hike in comparison to the ARR filing is tabulated below:

Table 7.29: Average Cost of Electricity supply MSPDCL Vs. Commission for FY2021-22

Sl. No	Particulars	Units	MSPDCL Projected	Commission Approved
1	Net overall ARR	Rs. Cr	871.64	806.04
2	Sale of surplus power	Rs. Cr	25.08	12.67
3	**Net ARR within the state (1-2)**	**Rs. Cr**	**846.56**	**793.37**
4	Govt. subsidy/ Support	Rs. Cr	316.84	285.38
5	**Net ARR after Govt. subsidy (3 - 4)**	**Rs. Cr**	**530.22**	**507.99**
	a) Revenue from existing Tariff	Rs.Cr	421.68	436.82
	b) Additional revenue from Hike	Rs.Cr	108.54	71.18
6	Energy sale within the state	MU	668.45	**677.13**
7	**Average cost of supply (3/6)**	Rs/KWH	**12.66**	**11.717**
8	Avg. Revn. realisation (subsidy if paid)- (5/6)	Rs/KWH	7.93	7.50
9	**Avg. Subsidy per unit - (7-8)**	Rs/kWh	**4.73**	**4.217**

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8. Tariff Principles and Design

8.1 Background

a. The Commission, in determining the revenue requirement of MSPDCL for the year 2017-18 and the retail tariff, has been guided by the provisions of the Electricity Act, 2003, the National Tariff Policy (NTP), Regulations on Terms and Conditions of Tariff issued by the Central Electricity Regulatory Commission (CERC) and Regulations on Terms and Conditions of Tariff notified by the JERC for M&M. Section 61 of the Act lays down the broad principles, which shall guide determination of retail tariff. As per these principles the tariff should "Progressively reflect cost of supply" and also reduce cross subsidies "within the period to be specified by the Commission". The Act lays special emphasis on safeguarding consumer interests and also requires that the costs should be recovered in a reasonable manner. The Act mandates that tariff determination should be guided by the factors, which encourage competition, efficiency, economical use of resources, good performance and optimum investment.

The latest NTP, notified by Government of India in January 2016, provides comprehensive guidelines for determination of tariff as also working out the revenue requirement of power utilities. The Commission has endeavored to follow these guidelines as far as possible.

b. The NTP mandates that the Multi-Year-Tariff (MYT) framework be adopted for determination of tariff from 1st April 2006. Accordingly, the MSPDCL has filed petition for determination of ARR for to FY 2020-21 with reliable data.

c. The mandate of the NTP is that tariff should be within plus / minus 20% of the average cost. It is not possible for the Commission at this stage to lay down the road map for reduction of cross subsidy within ±20% mainly because of consumers' low paying capacity and relatively high cost of power. However, in this tariff order an element of performance target has been indicated by setting target for distribution loss reduction and increasing sales volume during FY 2018-19. The improved performance, by reduction of loss level, and increase in sales will result in substantial reduction in average cost of supply. The existing and proposed tariffs of MSPDCL are two-part tariff. The Commission has considered for a nominal increase in tariff in view of the low paying capacity in the State.

d. **Clause 8.3 of National Tariff Policy lays down the following principles for tariff design:**

(i) In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per Month, may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply. This provision will be re-examined after five years.

(ii) For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify the roadmap, within six Months with a target that latest by the end of the year 2018-19 that tariffs are within ± 20% of the average cost of supply. The road map would have intermediate milestones, based on the approach of a gradual reduction in cross subsidy.

For example, if the average cost of service is Rs.3 per unit, at the end of year 2015-16, the tariff for the cross subsidized categories excluding those referred to in para-1 above should not be lower than Rs. 2.40 per unit and that for any of the cross-subsidizing categories should not go beyond Rs.3.60 per unit.

(iii) While fixing tariff for agricultural use, the imperatives of the need of using ground water resources in a sustainable manner would also need to be kept in mind in addition to the average cost of supply. The tariff for agricultural use may be set at different levels for different parts of the State depending on the condition of the ground water table to prevent excessive depletion of ground water.

e. Regulation 16 of JERC for M&M (Terms and Conditions for Determination of Tariff) Regulations specifies.

(i) The cross subsidy for a consumer category means the difference between the average per unit rate based on tariff schedule of the Commission for that Category and the combine average cost of supply per unit expressed in percentage terms as a portion of the combined average cost of supply.

(ii) In the first place, the Commission shall determine the tariff, so that it progressively reflects the combined average cost of supply of electricity and also reduce cross-subsidies within a reasonable period. In the second phase, the Commission shall consider moving towards category wise cost of supply as a basis for determination of tariff.

f. The Commission has considered special treatment to Kutir Jyoti connections and agricultural sector. It has also aimed at raising the per capita consumption of the State from 100 kwh in 2010-11 to 162 kWh in 2014-15 and 300 kWh by the end of 2018-19. The Commission endeavors that the tariffs progressively reflect cost of supply in a shortest period and the Government subsidy is also to be reduced gradually. The tariffs have been rationalized with regard to inflation, paying capacity of consumers and to avoid tariff shock.

8.2 Tariffs Proposed by the MSPDCL and Approved by the Commission

a) Existing & Proposed by MSPDCL

MSPDCL in its tariff petition for FY 2020-21 has proposed for revision of the existing retail tariffs to various categories of consumers to earn additional revenue to meet the expenses partly.

The MSPDCL has proposed tariff revision as indicated in table - 8.1 below. The proposed increase in tariff by the MSPDCL would result in an overall increase in revenue is about **25.74%**

Table 8.1: Existing and Proposed Tariff for FY 2021-22 by MSPDCL

Sl. No.	Consumer Category	Existing Tariff (2020-21)		Proposed Tariff (2021-22)	
		Fixed Charges	Energy charge	Fixed Charge	Energy Charge
	LT Supply	**(Rs./kW/PM)**	**Rs/kWh/PM**	**(Rs./kW/PM)**	**Rs/kWh/PM**
1	**Kutir Jyothi**				
i	All units (15kWh/ month)	25 (Connection)	2.00	25 (Connection)	2.00

Sl. No.	Consumer Category	Existing Tariff (2020-21)		Proposed Tariff (2021-22)	
		Fixed Charges	Energy charge	Fixed Charge	Energy Charge
	LT Supply	**(Rs./kW/PM)**	**Rs/kWh/PM**	**(Rs./kW/PM)**	**Rs/kWh/PM**
2	**Domestic**				
i	0-100 kWh/month	60	4.20	65	5.80
ii	101-200 kWh/month	60	5.50	65	7.10
iii	Above 200 kWh/month	60	6.40	65	8.20
3	**Commercial**				
i	1-100 kWh/month	80	5.85	85	7.80
ii	101-200 kWh/month	80	6.90	85	8.90
iii	Above 200 kWh/month	80	7.45	85	9.30
4	Public Lighting System	65	8.50	70	8.70
5	Public Water works	100	8.70	105	8.90
6	Irrigation & Agriculture	60	4.20	65	5.20
7	Small Industry	65	4.40	70	5.80
	HT Supply	**Rs/kVA/PM**	**Rs/kVAh/PM**	**Rs/kVA/PM**	**Rs/kVAh/PM**
1	Commercial	100	8.10	105	9.60
2	Public Water works	100	8.30	105	8.50
3	Irrigation & Agriculture	100	4.40	105	4.60
4	Medium Industry	100	5.70	105	7.00
5	Large Industry	100	7.10	105	8.50
6	Bulk Supply	100	6.40	105	7.90

b) Category Wise Tariffs approved by the Commission

The Commission approved tariff categories/sub-categories are given below. The un-metered supply includes consumers not provided with energy meters. Unmetered supply will be billed based on assessed consumption arrived as per JERC for M&M (Electricity Supply Code) 2013 at the relevant rates of metered Tariff of the respective categories**. For HT Connections billing shall be done on KVAH instead KWH in the case of energy charges also, though the licensee has ignored such indication in the energy charges which was existing in the last year FY 2020-21 also.**

c) Revised Tariff approved for FY 2021-22 by the Commission

Having considered the Petition (ARR & Tariff) of MSPDCL for approval of Aggregate Revenue Requirement (ARR) and determination of Retail Tariff for sale of energy and having approved the Aggregate Revenue Requirement (ARR) with a revenue gap of **Rs. 356.56 Crore** vide Table-7.26 supra the Commission considers to revise the tariffs under Telescopic billing/with an average increase by **16.29**%, as against 25.74% projected by MSPDCL detailed in table below.

The Commission has agreed to increase the fixed charges as proposed by MSPDCL but the Energy charges were revised at the following rates making it effective 1st May 2021 onwards only. The existing tariffs are to be adopted for April 2021 month consumption billing for all consumer category.

Table 8.2: Category wise Tariffs Approved by the Commission for FY 2021-22

Sl. No	Category & Consumption Slab	Fixed Charges (Rs./kW/Kva/PM)	Energy Charges (Rs./kWh or kVAh)
	LT SUPPLY		
1	**Kutir Jyoti**	**Rs./Connection**	**Rs./kWh**
	All units (Upto 45 kWh/ 3 Months)	25	2.10
2	**Domestic**	**Rs./kW**	**Rs./kWh**
	(i) First - 100 kWh/Month	65	5.10
	(ii) Next 100 kWh/Month	65	5.95
	(iiI) Above 200 kWh/Month	65	6.75
3	**Non-Domestic/Commercial**	**Rs./kW**	**Rs./kWh**
	(i) First - 100 kWh/Month	85	6.55
	(ii) Next 100 kWh/Month	85	7.25
	(iii) Above 200 kWh/Month	85	7.65
4	Public Lighting	70	9.55
5	Public Water Works	105	9.80
6	Irrigation & Agriculture	65	4.55
7	Small Industry	70	4.85
	HT SUPPLY	**(Rs./kVA)**	**(Rs./kVAh)**
1	Commercial	105/kVA	8.75
2	Public Water Works	105/kVA	9.50
3	Irrigation & Agriculture	105/kVA	4.75
4	Medium Industry	105/kVA	7.20
5	Large Industry	105/kVA	8.80
6	Bulk Supply	105/kVA	8.80

Note: The above table depicts fixed and energy charge only. Detailed Charges descriptions are given in the tariff schedule Appended.

d) Approved Full Cost Tariff

With the approved ARR for FY 2021-22, the Commission also works out the average revenue realization is at **Rs.7.50/kWh based on revised tariff**. In the event of non-receipt of subsidy in advance in any month from the State Government, the Commission considers to adopt charging full cost tariff for all consumers is tabulated below:

Table 8.3: Category wise full cost tariff (Without Subsidy) for FY 2021-22 as approved by the Commission

Sl. No	Category & Consumption Slab	Fixed Charges (Rs./kW/kVA/pm)	Energy Charges (Rs./kWh or kVAh)
	LT SUPPLY		
1	**Kutir Jyoti**	**Rs./Connection**	**Rs./kWh**
	All units (Upto 45 kWh/ 3 Months)	25/Connection	8.78
2	**Domestic**	**Rs./kW**	**Rs./kWh**
	(iii) First - 100 kWh/Month	65	9.56
	(iv) Next 100 kWh/Month	65	10.17
	(iiI) Above 200 kWh/Month	65	10.70
3	**Non-Domestic/Commercial**	**Rs./kW**	**Rs./kWh**
	(iv) First - 100 kWh/Month	85	11.21
	(v) Next 100 kWh/Month	85	11.47
	(vi) Above 200 kWh/Month	85	11.52
4	Public Lighting	70	13.36
5	Public Water Works	105	13.08
6	Irrigation & Agriculture	65	10.29
7	Small Industry	70	11.15
	HT SUPPLY	**(Rs./kVA)**	**(Rs./kVAh)**
1	Commercial	105	10.86
2	Public Water Works	105	11.52
3	Irrigation & Agriculture	105	9.25
4	Medium Industry	105	10.24
5	Large Industry	105	10.56
6	Bulk Supply	105	11.55

Note: Fixed charge is per kW of contracted load for LT supply except kJ while in case of HT Supply, it is per kVA of Billing Demand. Energy charge is per kWh for LT supply and per kVAh for HT supply and for LT high value services provided with MDI meters. The above table depicts fixed and energy charge only. However, Tariff Charges description in detail are given under the Tariff Schedule chapter Appended.

e) Miscellaneous Charges and Important Conditions of Supply

The detailed Tariffs including rates for un-metered categories of consumer, miscellaneous charges and Important Conditions of Supply furnished by MSPDCL are examined and approved as given in the Tariff Schedule in the Appendix.

As per Electricity Act, 2003, electricity supply shall not be given without meters. Commission is also regularly giving directives in this regard. Therefore, the MSPDCL shall not release any new connections without meters which is very serious deviation. In next tariff order no unmetered tariff will be allowed.

9. Wheeling Charges for FY 2021-22

9.1 Background

MSPDCL has proposed its wheeling charges at **1.55/kwh**. The MSPDCL is not maintaining separate accounts for the distribution wire business and retail supply business. So, the ARR of the wheeling business is arrived at as per the following matrix.

Table 9.1 Allocation matrix

Sl. No.	Particulars	Wire business	Retail Supply business
1	Power purchase cost	0%	100%
2	Employee cost	60%	40%
3	R & M expenses	90%	10%
4	Adm. & General Expenses	50%	50%
5	Depreciation	90%	10%
6	Interest & Finance Charges	90%	10%
7	Interest on working Capital	10%	90%
8	Provision for bad debts	0%	100%
9	Income tax	90%	10%
10	Return on equity	90%	10%
11	Contribution to contingency reserves	100%	0%
12	Non-tariff Income	10%	90%

9.2 ARR for wheeling business projected by MSPDCL

Table 9.2: ARR for Wires Business for FY 2021-22 projected by MSPDCL

Sl. No.	Particulars	Total ARR	Wires Business	Retail Supply Business	Wires ARR	Supply ARR
A	**Expenditure**	**Rs.Crs**	**(%)**	**(%)**	**Rs.Crs**	**Rs.Crs**
1	Cost of power purchase	491.63	0%	100%	0	491.63
2	Inter-State Transmission charges	83.06	0%	100%	0	83.06
3	Intra-State Transmission charges	101.93	0%	100%	0	101.93
4	NERLDC Charges	1.52	0%	100%	0	1.52
5	O&M Expenses	**145.97**				
	Employee Expenses	116.43	60%	40%	69.86	46.57
	Repair & Maintenance Expenses	19.44	90%	10%	17.50	1.94
	Administrative & General Expenses	10.1	50%	50%	5.05	5.05
6	Depreciation	4.8	90%	10%	4.32	0.48
7	Interest on Loan	36.27	90%	10%	32.64	3.63
8	Interest on Working Capital	8.31	10%	90%	0.83	7.48
9	Provision for bad debts	3.00	0%	100%	0	3.00
	Total Cost	**876.49**			**130.20**	**746.30**

Sl. No.	Particulars	Total ARR	Wires Business	Retail Supply Business	Wires ARR	Supply ARR
B	Add: Return on Equity	1.95	90%	10%	1.76	0.20
	Add: Income Tax	0	90%	10%	0	0
	B: Total	1.95			1.76	0.20
C	**Total ARR: A+B**	**878.44**			**131.95**	**746.49**
D	**Less (Non-Tariff Income)**	6.8	10%	90%	0.68	6.12
	Sub-total (D)	6.8			0.68	6.12
	Net Aggregate Revenue Requirement (C-D)	**871.64**			**131.27**	**740.37**

The proposed Wheeling Charges for FY 2021-22 have been computed based on the methodology adopted by the Hon'ble Commission for determining the Wheeling Charges in the MYT Order dated March 12, 2018, as shown in the Table below:

Table 9.3: ARR for Wires Business for FY 2021-22 projected by MSPDCL

Sl.	Particulars	Units	Amount
1	ARR for Wires Business	Rs. Crore	131.27
2	Energy available at Distribution periphery	MU	846.68
3	**Wheeling Charges**	**Rs/kWh**	**1.55**

Thus, MSPDCL proposes Wheeling Charges of Rs. **1.55 per kWh** for Open Access transactions in the State of Manipur.

Commissions Analysis

ARR for wheeling business arrived based on approved ARR and methodology vide Table 9.1 supra is as detailed in table below.

Table 9.4: ARR of wheeling business approved by the Commission for FY 2021-22

Sl. No.	Particulars (FY 2021-22)	Total ARR	Wires Business	Retail Supply Business	Wires ARR	Supply ARR
A	**Expenditure**	**Rs.Crs**	**(%)**	**(%)**	**Rs.Crs**	**Rs.Crs**
1	Cost of power purchase	462.83	0%	100%	-	462.83
2	Inter-State Transmission charges	83.06	0%	100%	-	83.06
3	Intra-State Transmission charges	96.27	0%	100%	-	96.27
4	NERLDC Charges	1.52	0%	100%	-	1.52
5	O&M Expenses	**145.97**			**92.41**	**53.56**
	i) Employee Expenses	116.43	60%	40%	69.86	46.57
	ii) Repair & Maintenance Expenses	19.44	90%	10%	17.50	1.94
	iii) Administrative & General Expenses	10.10	50%	50%	5.05	5.05
6	Depreciation	1.84	90%	10%	1.66	0.18
7	Interest on Loan	35.79	90%	10%	32.21	3.58

Sl. No.	Particulars (FY 2021-22)	Total ARR	Wires Business	Retail Supply Business	Wires ARR	Supply ARR
8	Interest on Working Capital	-	10%	90%	0.00	0.00
9	Provision for bad debts	-	0%	100%	-	0.00
	Total Cost	**827.28**		--	**126.28**	**701.00**
B	Add: Return on Equity	1.56	90%	10%	1.40	0.16
	Add: Income Tax	-	90%	10%	-	-
	B: Total	**1.56**		--	**1.40**	**0.16**
C	**Gross ARR: (A+B)**	**828.84**		--	**127.68**	**701.16**
D	**Less (Non-Tariff Income)**	6.80	10%	90%	0.68	6.12
	Less: Efficiency Gains	**16.00**	0%	100%	--	16.00
	Sub-total (D)	**22.80**			**0.68**	**22.12**
Net Aggregate Revenue Requirement (C-D)		**806.04**			**127.00**	**679.04**

9.3 Wheeling Tariff

The wheeling tariff has been calculated on the basis of the ARR for wheeling business and total energy sold as detailed in table below:

Table 9.5: Wheeling Tariff approved by the Commission for FY 2021-22

Sl. No.	Particulars	Unit	Amount
1	ARR for wheeling function	Rs/Crore	127.00
2	Energy available at Distribution periphery	MU	934.89
3	Wheeling tariff	Rs/kWh	1.358

The Commission approves wheeling charge at Rs. 1.358/kWh for FY 2021-22 as against Rs.1.55 projected by MSPDCL.

10. Directives

10.1 General

While examining the information and data contained in the Tariff Petition for FY 2021-22, it is observed that the computation and compilation of the data have been done based on assumptions only and as a result, there has been difficulties in finalization of the ARR and determination of retail tariff also. The above observation itself substantiates the fact that the administrative, technical and commercial performances of the MSPDCL require substantial improvement within a specified time frame.

Similar situation was noticed in the ARR & Tariff petition for the FY 2021-22. The Commission had observed that while there is ample scope for reducing cost and increasing efficiency in the operation of the department, serious efforts appear to be lacking. It is in the above context that certain directives were given in the earlier Tariff Orders of which some were fully complied with. The Commission expected that MSPDCL would take prompt action on the directives and monitor their implementation. Unfortunately, action is yet to be taken on most of the important directives, which could make significant difference to operational efficiency and cost. In some cases, action has no doubt been initiated, but overall seriousness with which the directives were issued by the Commission does not appear to have been realized by the MSPDCL.

In the above background, the Commission is constrained to repeat the directives which have not been fully complied with and also specific new directives are added.

BALANCE DIRECTIVES ISSUED

Directive 2: Annual Statement of Accounts

MSPDCL was directed to prepare separate annual accounts statements such as balance sheet, profit and loss Account and relevant schedules and statements every year for regulatory purpose and submit to the Commission after duly getting them audited. MSPDCL should file next ARR tariff petition along with true up petition base on audited annual accounts figure for the years from 2015-16, 2016-17 and 2017-18. Their commission shall no longer entertain provisional true up.

Commission will no longer entertain provisional true up in the next tariff petition without the submission of the Audited annual accounts in full shape. The delay in submission of true-up will cost the Licensee to forego the entitlement to claim for additional period cost due to inflation for the true-up delay.

Compliance Status

MSPDCL is in the process of finalizing the financial statements of FY 2016-17, FY 2017-18 and FY 2018-19 and will submit the same to the Hon'ble Commission once it is finalized.

For FY 2015-16, MSPDCL has submitted the audited account to Hon'ble Commission.

Comment of the Commission

MSPDCL should explain the reason/difficulty as to why annual accounts could not be audited for this long time. As per the pre-commitment condition for the SLTT loan under Covid-19 policy, **"The MSPDCL shall undertake to submit the Audited Annual Accounts for the FY 2016-17 to FY 2018-19 by 31.12.2020."** If it was complied with by 31.12.2020, why the audited accounts were not submitted along with the ARR submission made to Commission on February 2021, explain?

Directive 3:

Maintenance of Asset & Depreciation Registers

MSPDCL was directed to update the asset register and submit to the Commission soon.

Compliances:

Asset and depreciation registers for FY 2015-16, FY 2016-17, FY 2017- 18 are ready for submission. The same shall be submitted at the earliest possible.

Commission's Comments

The Commission observes the above reply to be a stock reply, as the same reply with verbatim was given during 2020-21 Tariff Order finalisation also. Why the registers are still pending for submission to Commission, if they are ready. For this reason, the Investment CAPEX, fresh Capitalisation and Depreciation & Return on Equity claims will not be considered from the ongoing ARR finalisation till such time this information which is ready in full shape is kept in abeyance intentionally by Licensee. ***This action of Commission is now in implementation from this Tariff order itself and also in all true-up claims being preferred.*** *The deadline for submission is now left to the Licensee decision*. However, the directive is treated as not complied with.

Directive 4:

Management Information System (MIS)

MSPDCL was directed to take appropriate steps to build up credible & accurate database and management information system (MIS) and regularly update the same for future record and reference. Arrangement may also be made for "On-line Payment" and "Payment through Bank" of the electricity bills.

Compliances:

The MIS system is under progress and the database is being prepared. The online payment portal for pre-paid recharge is already active, where payments can be done through electronic wallets.

Commission's Comments

The above compliance reply is the facsimile of last year's reply and no progress seems to have been achieved even after elapse of one full year time. There seems, the licensee is very much casual in his attentiveness to Commission directives. Thus, the Commission is constrained to adopt some financial cut in this year's ARR onwards for this deliberate lapse in this Tariff Order finalisation until such time this lapse is continued. The directive is treated as uncompiled with.

Directive 5:

Revenue Arrears

MSPDCL was directed to assess year-wise Revenue Arrears due from consumers and submit a report by 30th September, 2011 to the Commission. The MSPDCL was also further directed to initiate action to collect/ liquidate the arrears.

Through prepaid meters future accumulation of fresh arrears can be arrested. At present we are in Post- paid meters' usage stage. In the directive, it was requested to **submitted category wise year wise arrears due at a point of time say as on 31.03.2018.** This may be reported by 30.06.2019.

Compliances:

A summary of consumer bill outstanding is as follows:

Opening as on 01.02.2014	431.12 Cr
As on 31.03.2014	425.72 Cr
As on 31.03.2015	437.43 Cr
As on 31.03.2016	446.48 Cr
As on 31.03.2017	470.59 Cr
AS on 31.03.2018	495.66 Cr

Please also refer response against New Directive No.2

Commission's Comments

The Category-wise and year-wise arrears details were called for was not submitted to the Commission so far, though the same information was directed for submission **on or before 31st March 2018**. The reply doesn't seems addressing this issue context. The reply appears casual in nature without any seriousness. The latest Revenue arrear dues as on 31.03.2021 and the amounts collected quarter-wise during FY 2019-20 and 2020-21 needs to be submitted to the Commission without fail or any plausible reason on or before 30th June 2021. However, difference between Rs.495.66Crs-Rs.431.12Crs amounting to 64.54Crs is directly attributable to post reforms arrears and this situation is directly imputable to failure on the part of MSPDCL. In the previous order (FY 2020-21) Rs.40crs was adjusted in ARR for Internal Efficiency improvement and now the balance amount of Rs.16.00 Crs once again treated in the same fashion in 2021-22 ARR and the revised Tariffs will be fixed accordingly upon seeing the disoriented attitude of the licensee in this matter even after passage of more than two-year time.

Directive 8:

Sale of Power outside the State

MSPDCL was directed to ensure that only surplus power be sold under UI sales after fully meeting the State's requirement without any stagnation of supply in the State. This may be ensured strictly.

The average power purchase cost in Rs.6.84/kWh during FY 2017-18. While the surplus power of 225.71 MU but not 207.74 MU was sold at an average cost of Rs.2.438/kWh during FY 2017-18 by incurring loss in every unit sold. Instead, had the power drawn to the actual requirement by proper planning this type of loss can be avoided.

Therefore, this practice of selling units at loss be discontinued forthwith. The loss on account of this surplus power sell cannot be passed on to the consumers partially, though Government subsidy is also absorbing to a greater extent. In future, the Commission will flag this kind of loss transactions and would disallow to pass it on to consumers from next year tariff determination.

Compliances:

Due to improvement in the UI mechanism, the Power purchased under UI decreased from 33.58 MU in FY 2016-17, 6.02 MU in FY 2017-18, 16.57 MU in FY 2018-19 and 9.56 MU in FY 2019-20. Further, sale of surplus power on IEX has been reduced from 207.74 MU in FY 2017-18 to 95.97 MU in FY 2019-20.

As MSPDCL has signed the long term PPA with CGPs for purchase of power, MSPDCL has to pay the fixed charges for total quantum and variable charges for quantum of energy drawl.

Due to increase in domestic consumers and hence sales, the surplus available energy is reducing. Further, the availability of power from CGPs is varying based on its availability and hydrology, especially for hydro projects. Also, the State's consumption is varying which is more in winter than other seasons. MSPDCL is now managing the variability by banking the electricity with trader when demand is low and CGPs are available (summer months). During winter season when demand is more than availability from CGPs the banked energy is used. MSPDCL has planned to slowly reduce the surplus sales to IEX. MSPDCL has always tried to utilize the banked energy for state consumption, especially in winter months. However, for some unforeseen reasons MSPDCL has to sale the same to exchange.

Commission's Comments

The MSPDCL shall work in perfect tandem with SLDC and plan for the energy requirement to suit and limit to their requirement and indiscriminate excess purchase of energy is very much undesirable even from the consumer point of view, who is ultimately bearing the financial burden for the improper inaction of the Department. Under any circumstances, the Outside State sales shall not exceed 40MU considering the unforeseen exigencies and uncertainties from 2021-22 onwards. This kind of any huge loss-making transactions will no longer be considered for true-up in future.

In future, the Commission will flag this kind of loss transactions and would disallow to pass it on to consumers from next year tariff determination if felt abnormal.

Directive 10: Unauthorized Connection/Theft of power Cases & Directive 11: Detailed Survey & Investigation

In the above two directives, the Commission had directed to carryout detailed survey & Investigation to

1. Identify unauthorized connections.
2. Physical verification of the connected load of all connections.
3. Physical verification of the categories under which the consumers are availing supply.
4. Verification & updating of names of the consumers etc. and 5. Regularize 30000 unauthorized consumers annually. Unauthorized connections shall be brought under billing once they are identified and regularized but not by prepaid metering plan. In either case physical verification of connections in only remedy.

Compliances:

The unauthorized connections and connected load are being taken care of under the pre-paid metering plan. MSPDCL has already achieved 100% pre-paid metering for EC-I. AB Cables are being used in LT supply to avoid the power theft. In EC-I around 90% LT lines are using AB cables.

For EC-II and EC-III, 100% per-paid metering will be achieved by the end of FY 2021-

22.
Physical verification drive shall be conducted in near future. MSPDCL is planning to conduct the same district /circle wise

Commission's Comments

All unauthorized connections should be identified and regularized with appropriate penalties as per the provisions of Electricity Supply Code in vogue. A vigorous drive should be pursued in this manner and progress achieved status shall invariably intimated to the Commission for each quarter within 15 days from such quarter completion. ***The non-compliance will be viewed seriously.***

Directive 12:

Replacement of Defective Meters and Installation of Meters to Un-Metered Connections

MSPDCL was directed to provide meters to all un metered consumers and replace the defective meters within the time frame given in the Commission Order Based on the availability of new energy meters, 100% replacement of No. 24012/2/5/09 – JERC dt 7.1.2011 on 100% metering plan and submit quarterly report regularly.

Compliances:

It is submitted that MSPDCL is allotting the New connection to the consumer only after installation of the Meter. List of Replacement of Defective Meters and installation of Meters to Un-Metered Connection is under consideration & will be submitted once finalized. Based on the availability of new energy meters, 100% replacement of defective meters shall be completed.

Commission's Comments

The reply is a stock reply (same as last year reply). It appears no action seems to have taken up in this matter so far since last year 2020-21 Tariff Order finalisation. **A report in this regard should be submitted by MSPDCL soon after the issue of this order without any delay.**

BALANCE DIRECTIVES ISSUED IN FY 2015-16

Directive 13: Physical and Financial Status of RAPDRP & RGGVY Schemes

As per above directive MSPDCL has to submit physical and financial progress of work done and the impact of the works on revenue performance and metering with details of work done, amount of revenue increases etc.

Compliances

The details of Physical and financial status of RAPDRP & RGGVY Schemes shall be submitted at the earliest possible.

Commission's Comments

The above compliance reply is a repetition reply similar to last year. Though, the Directive was issued to submit a status reply by May 2020. Explain, why this kind of disorientation on the part of MSPDCL be treated as disobedience and Commission awaits your explanation in this matter for taking further suitable action.

A report in this regard should be submitted by MSPDCL soon after the issue of this order without any delay.

Directive 14: Interest on Security Deposit

MSPDCL was directed to furnish up to-date position of interest on security deposit as per Regulation 6.10(5) of JERC (Supply Code) Regulations 2010. The above rule may be followed scrupulously.

The licensee shall intimate the amount of Security deposit amount being received every year to the Commission. Besides, this amount shall be taken into the tariff submissions while arriving at interest on working capital amount as per the provisions of the MYT Regulation 2014 as it is noticed that Licensee is not indicating this amount in their ARR calculations.

Compliances

The security deposits of pre-paid consumers who have been converted to post- paid have already been paid. However, for the post-paid consumers the security deposit is collected by MSPDCL. The interest earned on security deposit is considered in the ARR filing for FY 2020-21. The summary of security deposit is as follows:

Particulars	Amount (Rs Cr)
Opening balance as on 01.04.2018	14.066
SD received during 2018-19	0.749
Opening balance as on 01.04.2019	14.815
SD received during 2019-20 till Sept 2019	0.408
Balance as on 30.09.19	15.223

Commission's Comments

The directive is treated as complied with and hence dropped.

Directive 16: Investment Plan and Capping of Capital expenditure

Annual Investment Plan shall be submitted to the Commission and necessary approval of Commission shall be obtained for all major capital works costing Rs. 5.00 Crore and above before execution of the works. Whether it is own funds or Govt. funds no matter, all capital works costing Rs.5.00 Crore and above shall be submitted to commission for approval.

Compliances:

MSPDCCL has submitted the details of capital expenditure plan for purchase of 2 lakhs pre-paid meters and installation of high-mast lights in district headquarters.

Commission's Comments

All capital works costing Rs.5.00 crores and above shall have to be submitted to Commission for prior approval before the works are taken up. The source of funding is immaterial. A report is to be submitted by June 2021.

Directive 17:

Maximum Demand Indicator Meters (MDI) to be provided to all high value connections

Compliances:

The energy meters are having facility to record the Maximum Demand. The high value connections are having the MD record facility and hence MD recording is taken care of. (This is a replica of the last years reply without any change in verbatim)

Commission's Comments

The above reply is a replica of the last years reply without any change in verbatim and the Compliance of Directive can't be a ritual by nature and casual in attitude. Where is the detailed reply on HVC with MDI which was due on July 2020 and the reply has no relevance, what has been directed and MSPDCL behaviour is very much deplorable and testing the patience of the Commission lenient view.

Details of High Value consumers with MDI may be submitted by 15th June 2021.

Directive 18:

As verified from the Tariff Schedule, it is observed that unmetered categories are prevailing in all categories including HT. Continuance of HT connections without meters is highly irregular. As per Electricity Act, 2003 no service connection be released without meter. As such, the MSPDCL is directed to provide HT meters to all unmetered HT connections in the first instance and report compliance by 30.09.2016 positively.

In respect of LT categories, all unmetered connections be provided with meters by 31.03.2017. Progress and providing meters to unmetered connections be reported quarterly indicating category-wise number of unmetered connections at the beginning of the quarter and installed during the quarter and balance to be installed.

Compliance if fixing meters to all unmetered connections be repeated by 30.09.2019 positively.

Compliance Report:

In this regard it is submitted that MSPDCL is not allotting any new connection without installation respective meters. Further it is submitted that due to non-availability of energy meters the 100% energy metering could not be completed. MSPDCL shall put all its efforts to complete the 100% HT metering and the 100% LT metering. As mentioned earlier, MSPDCL is in process to purchase and install 2 lakh pre-paid meters.

Commission's Comments

The above compliance report is a facsimile of last year reply without any iota of change in words. This kind of replying by MSPDCL shall be eschewed forthwith and this may be treated as advance warning for avoidance of

Commission action for this derisory replying.

Metering of all consumers for proper revenue collection is of prime importance for the financial health of MSPDCL. All consumers are to be within 6 (six) months without fail.

The status report on this matter is still awaited by the Commission to know the progress achieved in the field ground reality.

DIRECTIVES ISSUED IN FY 2016-17

Directive 20: In house development of IT enabled system:

MSPDCL is directed to take steps for development of in-house IT enabled system so that all software issues can be attended/solved departmentally instead of depending on consultants.

Compliance Status

MSPDCL would like to inform the Hon'ble Commission that there has been progress in the in-house development of IT enabled system in the last one year. Some in-house developed IT platforms are already in operation to improve administrative processes. A few notable accomplishments are listed below.

- ✓ powernodue.com: It is a domain which has a database of all the employees along with their connection status. It incorporates a hassle free fast and efficient process of getting no-dues certificate.
- ✓ Indent: It is an IT enabled platform which facilitates and streamlines the approval process for despatch from store to field.
- ✓ Online prepaid recharge with e-wallets like NPCI Bharat Bill Payment System.

Furthermore, MSPDCL would like to state that it has bought Virtual Private Network and it is being planned to set up a physical server in one year to go digital with all the files available on one electronic platform. All these steps are guided towards making MSPDCL independent with its IT team and reducing dependency on consultants.

Commission's Comments

The above compliance report is a facsimile of last year reply without any iota of change in words. This kind of replying by MSPDCL shall be eschewed forthwith and this may be treated as advance warning for avoidance of

Commission action for this derisory replying.

The Commission desires that IT application should be provided in energy audit to reduce AT&C losses. **A report may be submitted in this regard by May 2020 is still awaited and not complied with during FY 2020-21**. The Status reply with reasons for delay in not sending earlier reply is expected by Commission on or before 15th June 2021.

Directive 21:

Updation of computerised billing program of power factor and rebate/surcharge

MSPDCL should up-to-date computerised billing programme to facilitate adoption of power factor rebate/surcharge as indicated in the tariff schedule.

Compliance Status

The computerised billing program for power factor rebate/surcharge is under progress. The HT cell of MSPDCL is undertaking the necessary steps towards installation of the program and it is expected to complete it in FY 2021-22.

Commission's Comments

The above compliance report is a facsimile of last year reply without any iota of change in words except FY 2020-21 to 2021-22. This kind of replying by MSPDCL shall be eschewed forthwith and this may be treated as advance warning for avoidance of Commission action for this derisory replying.

MSPDCL is taking pretty long time to accomplish in this matter and the IT Cell should complete this within 6 (six) months' time to reap its benefits but not for years to pass on.

The status report on this matter is still awaited by the Commission to know the progress achieved in the field ground reality.

Directive 22:

Installation of meters to all 11 kV feeders and DT's

MSPDCL should install meters for all 11kV feeder and DT's in all RAPDRP covered towns by 30.06.2016. Sample study should be conducted to know the highest feeder loss and highest DT loss and report be submitted to the Commission by 30.09.2016. Targeted sale (date) by which 100% metering of 11 KV feeders be achieved may be intimated in the first insistence.

Compliance Status

It is submitted that under RAPDRP Part-A 72 nos. of 11KV Feeder meters and 925 nos. of DT meters were installed. 100% DTC metering could not be completed due to non-availability of energy meters and the same shall be completed in FY 2020-21.

Commission's Comments

The above compliance report is a facsimile of last year reply without any iota of change in words except FY 2020-21 **to near future**. What's meant by **near future** without any deadline does it mean the MSPDCL is sceptic about the task accomplishment. This kind of replying by MSPDCL shall be eschewed forthwith and this may be treated as advance warning for avoidance of Commission action for this derisory replying.

The details of 11kV feeders, where the meters are installed may be reported along with monthly energy transmitted through the feeder for any consecutive period of 3 (three) months may be submitted by June 2020 **is still awaited and not complied with during FY 2020-21**. The status reply with reasons for delay in not sending earlier reply is expected by Commission **on or before 15th June 2021.**

DIRECTIVES ISSUED IN FY 2017-18

Directive 23

As per Regulations 2 (19) of JERC (M&M) (MYT) Regulations, 2014 the Second Control Period shall be five years from 01.04.2018. The MSPDCL is directed to submit the next ARR for Control Period from FY 2018-19 to FY 2022-23 and Tariff Petition for FY 2018-19 and true up petitions for FY 2015-16 and FY 2016-17 along with audited annual accounts for FY 2015-16 and FY 2016-17 invariably. Audited Annual Accounts for FY 2015-16 to FY 2015- 16 to FY 2017-18 along with revised true up petitions be submitted soon.

Compliance status

The audited balance sheet of MSPDCL for FY 2016-17, FY 2017-18 and FY 2018-19 are being prepared and will be made available soon. After finalization of audited accounts MSPDCL will submit the same for final true-up.

For FY 2015-16, the same has been submitted to Hon'ble Commission.

Commission's Comments

Audited -Annual Accounts for FY 2016-17 to FY 2017-18 along with true-up petition is pending. MSPDCL is directed to submit the same soon.
The Directive is treated as not complied with.

Directive 24

The MSPDCL is directed to submit the required information in the format prescribed in JERC M&M (MYT) Regulations, 2014 from next tariff petition onwards which are mandatory.

Compliance status

MSPDCL has submitted all the necessary required information in the format prescribed.

Commission's Comments

The tariff petition for FY 2021-22 shows it is irregularly prepared and don't capture all the prescribed information stipulated in the proformas prescribed in Regulations. The required formats as envisaged in JERC for M&M (MYT) Regulation are not submitted in full shape and the softcopy files were not made available. There are certain formats are printed from excel sheets partially just to fill the format and it is not what Commission wanted in the format submission **(format - P3 is an example)**. In future all the formats are to be given to the Commission the original files in soft form along with built in formulas for commission analysis without fail.

For example, there is no revenue collection details format prepared pertaining to 2019-20 actuals. **This way certain formats are suppressed to suit the convenience of the licensee but still tend to reply as complied with.**

The MSPDCL is advised to be careful in future so that this irregularity don't recur and have a look at the formats submitted by P&ED Mizoram for format adherence in future. The repetition of same issue consecutively is unwarranted in this format preparation and don't prefer to send evasive replies on this matter.

Directive 25

The Commission is of the view to introduce KVAH billing in energy charges to all HT categories and LT categories with contracted load 20 kWh and above with effect from FY 2018-19 onwards. The licensee is directed to see that all HT connections are provided with tri-vector/MDI meters for such connections without fail.

Compliance status

Please refer Directive -17.

Commission's Comments:

Refer to Directive-17 commission comments and report back.

The MSPDCL is directed once again to provide details of all HT consumers with required trivector/MDI meters.

Directive 26: <u>Accounting of Non-Tariff income</u> As per Form No.11 of JERC (M&M) (MYT) regulations, 2014, non-tariff income comprises:

	Particulars
A	**Income from Investments, Fixed and Call Deposit**
1	Interest Income from Investments other Contingency Reserves
2	Interest on Fixed Deposits
3	Interest from banks other than Fixed Deposits
4	Interest on (any Other items)
	Sub-total
B	Other Non Tariff Income
1	Interest on loan and advances to staff
2	Interest on loans and Advances to other licensees.
3	Interest on loan and advances to lessors.
4	Interest on Loans and advances to Suppliers/Contractors
5	Gain on sale Fixed Assets
-6	Income/Fee/Collection against staff welfare activities
7	Miscellaneous receipts
8	Meter Rent
9	Recovery from theft of energy.
10	Surcharge and Additional Surcharge.
11	Incentive due to Securitisation of CPSU Dues.
12	Misc. charges from consumers.
13	Delayed payment surcharge from consumers.
14	Any other subsidies/ grants other than u/s 65

	Particulars
15	Commission on collection of Electricity Duty for MCD
	Sub-Total
Total (A+B)	

MSPDCL is directed to account for the income relating to above heads in the respective heads and furnish the information in the format without omissions from next ARR.

Compliances:

MSPDCL has segregated the Non-Tariff income component as per the directive of the Hon'ble Commission and it has submitted the details accordingly in Provisional True-up Petition for FY 2019-20.

Commission's Comments

The Directive is treated as complied with and hence dropped.

Directive 27

MSPDCL is directed to fill up judiciously all Forms relevant to MYT Regulations viz. Appendix C,D and also submit year wise slab wise consumers, slab wise energy consumed and category wise total contracted load while submitting Tariff Petition for control period FY 2018-19 to 2022-23 to avoid additional information queries after submission of petition.

Compliances:

MSPDCL has filed up all the forms relevant to MYT Regulations along with year wise, slab wise consumers, slab wise energy consumed. MSPDCL has furnished all the data available as per the Directive along with the MYT Petition. The APR for FY 2020-21 and ARR for 2021-22 has been prepared and submitted in the present petition.

Commission's Comments

The replies to directives seem very pedantically and not referring to the Commission comments of last year where they were already dropped are being replied again is very deplorable and depicts the very casual attitude of the Licensee in this matter.

The Directive has been treated complied with in 2020-21 and hence it is dropped.

New Directives issued by Hon'ble Commission in its tariff order for FY 2018-19.

Directive 29

MSPDCL was directed to ensure the installation and energization of meters at all 11 kV feeders which is the inter-company boundary and the energy injection point from MSPCL to MSPDCL system for proper energy accounting. The Commission also directed that there should be monthly joint reading of the meters by MSPCL and MSPDCL.

Compliances:

It is submitted that MSPCL & MSPDCL have to nominate nodal officers with minimum rank of DGM and co-ordinate the exercise of joint feeder meter reading, every month and compile feeder wise energy sent out / received by MSPCL / MSPDCL for energy audit.

The joint meter readings are to be counter signed by the nodal officers. The Nodal Officer for joint metering from MSPDCL is nominated. At present provisional meter readings, subject to correction, are taken in the presence of the Substation Staff using CMRI.

Commissions Comments:

The details of first meter readings for 3 (three) consecutive months may be submitted **is still awaited by the Commission during FY 2020-21** and the Licensee is once again directed to submit the latest available status report on or before 30th June 2021 without fail and the non-compliance will be considered seriously.

Directive 30

MSPDCL and MSPCL were directed to conduct monthly joint meter reading of the 11 kV incoming meter (which is the injection point of energy from MSPCL to MSPDCL). MSPDCL was directed to complete installation and Energization of all 11 kV feeder meter by September, 2018 and calculate the energy injected by MSPCL to MSPDCL on monthly basis. MSPDCL was also directed to complete the DT metering by September, 2018 and conduct a case study of feeder-wise energy

loss for all 11 kV lines. The Hon'ble Commission further directed MSPDCL to come-up with LT line loss for individual DT fed LT lines.

The Licensee should submit compliance report in full shape by 15th July 2019 as the licensee has stated that all the metering installations would be completed by the end of 2018-19.

Compliances:

The monthly wise feeder wise energy report is required to be reconciled with MSPCL and SLDC report.

At present, energy accounting through DT metering could not be done due to the below reasons

- 100% DTR metering was not done under the scheme.
- Deactivation of GPRS connectivity for the installed modems attached to DTs due to unstable network.
- The exorbitant recurring charges for the installed systems

MSPDCL has been installing 11 KV feeder meters on priority basis. Due to not availability of meters the 100% metering could not be completed. MSPDCL shall submit the complete status of metering at the earliest possible.

Commission's Comments

The above compliance report is a facsimile of last year reply without any iota of change in words except **earliest possible**. This kind of replying by MSPDCL shall be eschewed forthwith and this may be treated as advance warning for avoidance of Commission action for this derisory replying and for not being attentive.

The detailed report is to be submitted by June 2020 is still awaited by the Commission. The recurring charges for the installed systems can be included in the ARR.

The Licensee is once again directed to submit the latest available status report on or before 30th June 2021 without fail and the non-compliance will be considered seriously.

Directive 31

The Commission is of the view to introduce kVAH billing in energy charges to all HT categories and LT categories with contracted load of 20 kWh and above with effect from FY 2019-20 onwards. The licensee is directed to see that all HT connections are provided with trivector/MDI meters for such connections without fail.

Targeted date by which KVAH billing will be introduced be reported by 30.06.2019.

Compliances:

Meter reading and billing for all the HT consumers has been started for kVAh measurement in line with the tariff order. All the HT consumer meters are having trivector / MDI meters.

The LT three phase consumers above 20 kW are having prepaid meters. They are being billed on kWh basis.

Commission's Comments

The above compliance report is a facsimile of last year reply without any iota of change in words. This kind of replying by MSPDCL shall be eschewed forthwith and this may be treated as advance warning for avoidance of Commission action for this derisory replying and for not being attentive.

Latest Status report may be submitted by May 2020 is still awaited by the Commission.

The Licensee is once again directed to submit the latest available status report on or before 30th June 2021 without fail and the non-compliance will be considered seriously.

Directive 33

MSPDCL was directed to submit reliable average slab-wise monthly energy consumption per consumer and number of consumer in each slab during the FY 2017-18 (Actual), FY 2018-19 (Revised Estimate based on last 6 months) and FY 2019-20 (Projection) along with the Petition for determination of ARR & Tariff for FY 2019-20 positively in respect of Kutir Jyoti, Domestic and Non-Domestic/Commercial under LT Categories. The Hon'ble Commission also directed to take necessary action immediately to make available the requisite data at the time of the Petition mentioned above.

The Licensee shall sincerely submit the above data with full details in the future submissions. In the FY 2019-20, due to the data inadequacy, Commission had to make lots of assumptions in estimating the consumer related data and the quantum of consumption and the contracted loads in the process of tariff design for the FY 2019-20.

Compliances:

MSPDCL has submitted the slab-wise consumption for Domestic and Commercial / non-Domestic categories for FY 2021-22 in the ARR Petition.

Commission's Comments:

The replies to directives seem very pedantically and not referring to the Commission comments of last year where they were already dropped are being replied once again is very deplorable and depicts the very casual attitude of the Licensee in this matter. The Directive has been treated complied with in 2020-21 and hence it is dropped.

New Directives issued in FY2019-20

Directive 34: Reduction of consumption slabs in Domestic and Commercial Categories of consumers:

The Licensee shall reduce the number of consumption slabs in the following categories in the next year tariff filing proposals:

(a) LT domestic from three slabs to two slabs.

(b) LT Commercial from three slabs to two slabs.

Compliance of Directives:

There are only three existing tariff slabs for LT domestic/LT commercial category. It aptly captures the sales and the consumer details of all the LT domestic/commercial consumers. Further reduction of tariff slabs may not facilitate the utility to envisage the slab wise consumption for future projections. Moreover, most state DISCOM in the country has minimum three tariff slabs in LT domestic/commercial category and followed telescopic tariff, like MSPDCL. Therefore, we humbly request the Hon'ble Commission to allow us to continue with three tariff slab of LT domestic/commercial category.

Commission Comments:

The replies to directives seem very pedantically and not referring to the Commission comments of last year where they were already dropped are being replied once again is very deplorable and depicts the very casual attitude of the Licensee in this matter. The Directive has been treated complied with in 2020-21 and hence it is dropped.

Directive 35

Licensee shall submit the detailed information on the following items latest by 15th August 2019:

a) Details of year wise pre-paid meters purchased so far with copies of supply/work order since the adoption of the pre-paid metering system.

b) Year- wise installation of pre-paid meter since adoption of the pre-paid metering system.

c) Circle wise installation of pre-paid meters giving details of sub-division with category wise consumers with activated pre-paid meters.

d) Report on the year wise impact of pre-paid metering in the billing efficiency and collection efficiency of:

1) Sub-division, Division and Circle since the adoption of prepaid meters.

2) Up to date circle wise, Division/Sub-division list of consumers with activated/inactivated prepaid meter.

3) Plan and target date for installation and activation of pre-paid meter to all the consumers under MSPDCL.

Compliance of Directives:

MSPDCL is collecting the data and shall submit the same at the earliest possible

Commissions Comments:

The above compliance report is a facsimile of last year reply without any iota of change in words. This kind of replying by MSPDCL shall be eschewed forthwith and this may be treated as advance warning for avoidance of Commission action for this **derisory replying and for not being attentive.**

It is surprising to the Commission that even after a year of issue of the directive, no compliance is submitted. The Information should be submitted by June 2020 is still awaited by the Commission.

The Licensee is once again directed to submit the latest available status report on or before 30th June 2021 **without fail and the non-compliance**

will be considered seriously.

Directive 36

MSPDCL should work out strategy to arrive at slab-wise energy consumption per consumer per month in respect of domestic and commercial categories. The average number of consumers consuming electrical energy in the first slab, second slab and third slab in domestic and Commercial categories respectively should be submitted along with their tariff petition for FY 2020-21 positively for proper assessment of revenue projection.

Compliances:

Based on current estimates, MSPDCL has projected the slab wise consumption for FY 2021-22 and incorporate in the current Petition.

Commission's Comments

The data base Information so gathered pertaining to FY 2020-21 and 2021-22 should be submitted by 1st June 2021 as the same reply is still awaited by the Commission from FY 2020-21 onwards.

Directive 37

MSPDCL should vigorously take up consumer metering either in Postpaid/Prepaid mode not only in valley but also in hilly areas, 100% metering should **be achieved within September 2019.** This will lead to meaningful consumption of Energy and fruitful consumer awareness campaign in hill areas and plain areas. This will also reduce un-accounted energy and Distribution losses of the DISCOM.

Compliances:

MSPDCL is collecting the data and shall submit the same at the earliest possible. Recently, MSPDCL has initiated the task to purchase 2 lakhs pre-paid meter and obtained the State Government approval for the project. Tender is published. Selection process is ongoing.

Commission's Comments

The latest status should be submitted by May 2020 is still not submitted to the Commission perusal and the Licensee shall submit the status report with up to date information by 15th June 2021.

Fresh Directives in FY 2020-21 based on ARR Submission

1. **Distribution Losses & Outside State sales**

"The MSPDCL shall invariably submit the details to the Commission on 15th of each month following the month in which the quantum of energy input/received by each circle and also the quantum of energy sold in the relevant month by each circle separately for each of the twelve (12) months promptly starting from April to March without fail. The information so furnished by the licensee would form the basis to arrive at the Distribution losses incurred by the MSPDCL in the entire year for truing-up purpose in future. Besides, the Licensee shall also submit the details of the quantity of Outside state sales achieved in each month starting from April to March for record along with the Circle wise sales information."

Compliances:

Currently, circle wise input data is difficult to submit by MSPDCL as metering is available at circle level. Meters are not installed even at T-D level. MSPCL and MSPDCL is working on the same to install meter at appropriate sub-station / feeder level as directed by Hon'ble Commission. Sales data is not available promptly after each month as most of the meters are pre-paid meter and MSPDCL has no mechanism of collecting the consumption data for each consumer. As centralised data of energy sales, customer wise, is not available, it is difficult to submit the same. MSPDCL estimates the energy sales (pre-paid customer) after completion of the year based on consumers' recharge information. Therefore, MSPDCL submits that overall sales data can be submitted quarterly, after reconciliation.

Commission's Comments

The incapability expressed as above by the MSPDCL in submitting the required Circle wise sales and energy input data clearly depicts that the category-wise sales and distribution losses projected for FY 2020-21 and FY 2021-22 are not having any base or accuracy and can't be relied upon as the true reflection of Licensees performance anymore even after attained the Corporate status in 2014. This is a very pathetic condition clearly expressed by the Licensee in this year. Under these circumstances, how would the licensee fulfil the REC-Tranche-II pre-condition of "***A plan, endorsed by the***

State Government in consultation with Ministry of Power, to bring down their AT&C losses and ACS-ARR gap over the next three to four years”. Explain?

The Directive is still in force and needs compliance.

2. Levy of penalties for non-payment of long pending revenue dues

The Commission feels, that the imposing of penalties/late payment surcharges is not happening at the level expected and unless penalties are strictly imposed the revenue collections is bound to be poor and the Organisation will have to face financial crunch on account of their own inaction. This is not a healthy practice and MSPDCL shall take serious note of the situation and order for intensive special revenue collections drive and see that these huge dues from sale of power comes down very soon by drawing an action plan and intimate the same to the Commission by end of June 2020.

Compliances:

MSPDCL imposes late payment surcharge as per order in force. The same is added in the respective consumer bills. In case of pre-paid payment, some amount is adjusted first with older dues and remaining is used as amount available for consumption. However, the share of old dues, at the time of company formation, is significant in total revenue dues. The same may be written-off and MSPDCL is pursuing the same with State Government.

Commission’s Comments

Where is the Action plan report called for by the Commission on or before June 2020? The reply has addressed this aspect and making unwarranted suggestions. Submit the said report without fail before 30th June 2021. The inaction on non-submission will be viewed seriously. **The Directive is still in force and needs compliance.**

3 Adopting Merit Order Despatch technique in Power purchases to minimise cost of power purchase and reduce the surplus power for sale

It is observed that the MSPDCL is procuring the quantum of power purchase which is much more than their state sale requirement. They are resorting to selling these surplus quantities in the outside state sale through IEX at a loss of above

Rs.1.20/kWh for each such unit sold. This is will erode the profitability of the organisation due to excess payment for power purchases and also to absorb the loss sustained due to Outside state sale for each unit sold.

The Licensee shall follow the merit order despatch principles judiciously or limit to their minimum off-take of energy which is costly in each month so as to minimise the power purchase cost and to pass on any such benefit of gains to the consumers and at the same time they are directed to keep the Outside State sales quantity to the least possible level all the time.

In this regard, the MSPDCL is directed to review their power purchase quantity agreements with all the Central generating and neighbouring state power generators and limit the minimum off-take quantity to the reasonable quantities of requirement and report the compliance latest by 15th September 2020 positively.

Compliances:

It is respectfully submitted that MSPDCL is strictly following the Merit Order Despatch technique. MSPDCL regularly submits the merit order to SLDC considering the power purchase cost of each project. Higher procurement is required in the summer months, when state mand is low, to banked the energy. In winter months, i.e. high demand season, the same can be utilised through import of banked energy. The same fact can be checked from actual monthly data for FY 2019-20 as submitted with this Petition. The outside state sales, through exchange (not banking), occurs due to sudden reduction of state demand, which is difficult to estimate. MSPDCL tries to optimize the power purchase cost to pass the benefits to the consumers.

Commission's Comments

Explain with reason for preferring IEX purchase to the tune of 18.50MU and also the need for UI overdrawal of 9.56MU despite having the banked energy availability in 2019-20 to the tune of 214.04MU in hand. During 2019-20, the energy excess purchased over and above the requirement of State was only 15.56MU, but the Outside sales was to the level of 95.97MU due to contributions from banked energy and UI drawals. This transaction appears, that there was no need for IEX Purchases or UI over drawl in 2019-20. It is also observed that during 2020-21 also the energy purchases projected resulted in 116.43MU from CGS purchases itself and in the case of 2021-22 it was projected close to 110.05MU.

The explanation given above doesn't match with the realistic situation as depicted in the ARR submission and Commission is not convinced with the compliance reply and still feels that MSPDCL shall do a lot in curtailing the excess quantum of purchase unnecessarily. This will not only burden the general public but also burdens the State Government Exchequer adversely in the subsidy form. This issue needs top-priority and take steps to minimise purchases from costly CGS stations and can also think of surrendering the excess quota from CGS with due discussions with State Government on this issue.

4 Levying of the applicable charges in the case of Mixed Loads services:

Where any part of the connection given under one specific category, it shall not be utilized for any other purpose other than for which it is released that involves different higher applicable rate in the tariff schedule. A separate connection shall have to be taken invariably for such other loads/purpose under appropriate category, failing which the entire consumption (i.e., existing category consumption and additional consumption for different purpose) shall be billed in the category of consumption that corresponds to a higher applicable tariff for which any part of that connection is utilised.

Compliances:

MSPDCL noted the directives given by Hon'ble Commission and working as per the direction. MSPDCL prepares the bills according to consumer category.

Commission's Comments

Report the number of cases detected during FY 2020-21 and the additional revenues realised if any.

5 Levy of rebate/surcharge on availing supply at a voltage higher/lower than the applicable base load.

In dealing with such consumption loads, the billing shall be made strictly as per the clause 1.1 as stipulated under general conditions of supply in Tariff Schedule.

Compliances:

MSPDCL noted that billing shall be made strictly as per the clause 1.1 as stipulated under general conditions of supply in Tariff Schedule and following the same.

Commission's Comments

Report the number of cases detected during FY 2020-21 and the additional revenues realised if any.

6 Conducting of Energy Audit & keeping proper metering system in place

The MSPDCL shall also conduct system studies and energy audit after proper assessing of metering systems kept into operation. Further, segregation of technical and commercial loss has to be completed without any plausible excuses and ***initial report on these issues be submitted to Commission on or before end of September 2020.***

Compliances:

MSPDCL submits the without proper metering the energy audit cannot be conducted. Consumer side meter is available but DT/ sub-station level metering is low. Under various ongoing schemes, MSPCDL has installed some meters. Another major issue is fund crunch. MSPDCL will try to complete this exercise after getting sufficient fund in this regard.

Commission's Comments

The reply on this issue from Licensee is unexpected at this juncture even after it has become Corporate company since 2014 and the basic problem left unattended. The Licensee shall submit the action plan being made to resolve this fundamental issue and also specify as to how it is going to manage the financial fund crunch without leaving the problem to perpetuation by 1st August 2021 on top priority.

Fresh Directives on ARR submissions in FY 2021-22

Directive No.1:

a) Submit the total Outstanding Arrears payable to various CPSCU Gencos & Transcos, IPPs and RE Generators individually along with yearly accumulated dues in the past and the constituent penalties and late payment charges break-up details separately for which the **Special Long-Term Transition Loans to DISCOMS for COVID-19 is being availed for an amount of Rs.111.48Crs.**

b) Besides, also submit a detailed report duly indicating the actual amounts drawn and dates of drawal for each tranche to the Commission latest by 16th June 2021 for record purpose.

c) The proposed Loan amortisation schedule may also be submitted. If the Interest is payable along with Tax, indicate the applicable Tax rate being adopted for in each disbursement to be made to the REC/PFC as per the loan agreement entered with.

Directive No.2

Availing of REC Loan amount obtained for procurement of 2 lakhs prepaid meters: Submit the Loan amortisation schedule proposed for at the time of availing the loan and details of loan drawal amounts along with dates of drawal. Also, provide the following details relating to the loan:

i) Is the repayment of interest being on monthly resting or annually?
ii) Interest calculation if payable based on 365 days based or 12 months based. What's is the tax rate payable along with interest if so provide the relevant details.

Directive No.3

Availing of Rs.15.67crs from REC for installation of Street Lights and High Mast Lights: Submit the Loan amortisation schedule proposed for at the time of availing the loan and details of loan drawal amounts along with dates of drawal. Also, provide the following details relating to the loan:

i) Tenure of the loan repayment and period of moratorium
ii) Is the repayment of interest being on monthly resting or annually and applicable rate of interest of loan at which it is availed?
iii) Interest calculation if payable based on 365 days based or 12 months based. What's is the tax rate payable along with interest if so provide the relevant details.
iv) The entire project execution cost is Rs.17.5071 crs, while the principle loan amount is only Rs.15.67crs. How the differential uncovered gap of Rs.1.84crs is being managed by the MSPDCL in this aspect.
v) The Cost benefit analysis for the loan availed is not described in detail in the ARR filing submission. What is the interest burden (Rate of Interest and monthly/Quarterly amount payable) towards this loan amount consequent on its availing?

Directive no.4:

Kutir Jyoti: Provide the details of number of consumers who exceeded 45 kWh in the last 3 months were actually converted to L.T Domestic consumers during the FY 2020-21 and 2021-22.

Directive No.5:

Unmetered Supplies: Report number of consumers detected under the unmetered supplies in the past from 2019-20 onwards and the details of revenue collected from such consumers. Also submit the corrective actions initiated/taken to prevent such consumers from resorting to theft of energy again.

Directive No.6

Consumer Contribution accumulated amount: Besides, the details of amount collected from consumer contributions possessed by the MSPDCL ever since the inception of the corporation in 2014 shall be submitted to the Commission each year-wise by end of June 2021.

Directive No.7

The MSPDCL is directed to file at least three true-up petitions in chronological sequence of those financial years which are pending for submission along with full-fledged audited Accounts before filing next tariff petition for FY 2022-23 without any further delay.

Directive No.8

The MSPDCL shall also conduct system studies and energy audit after proper assessment of metering systems in operation. Further, segregation of technical and commercial loss has to be completed without any plausible excuses and ***initial report on these issues be submitted to Commission on or before end of August 2021.***

Directive No.9:

It is necessary that the Licensee should chalk out a constructive & strategic plan to curtail distribution losses in FY2021-22 and submit such action plan to the Commission with an assurance to achieve before end of 30th June 2021 (pg-89 FY 2021-22).

11. Fuel and Power Purchase Cost Adjustment

11.1 Background

Section 62 sub-section 4 of the Electricity Act, 2003 provides that no tariff or part of any tariff may ordinarily be amended, more frequently than once in every financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified. This provision of the Act requires the Commission to specify the formula for fuel surcharge.

Accordingly, the Commission has specified the formula for working out the Fuel and Power Purchase Cost Adjustment (FPPCA) charges and other terms and conditions of FPPCA allowed the distribution licensee to recover the FPPCA charges from the consumers.

Accordingly, the amount of Fuel and Power Purchase Cost Adjustment (FPPCA) charges shall be computed as under:

$$\text{FAC (Rs./kWh)} = \frac{Q_c(RC_2 - RC_1) + Q_0(RO_2 - RO_1) + Q_{pp}(R_{Pp2} - R_{pp1}) + V_z + A}{(QP_{g1} + Q_{pp1} + Q_{pp2}) \times \left[1 - \frac{L}{100}\right] - PSE} \times 100$$

Where,

Q_c = Quantity of coal consumed during the adjustment period in Metric Tons (MT).

= (SHR X Q_{pg}) (1+TSL) X 1000/GCV, or actual whichever is less.

R_{c1} = Weighted average base rate of coal supplied ex-power station coal yard as approved by the Commission for the adjustment period in Rs./MT

R_{c2} = Weighted average base rate of coal supplied ex-power station coal yard for the adjustment period in Rs./MT

Q_o = Actual Quantity of oil (in KL) consumed during the adjustment period or normative oil consumption as per Tariff order whichever is less.

R_{o1} = Weighted average base rate of oil ex-power station (Rs./KL) approved by the Commission for the adjustment period.

R_{o2} = Weighted average actual rate of oil ex-power station supplied

(Rs. / KL) during the adjustment period.

Q_{pp} = Total power purchased from different sources (kWh) = Qpp2+Qpp3

Q_{pp1} = Q_{pp3} $\left[1 - \frac{TL}{100}\right]$ in kWh

TL = Transmission loss (CTU) (in percentage terms).

Q_{pp2} = Power Purchase from sources with delivery point within the state transmission or distribution system (in kWh)

Q_{pp3} = Power Purchase from sources on which CTU transmission loss is applicable (in kWh)

R_{pp1} = Average rate of Power Purchase as approved by the Commission (Rs./kWh)

R_{pp2} = Average rate of Power Purchase during the adjustment period (Rs./kWh)

Q_{pg} = Own power generation (kWh)

Q_{pg1} = Own Power generation (kWh) at generator terminal – approved auxiliary consumption

L = Percentage T&D loss as approved by the Commission or actual, whichever is lower.

SHR = Station Heat Rate as approved by the Commission (Kcal / kWh)

TSL = Percentage Transit and Stacking Loss as approved by the Commission

GCV = Weighted average gross calorific value of coal as fired basis during the adjustment period (Kcal / Kg)

V_Z = Amount of variable charges on account of change of cost of unknown factors like water charges, taxes or any other unpredictable and unknown factors not envisaged at the time of Tariff fixation subject to prior approval of the Commission (Rs.)

A = Adjustment, if any, to be made in the current period to account for any excess / shortfall in recovery of fuel of Power Purchase cost in the past adjustment period, subject to the approval of the Commission (Rs.)

PSE = Power sold to exempted categories (presently agriculture and BPL-Kutir Jyoti consumers)

If there are more than one power station owned by the Licensee Qc, Rc1, Rc2, Qo, Ro1, Ro2, Qpg and Qpg1 will be computed separately for each power station and sum of the increase/decrease of cost of all power stations shall be taken into consideration.

In case of the two distribution companies, there is no generation of their own. Therefore, Qc, Qo and Qpg1 will be zero in this case.

The Generating Company can levy FPPCA charges with the prior approval of the Commission.

Terms and conditions for application of the FPPCA formula

1) The basic nature of FPPCA is 'adjustment' i.e. passing on the increase or decrease in the fuel costs and power purchase cost, as the case may be, compared to the approved fuel costs and power purchase costs in this Tariff Order.
2) The operational parameters/norms fixed by the Commission in the Tariff Regulations/Tariff Order shall be the basis of calculating FPPCA charges.
3) The FPPCA will be recovered every month in the form of an incremental energy charge (Rs/kWh) in proportion to the energy consumption and shall not exceed 10% of the approved avg. cost of supply in the Tariff order and balance amount, if any, in the FPPCA over and above this ceiling shall be carried forward to be billed in subsequent month.
4) Incremental cost of power purchase due to deviation in respect of generation mix or power purchase at higher rate shall be allowed only if it is justified to the satisfaction of the Commission.
5) Any cost increase by the licensee by way of penalty, interest due to delayed payments, etc. and due to operational inefficiencies shall not be allowed.

6) FPPCA charges shall be levied on all categories of consumers.
7) Distribution licensee shall file detailed computation of actual fuel cost in Rs./kWh for each month for each of power stations of the state generators as well as cost of power purchase (Fixed and Variable) from each source/station and a separate set of calculations with reference to permitted level of these costs.
8) The data in support of the FPPCA claims shall be duly authenticated by an officer of the licensee, not below the rank of Chief Engineer on an affidavit supported with the certified copy of energy bills of power purchase, transmission and RLDC charges, bill for coal purchase and its transportation cost, oil purchase bill and the quantity of coal and oil consumed during the month.
9) Levy of FPPCA charge will be allowed only when it is ten (10) paise or more per unit. If it is less than 10 (ten) paise/unit, the same may be carried forward for adjustment in the next month.

The incremental cost per kWh due to this FPPCA arrived for a quarter shall be recovered in the energy bill of the month subsequent to the order of the Commission approving FPPCA with full details of rate and unit(s) on which FPPCA charges have been billed. The Generating Company and the Distribution Companies shall provide along with the proposal of FPPCA (as applicable to them) for a quarter, a compliance report of the previous order of the commission in respect of FPPCA.

TARIFF SCHEDULE

Appendix

Tariff Schedule

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 all consumers provided with prepaid energy meters.

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

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

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

(iii) All voltages mentioned above are nominal rated voltages as per clause 3.2 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013.

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

However, part payment is subjected to acceptance by the competent authority. Bank commission/charges, if any, should be borne by the consumers.

1.4 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).

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

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

1.7 Voltage and frequency: All voltages and frequency shall be as per clause 3.1 and 3.2 of the JERC for Manipur & Mizoram (Electricity Supply Code) Regulations, 2013.

1.8 Power Factor Incentive / Surcharge: -

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

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

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

c) If 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 average monthly power factor falls below 85%	**Two percent (2%) of the total amount of the bill under the head 'energy charge'.**

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

e) For this purpose, the "average monthly power factor" is defined as the ratio of total '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 being 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 connection, and if he maintains the average monthly power factor in subsequent three months at not less than 90%, then the surcharge billed on account of low power factor during the said period, shall be withdrawn and credited in next month's bill

1.9 Transformation loss: The consumers getting their supply at HT and metered on the LT side shall be charged transformation loss in kWh as per clause 5.7 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:

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

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

(2) The transformer loss arrived at by the above formula shall be added to the energy consumption, even when the recorded energy consumption is nil.

(3) 1% of the transformer capacity for transformer above 63 KVA will be added to the recorded maximum demand on the Low-Tension side to arrive at the equivalent High-Tension demand.

1.10 Rounding of Contracted Load/Billing demand: For the purpose of calculation of fixed/demand charge in the monthly billing, the contracted load/billing demand shall be taken on actual basis (not to be rounded), except for load less than 500 W. Load less than 500 W shall be taken as 0.5 kW for calculation of fixed/demand charge in the monthly billing. **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.

Sample 1: - Fixed charge = 1.24 x 60 = Rs 74.40 = 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.

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

1.12 Mixed Load: - Any part of the connection given for one specific category should not be utilized for any other purpose, involving higher rate of charge in the tariff. A separate connection shall have to be taken invariably for such loads/purpose under appropriate category, failing which the entire consumption (i.e., existing category consumption and additional consumption for different purpose) shall be billed in that corresponding category at higher applicable tariff for which any part of that connection is utilised.

1.13 System of supply:

1.13.1 LT Supply:

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

ii) Alternating current, three phase, 400 Volts for loads above 8 kW **up to**50 kW. wherever 3-phase connection is required for load less than or equal to 8 kW,

iii) Alternating current, three phase, 400 Volts for loads above 8 kW **up to** 50 kW. Wherever 3-phase connection is required for load less than or equal to 8 kW, necessary justification shall be provided along with such request for consideration of licensee for extending such supply.

1.13.2 HT Supply:

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

1.13.3 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.

1.13.4 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: -

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."

1.13.5 Government Subsidy: Section-65 of E.Act 2003 is hereby reproduced –

" Provision of subsidy by State Government:- ***If the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the State Commission under section 62, the State Government shall,***

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

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

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 in those relevant month or months when subsidy was not paid in advance. Given the situation, the entire excess amount so charged to all consumers on account of full cost tariff adoption shall have to be refunded as deduction by treating such excess amount laying with Licensee **as advance payment** by the licensee **at one time** in the immediate monthly billing cycle where bills are being issued to respective consumers soon after receipt of such 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.

1.13.6 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.

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

2. Subsidised Tariff for LT Supply: -

2.1 LT Category -1:- KutirJyoti/ 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 supersedes by other new norms of KJS, if the total consumption in the last three months exceed 45 kWh, the connection should be converted to LT Category-2 (Domestic).

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

Tariff Rates:

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

B) Energy charge per month:

Metered Supply:

All Unit	@ Rs 2.10 per kWh

Note: 1- if the total consumption of any consecutive three months is more than 45 kWh, the consumer shall be re-categorised/converted under normal domestic category permanently from the very $1^{st}/2^{nd}$/3rd month of that consecutive three months, if the total unit consumed exceed the specified limit of 45 kWh from that instance and the bill be served as domestic category. (clause 4.90 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments may be referred to.)

Note 2: In case a Kutir Jyoti /BPL consumer gets converted to a domestic consumer, the re–categorised/converted consumer shall be required to deposit load security/meter security as applicable for domestic consumers but should not contradict clause 5.9 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with latest amendments*.*

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.*** 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 65.00 per month per kW of contracted load

B) Energy charge per month: -

Metered Supply:

First 100 kWh	@ Rs.5.10 per kWh
Next 100 kWh	@ Rs 5.95 per kWh
>200 kWh	@ Rs 6.75 per kWh

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

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

Applicability: This tariff is applicable to all lights, all types of fans, heating devices, Television, VCR/VCP, Radio, Refrigerator, Air Conditioner, lift motors, pump and all other appliances for the purpose of private gain including other small power.This tariff includes power loads for non-domestic purposes like Government/semi-government/non-government offices, shops, hospitals, nursing homes, clinics, dispensaries, health centres, restaurants, bars, hotels, clubs, guest houses, circuit houses/rest houses, tourist lodges, picnic spots, resorts, farm/garden houses, clubs, markets, optical houses, public buildings, community halls, stadiums, meeting/conference halls, religious premises like churches, temples, mosques, gurudwaras, religious offices, all types of studios, tea stalls, professional chambers (like Advocates, chartered Accountants, consultants, Doctors, etc.), private trusts, marriage halls, public halls, show rooms, centrally air-conditioning units, commercial establishments, X-ray plants, diagnostic 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 85.00 per month per kW of contracted load.

B) Energy charge per month: -

Metered Supply:

First 100 kWh	Rs. 6.55 per kWh
Next 100 kWh	Rs. 7.25 per kWh
> 200 kWh	Rs. 7.65 per kWh

2.4 LT Category-4: - Public Lighting

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

Tariff Rates:

A) Fixed Charge: Rs 70.00 per month per kW of contracted load.

B) Energy charge per month: -

Metered Supply:

All units	@ Rs.9.55 per kWh

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 105.00 per month per kW of contracted load.

B) Energy charge per month: -

Metered Supply:

All units	Rs 9.80 per kWh

2.6 LT Category-6:- Irrigation & Agricultural

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

Tariff Rates:

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

B) Energy charge per month: -

Metered Supply:

All units	Rs 4.55 per kWh

2.7 LT Category-7:- Small Industry

Applicability: Applicable to all Industrial power consumers with demand of power upto 50 kW which are not covered by Category No.-3 (Supply of Non-Domestic/Commercial Purposes), such as steel fabrications, motor body builders, power handloom industry, poultry farming, pisciculture, prawn culture, floriculture in green houses, mushroom production, cold storage units, agriculture based industries, horticulture and any other type of industry where raw material is converted into finished products with the help of electrical motive power, printing press, etc. This will include domestic or commercial within the industrial complex.

Tariff Rates:

A) Fixed Charge: Rs 70.00 per month per kW of contracted load.

B) Energy charge per month: -

Metered Supply:

All units	@ Rs 4.85 per kWh

3. Subsidized Tariff for HT Supply: -

The tariffs are applicable for Consumer availing supply at voltage above 400 V irrespective of connected load/contracted demand. It is mandatory to supply with voltage above 400 V, to consumer having a contracted Load of above 50 kW or Contract Demand of above **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 Category-3 Supply for Commercial Purposes.

Tariff Rates:

A) Demand Charge: Rs. 105.00 per month per kVA of Billing Demand.

B) Energy charge per month:

Metered Supply:

All units	@ Rs.8.75 per kWh

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 105.00 per month per kVA of Billing Demand.

B) Energy charge per month: -

Metered Supply:

All units	@ Rs 9.50 per kWh

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

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

Tariff Rates:

A) Demand Charge: Rs 105.00 per month per kVA of Billing Demand.

B) Energy charge per month: -

Metered Supply:

All units	@ Rs 4.75 per kWh

3.4 H.T. Category - 4: Medium Industry

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

Tariff Rates:

A) Demand Charge : Rs 105.00 per month per kVA of Billing Demand.

B) Energy charge per month: -

Metered Supply:

All units	@ Rs 7.20 per kWh

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 105.00 per month per kVA of Billing Demand.

B) Energy charge per month: -

Metered Supply:

All units	@ Rs 8.80 per kWh

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 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 105.00 per month per kVA of Billing Demand.

B) Energy charge per month: -

Metered Supply:

All units	@ Rs 8.80 per kWh

4. Full Cost Tariff (i.e., Without Govt Subsidy) for FY 2021-22

Sl. No	Category & Consumption Slab	Fixed Charges (Rs./kW or kVA/pm)	Energy Charges (Rs./kWh or kVAh)
	LT SUPPLY		
1	**Kutir Jyoti**	**Rs./Connection**	**Rs./kWh**
	All units (Upto 45 kWh/ 3 Months)	25/Connection	8.78
2	**Domestic**	**Rs./kW**	**Rs./kWh**
	First 100 kWh/Month	65	9.56
	Next 100 kWh/Month	65	10.17
	Above 200 kWh/Month	65	10.70
3	**Non-Domestic/Commercial**	**Rs./kW**	**Rs./kWh**
	First 100 kWh/Month	85	11.21
	Next 100 kWh/Month	85	11.47
	Above 200 kWh/Month	85	11.52
4	Public Lighting	70	13.36
5	Public Water Works	105	13.08
6	Irrigation & Agriculture	65	10.29
7	Small Industry	70	11.15
	HT SUPPLY	**(Rs./kVA)**	**(Rs./kVAh)**
8	Commercial	105	10.86
9	Public Water Works	105	11.52
10	Irrigation & Agriculture	105	9.25
11	Medium Industry	105	10.24
12	Large Industry	105	10.56
13	Bulk Supply	105	11.55

5. Temporary Power Supply

Applicability: Temporary power supply shall be given through correct meter and carried out as per procedure laid down in clause 4.56 to 4.70 of the JERC for Manipur

& Mizoram (Electricity Supply Code) Regulations, 2013 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.

6 Computation of energy consumed for un-metered supply:

6.1: 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 appropriate and correct meter. Therefore, after the lapse of many more years from the effective date of the EA 2003 and after lapse of several years from effective date of the said 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.

6.2: Short period of unmetered supply: - For un-meter (meter not available) supply as a result of defective, burnt, lost meter shall be treated as per 6.11 – 6.13 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with up to date amendments.

6.3: **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 0f the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 along with upto 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 utilized.

(2) **Second and subsequent instance:** - Six (6) times of the rate of the applicable tariff (fixed and variable charges) for which the stolen energy was utilized.

(**b) Load exceeding 10 kW**

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

(2) Second and subsequent instance: - Six (6) times of the rate of the applicable tariff (fixed and variable charges) for which the stolen energy was 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 latest amendments.*

7. Miscellaneous Charges

7.1 Meter Rent

7.1.1 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**

7.1.2 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,	**Rs. 20.00 per month**

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

7.2. Pole/Tower usage charge per month

7.2.1 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.

7.3 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.

(2) Free of cost if shifting is done in the interest to licensee. Required material to be borne by licensee.

Meter shifting shall be carried out as per Chapter – 5 of the JERC for Manipur and Mizoram (Electricity Supply Code) Regulations, 2013 with 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 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 manufacturing defect or fault of licensee then, it shall be free of cost.

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

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

In case the meter 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.

7.5 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.

7.6 Disconnection and Reconnection

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

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

Sl.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 required will be chargeable.

7.7 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.

7.8 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-:

Sl.No	Description	Execution charge
(a)	Single phase connection	**Rs. 400.00** per connection.
(b)	Three phase connection	**Rs. 600.00** per connection.
(c)	HT three phase connection	**Rs. 900.00** per 100 meters of the HT line.

(2) For Cut-Out & Fuse: -

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

(3) For Replacement of meters

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

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

7.9 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.

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

7.11 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/-**

7.12- 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.

7.13 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.

7.14 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.

7.15 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.

7.16 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.

ANNEXURES

ANNEXURE - I

MINUTES OF THE 21st MEETING OF THE STATE ADVISORY COMMITTEE OF MANIPUR

Venue: Dynasty Hall, Hotel Classic Grande, Imphal, Manipur
Date & Time: 15th April 2021, 11:00 AM

Er. Lalchharliana Pachuau, Chairperson and Chairman of the Committee welcomed the Members and participants who attended the Meeting. The list of Members and Participants attending the meeting is also appended below:

Agenda 1: Confirmation on the minutes of the 20th Meeting of State Advisory Committee Meeting, Manipur held on 24.02.2020 and copy at Annexure 'B'.

After obtaining nods from the Members, the Chairman declares that the Minutes of the 20th Meeting as confirmed.

Agenda 2: Action taken report on the Minutes of the 20th Meeting of SAC, Manipur:

i) The Committee recommended that the audit of Annual Accounts of the pending years should be completed by June, 2020.

The MSPCL comments that for FY 2016-17 has been completed and is now with Statutory Audit. The Company has already furnished all the information sought by Statutory Audit; and is expected to be finalized within April, 2021.

For FYs 2017-18, 2018-19 and 2019-20 the Accounts have been completed and will be submitted to Statutory Audit after the Accounts of 2016-17 is finalized by Statutory Audit.

The finalization of accounts has taken time due to imposition of lockdowns in the State due to covid-19 pandemic. The Company assured that the Accounts be audited and finalized at the earliest.

The MSPDCL informed the committee that the Audited balance sheet for FY 2014-15 approved by CAG is already in place and submitted to the Hon'ble Commission. Audited balance sheet for FY 2015-16 approved by CAG is in place and ready for the final True-up of 2015-16. A Chartered Accountant firm has been working on finalization of the pending Annual Accounts for FY 2016-17 and 2017-18 and the Company has hired a new Chartered Accountant firm for finalization of the pending Annual Accounts from FY 2018-19 onwards. The firms' work is affected due to the outbreak of covid-19 pandemic and they are trying their level best to complete at the earliest.

The accounts for FY 2016-17 are under audit and the Company has speed up this process and is expected to be completed by this month. For the remaining years, statutory auditors have been appointed by CAG in March, 2021 and the Company is in the process of finalizing the accounts in consultation with them. The Company is hopeful to clear all the back logs very soon. Once the same is finalized, the accounts will be presents before the Board of Directors of MSPDCL. CAG audit is required under the law and will be conducted and the Company will submit the same before the Hon'ble Commission as soon as it is completed.

The Chairman informed the two companies to speed up the finalization of the audited accounts as it adversely affects on the Trueing-up of the Companies and Commission may have to take the extreme cases of not further issuing of Tariff Orders, etc. as the financial health condition of the companies is not known by the Commission. And informed them to personally meet the concerned officials to speed up the process of obtaining audited accounts at the earliest.

MSPCL and MSPDCL are requested to file True up petition whenever audited statement is finalised in sequential manner for the year for which the account has been completed and not to wait till the account of pending years are completed. Which was agreed by the two companies.

ii) The up-to-date status of operation of franchisee system in rural areas and the modalities for billing & collection of revenue by MSPDCL.

The Company reported on this subject as the existing & upcoming status of Payment Counters for both prepaid and post-paid consumers are shown in the table below :-

Sl. No.	Regions	No. of MSPDCL Divisions	Pre-paid Payment Counters		Post-paid payment Counter
			Existing	Upcoming	Existing
1	Valley Regions	7	37	1-Tangjeng (Kumbi SD)	25
2	Hill Regions	11	22	1 (Mao Tadu-bi)	22
	Total	**18**	**59**	**2**	**47**

In this regard, MSPDCL has considered to implement the Rural Franchisee System with the help of Online Postpaid Billing system so as to improve its Billing and Collection Efficiency and make the distribution business commercially viable.

As of now, no agency has turn up to avail the above system. To implement the Franchise model of revenue collection, the prime requirement is the on-demand availability of updated consumer bills in digital format. It is important that the history of bills and payments made are available for the public to access easily. In short, for the consumers to trust the franchise system, security, transparency and robust systems are the primary requirements that are very important. This cancels out any room for manipulation of electric bills also.

In the pursuit of digitalization of consumer data, and streamlining the billing and collection process, MSPDCL developed and went live with MSPDCL e-Pay in Aug 2019. Since inception, the billing system has been undergoing a number of changes so that CMTR 3 data can be generated accurately at the click of a button. So far, MSPDCL has been successful in bringing prepaid and postpaid consumers on the same platform i.e. billing.mspdcl.info.

Mr. Nobert Khayi, Member supplemented on this matter that franchisee was to be implemented in Ukhrul district but could not do so due to technical mismatch.

Er. L. Pachuau, Chairman also stated that this was thought off so as to enable the Company to collect more revenues**.**

The Committee decided to see the proposed schemes being implemented by the Company and for review in the next meeting.

iii) MSPDCL report on the proposed submitted to the State Government regarding subsidy payment to specific category of consumers.

MSPDCL has requested to the State Government for the subsidy support of Rs 316.34 Crore based on the proposed ARR and proposed tariff for FY 2021-22.

The details to ascertain the subsidy quantum for FY 2021-22 is given below.

Sl. No	Particulars	Units	Amount
1	Net ARR	Rs. Crore	871.64
2	Revenue from Existing Tariff	Rs. Crore	421.68
3	Sale of Surplus Power	Rs. Crore	25.08
4	Total Sales Proceeds (2+3)	Rs. Crore	446.76
5	Revenue Gap(1-4)	Rs. Crore	424.88
6	State Government Revenue Subsidy	Rs. Crore	316.34
7	Net Un-met GAP(5-6)	Rs. Crore	108.54
8	Revenue from sale of power at proposed tariff (after tariff hike of 25.74%) (2+7)	Rs. Crore	530.22

MSPDCL received the State Government sanction in this regard vide its letter no. H. 20013/34/20-JERC, dated Aizawl, the 2nd December, 2020.

State Government approved the subsidy quantum without specifying the consumer category-wise subsidy. In the State of Manipur, the subsidy was approved under different budget head like power purchase cost, employee cost, A&G cost, R&M cost. So, the consumer category wise subsidy was not approved at all.

The Chairman informed the Meeting that on this issue the State Government has the final say and the Commission has to abide with it.

iv) The up-to-date status of calibrating different prepaid machines visa-vis functioning of data center at Guwahati.

The MSPDCL informed the Meeting that whenever a new tariff is approved by the commission, the new tariff is updated in the database of meter manufacturers (Secure meter, HPL meter & Genus Meter). Once the new tariff is updated in the meter manufacturers' database, the next prepaid recharge codes of all consumers will carry the updated tariff information. When this new recharge code is punched into the prepaid meter, the meter will update itself with the new tariff information. After this, consumers will be credited energy units according to the new tariff. The same process was followed to calibrate prepaid meters with the tariff for FY 2019-20.

The integration of all types of prepaid meters (viz. Secure Meters, HPL Meters and Genus Meters) on a single platform (https://billing.mspdcl.info, MSPDCL ePay) has been completed successfully. Prepaid vending operators at the counters have also started using the same integrated platform for prepaid vending since 2nd January, 2021.

Since the cost of outsourcing the web hosting services to an outsourced firm is substantially lower than the costs incurred for maintaining its own data center, MSPDCL is in the process of pulling out of the Guwahati Data center. Outsourcing the web hosting services instead of maintaining a data center also reduces the risks related to outage and calamities.

However, it is to be noted that the Guwahati Data Center or the new integrated platform are not related to calibration of prepaid meters/machines.

v) **Losses in Power Purchase Management,** MSPDCL may give report and up-to-date status on it.

a) The table below shows the allocation from different generating stations along with the fixed and Energy Charges **(figs based on the latest Energy Bills).**

Power allocation from various Generating Stations						
Name of the power Station	Cost of Power at state periphery			Capacity and Allocation		Day Ahead /Real time Surrender Possibility
	Fixed Cost (Rs/kWh)	Energy Charges (Rs/kWh)	Total Cost of Power (Rs/kWh)	Installed Capacity (MW)	State Share (MW)	
(A)	(B)	(C)	(D)=(B+C)	(E)	(F)	(H)
Kopili HEP	0.61	0.58	1.19	200	14.50	No
Khandong HEP	1.21	0.82	2.03	50	3.60	No
Ranganadi HEP	1.29	1.01	2.30	405	33.91	No
Kopili -II HEP	0.93	0.80	1.73	25	1.30	No
Loktak HEP	1.17	1.94	3.11	105	45.10	No
Palatana CCGT	1.53	1.79	3.32	726	42.00	Yes
Agartala GPP CCGT	1.35	1.71	3.06	135	10.50	Yes
Assam GPP CCGT	1.81	1.26	3.07	291	23.60	Yes
Pare HEP			5.00	110	9.30	No
Doyang HEP	2.36	2.70	5.06	75	5.90	No
BgTPP Thermal	2.70	2.99	5.69	750	56.20	Yes
*Baramura GTP	1.40	3.00	4.40	42	10.50	No

Note: Baramura GTP of TSECL, Tripura had recently revised the tariff with effect from Sep 2020 from Rs. 3.012/kwh to Rs. 4.40/kwh as per the Generation Tariff order of Tripura Electricity Regulatory Commission (Revised bill received on April 5, 2021). MSPDCL is looking into the possibility of Surrender of the Share from the Station.

While MSPDCL is utilising the best possible ways and means to minimise the cost of power purchase, there are certain restrictions which make it difficult such as:

1. **Hydel v/s thermal (Gas or Coal Based) plants:** While thermal plants have the option of real time surrender / day ahead drawal limitations, hydel plants do not offer such temporary withdrawals. Also, only allocations from Central Generating Stations (CGS) can be temporarily withdrawn.

2. **Withdrawal done based on Merit Order rating:** Based on the cost of power, merit order ranking is done. NTPC, BGTPP has the lowest rank in the merit order and a letter has been sent for the surrender of Unit II and III to the Ministry of Power before the time of Commercialisation of the Station. But due to non-availability of any willing buyer States, share of Unit II and III has not been deducted from Manipur.

3. **Fixed Cost applicable for surrendered quantum:** Even if the State surrendered the unused quantum, fixed cost of the respective Stations are still borne by the State, unless the surrendered quantum is requisitioned by another State / beneficiary. The fixed cost addition from the Station, escalates the per unit cost as the energy drawn will be lower than the normal allocations.

4. **Cases of allocation of withdrawn share:** To maintain the technical minimum of the Station **(55% of the MCR-Maximum Continuous Rating or Installed Capacity for Coal fired Stations)**, withdrawn share of the costly stations such as BGTPP are being allocated back to the State.

5. **Timing of Sale of Power on Energy exchange:** As most of the unused power are available in the off-peak timings, price for such power on the Energy Exchange is generally lower than the price on the peak timings. Thus, sale of power during such timings generates lower revenue.

Measures undertaken for bringing down the Power Purchase cost:

a) **Meeting with Ministry of Power for bringing down the Power Purchase Cost of BGTPP (Bongaigaon) of NTPC:** An Expert Group with dignitaries from Ministry of Power, CEA, Ministry of Coal, Railways etc have been constituted to discuss the matter of the high-Power Purchase Cost of BGTPP. A meeting on 01-03-2021 under the Chairmanship of Hon'ble Minister of State (Independent Charge) of Power and NRE to discuss the Report of Expert Group constituted to work out possible reduction in the cost of power from Bongaigaon TPP of NTPC Ltd. to North Eastern States was taken up.

   In the meeting, it was decided that:

   1 **Reduction of Energy Charge:** Coal Sources of the BGTPP plant will be optimised and shifted from BCCL and NECL to CCL with a saving of Rs. 0.57/kwh on the Energy Cost.

   2 **Reduction in Fixed Charge:** Up to reduction of Rs.0.28/Kwh through spreading of depreciation over the useful life (from 10 years to 25 years) has been decided in the meeting.

   3 **Real Time Management of Power Demand and Supply** with coordination of SLDC, Manipur: With the introduction of Real Time Market of the Indian Energy

Exchange (IEX), buy / sell bids are monitored on a Real Time Basis and demand / supply gap of the Utility is matched more effectively as compared to previous year.
Intervention required for mismatch in purchase of power at higher rate and sale of power at lower rate in Power Exchange:

a) **Introduction of Time of Day (ToD) tariff:** During the peak demand of Manipur, the Market Clearing Price (MCP) of the Power Exchange is higher than the Market Clearing Price (MCP) during off peak hours. Manipur demand as on date ranges from 70 MW during off-peak and upto 250 MW during peak hours. The power purchased from the Exchange during the peak hours and sale of power during off-peak hours lead to higher purchase rate and lower sale rate.

In order to solve this issue, Time of Day (ToD) tariff where higher tariff rate during peak hours and lower tariff during off-peak hours may be implemented with suggestions and advice of the Hon'ble Commission to even out / flatten the demand / supply curve.

Curbing the State Demand during Peak Hours: Demand may be curbed during the peak hours so that higher purchase from the Power Exchange may be avoided.

vi) **Increase of annual closing outstanding dues and collection of outstanding dues** (vide Agenda No. 5 of previous meeting minutes): Action taken report has not been received by the Commission although it was decided in the last meeting to be submitted quarterly. MSPDCL may report up-to-date status for further deliberation.

OUTSTANDING ENERGY CHARGES:
MSPDCL (Manipur State Power Distribution Company Limited) acknowledges the concern that there is high risk of loss due to non-recovery of huge outstanding energy charges.
In this matter, the company would like to highlight the following facts and figures that are presenting a challenge in the smooth recovery of this high outstanding dues:

STATUS OF OUTSTANDING DUES:
As per the Annual Provisional Financial Statement of Manipur State Power Distribution Company Limited (MSPDCL), the total Outstanding balance of energy charges for the FY 2013-14 to FY 2020-21 is shown in the below Table-I.

Table – I (Yearwise increase in outstanding dues) (Rs. in Crores)

Year	Outstanding Dues total	Increase in Outstanding Dues (Rs.Crore)	Present Status on Finalisation of Accounts
2013-14 (Base Year)	**425.73**	**-**	**Audited**
2014-15	**437.43**	**11.69**	**Audited**
2015-16	**446.29**	**8.85**	**Audited**
2016-17	470.29	24 (Provl. Figure)	(Finalized data by company submitted to statutory

Year	Outstanding Dues total	Increase in Outstanding Dues (Rs.Crore)	Present Status on Finalisation of Accounts
			auditor for their observations)
2017-18	495.66	25.36 (Provl.)	(Finalisation under process)
2018-19	526.90	31.24 (Provl. Figure)	(Under Internal Audit process)
2019-20	567.40	40.50 (Provl. Figure)	(Under Internal Audit process)
2020-21	543.07	-24.33 (payment of Rs. 81.29 Cr. by State Govt. Deptts.)	**Provisional Figure** (Under Internal Audit process)

The increase in the outstanding dues over the years is mainly due to huge State Government Department's debt.

B. <u>LEGACY DEBT (2013-14)</u>

Prior to 2014-15, there were serious issues, which were not addressed leading to accumulation of outstanding dues. The issues are as follows:

1. **<u>Erratic Power Supply during the period of 2007 to Mid-2014:</u>**

Power Supply in Manipur was very erratic till mid-2014. Following the unbundling of the erstwhile Electricity Department, Government of Manipur into Manipur State Power Distribution Company Limited (MSPDCL) and Manipur State Power Company Limited (MSPCL) in February, 2014, power supply starts improving from the later half of 2014.

During the period of starting 2007 till 2013, the actual power supply available to consumers was just about 4-5 hrs/day. Over and above this, there were instances of only alternate days of power supply in the outskirt areas of Imphal and the hill Districts of Manipur.

2. **<u>Inaccurate Billing:</u>**

a. The tariff of consumption of electricity since 2002 to 2010 was largely based on flat billing and as **<u>per the Manipur Gazette No.150 dated 16th August, 2002 (Friday)</u>** since extensive Post-Paid metering could not be done due to insufficient budgetary provision and man-power shortages.

b. As all data were entered manually there was inaccuracy in the actual sale and billing of energy. Even though post-paid meters were installed at the premises of the consumers, 50% - 60% of these meters were defective. This led to flat billing of consumers though they were metered consumers.

c. **The higher rate based on the flat electrical tariff of that time coupled with the erratic power supply highly de-motivated consumers to pay their electrical dues leading to slow accumulation of outstanding dues.**

3. **No improvement in Power Supply till end of FY 2014-15:** Joint Electricity Regulatory Commission (JERC), Manipur and Mizoram publishes the Tariff Order along with a new Tariff Structure for Manipur starting FY 2010-11 but as the power supply in the State could not be improved, collection of outstanding dues from defaulting consumers could not be effective till the later period of FY 2014-15.

4. **Irregular Distribution of Bills:** Distribution of bills was also a huge issue during the period mentioned in point no. 2(a). Due to low manpower of the Electricity Dept., Bills were not prepared timely which led to non-issuance of bills in proper billing cycle. However, surcharges were always carried forward to the next billing cycle even though bills were not issued on time. This led to huge accumulation in the outstanding dues.

C. MEASURES TAKEN UP BY MSPDCL TO REDUCE OUTSTANDING DEBTS

1. **Prepaid Metering and Surcharge Collection through Web-based billing system (billing.mspdcl.info)**

   Ever since the erstwhile Electricity Department, Government of Manipur was unbundled, Manipur State Power Distribution Company Limited (MSPDCL) has been vigorously installing Prepaid Meters in the premises of the consumers for revenue collection and growth. With the use of prepaid meters coupled with improved technology for consumer data indexing, Web-based billing system were implemented. After completion of 100% Prepaid/Smart/Postpaid Metering in all the premises of the consumers and after replacement of faulty meters, and upon complete migration of all consumer details into the Web-based billing system, MSPDCL may be able to recover some of the outstanding dues against defaulting consumers.

   To address the rise in the consumer base and its complexity in energy billing, work order for supply and installation of 2 Lakh Prepaid meters is already issued on 19th December, 2020.

1. **Other measures taken up by MSPDCL**

   MSPDCL has been conducting raids against theft / by-passing / unauthorized use of electricity at the premises of consumers. On coming across consumers indulging in theft / by-passing / unauthorized use of electricity, either of the following three is imposed which is also in line to the Indian Electricity Act, 2003 such as:

   A. The power supply to the premises of such consumer is cut off till the outstanding dues are cleared.

   B. Penalty is imposed to the guilty consumer.

   C. FIR is made against the guilty consumer at the nearest Police Station within 24 hrs of the raid.

MSPDCL is taking up these raids vigorously and in FY 2020-21, 8 FIRs were lodged out of the 604 theft cases. A report on the raids conducted by MSPDCL from FY 2015-16 to FY 2020-21 (upto Jan, 2021) is given below: -

Financial Year	Total Number of cases where inspection was carried out (nos.)	Total Number of cases - Theft of electricity was detected (nos.)	Total no. of cases where FIR has been lodged (nos.)	Total no. of cases settled (nos.)	Total no. of pending cases (nos.)
1	2	3	4	5	6
2015-2016	10,173	976	0	844	132
2016-2017	21,007	622	372	565	57
2017-2018	27,043	920	117	742	178
2018-2019	68,230	682	31	657	25
2019-2020	2,005	461	45	297	164
2020-2021	9,912	604	8	484	120
TOTAL	1,38,370	4,265	573	3,589	676

Miss H. Lalthanmawii, Member also suggested to take intervention of Lok Adalat for collection of outstanding bills from consumers. The MSPDCL can approach the Government on this issue.

vii) MSPDCL may report the up-to-date status of outstanding dues of power purchase bills (vide Agenda No.6 of previous meeting minutes).

1. The upto date outstanding Power Purchase bill is given below for information of honourable SAC members.

PERIOD UNDER REPORT: - APRIL 2020 TO MARCH 2021

SL. No	Name of PSU/ Govt. Undertaking	Outstanding dues as on 31.03.2020 (Rs. Lakh)	Surcharge levied during the period (Rs. Lakh)	Total bill served in the period (Rs. Lakh)	Amount paid in the period (Rs. Lakh)	Closing outstanding as on 31.03.2021 (Rs. Lakh)
1	2	3	4	5	6	7 (3 to 6)
A	NEEPCO	3,867	397	12,018	13,297	2,986
B	NTPC	2,801	410	13,771	12,647	4,335
C	NHPC	627	75	5,825	3,984	2,543
D	OTPC	1,589	225	9,449	8,348	2,915
E	PGCIL	2,264		6,689	6,793	2,161
F	TSECL / TPGL	1,253		1,149	1,506	896
G	NERLDC	884		283	1,026	142
	Total	**13,289**	**1,108**	**49,190**	**47,606**	**15,978**

2. While MSPDCL acknowledges that due to late payment of Power Purchase Bills, surcharges are incurred which ultimately increased the payment burden of MSPDCL. MSPDCL uses the following incomes / receipts from Govt. The following issues are being faced by MSPDCL in timely payment of Power Purchase Bills:

ii. **Untimely receipt of Power Purchase Subsidy from State Govt.:** While every effort for timely payment is done by transferring of revenue generated by

MSPDCL from sale of power to MSPDCL consumers, subsidy support from the State Govt. is received late on certain occasions thus delaying the payment of bills.

iii. **Lower tariff of MSPDCL compared to the tariff from Central Generating Stations:** The power tariff from Central Generating Stations have recovered their revised tariff structure as and when approved by CERC by passing on supplementary bills to MSPDCL, whereas MSPDCL does not have any definite means to recover this add on cost from its consumers. This widens the gap between cost of power purchase v/s the payment of bills by MSPDCL.

3. The actual late payment surcharge after separating the surcharge cost from the principal bills of Generators such as – NEEPCO, NTPC, NHPC and OTPC is Rs. 11.08 crore as on 31-03-2021. This is an added burden of MSPDCL. Unless MSPDCL is supported in generating more revenue, the surcharge issue will be a big burden. Measures such as: -

i. Prevention of Electricity theft / unaccounted energy
ii. Increase in Tariff to raise the Average revenue Realisation to match the Average Cost of Supply.
iii. Cost Minimisation – such as allowing MSPDCL to surrender the costly power of NTPC BGTPS Unit II and III etc.

viii) **Case study of losses at 132kV level and 33kV level** (vide Agenda No.7 of previous meeting minutes): The Commission prepared formats for case study of 132kV and 33kV intra-state transmission lines under MSPCL and requested to select each of 5(five) lines of 132kV level and 33kV level and submit report for the period of 3(three) months (i.e. March- May, 2020). MSPCL has not submitted their report till date even after requesting them 3(three) times to submit it. MSPCL may submit their case study report in the meeting for further deliberation.

SLDC is compiling energy meter data submitted by Sub-station divisions of MSPCL. However, accurate calculation of actual loss at various voltage levels is ineffective due to incomplete installation of energy meters and defective meters. In view of the upcoming SAMAST scheme to be taken up by NERPC, MSPCL has dropped the idea of installation of new energy meters and rectification of old ones. Tender process and supply order for implementation of SAMAST scheme is in advance stage.

Based on the limited data available at our disposal, few transmission and sub-transmission lines as well as few 132/33kV and 33/11 kV substations are identified as sample element for loss estimation for the respective voltage level. Using these sample elements, total loss of 132kV and 33kV system is estimated at **8.895 %.** The estimation is based on available data of the specified elements averaged out over a period of one year (January to December 2019).

The MSPCL and MSPDCL has both stated that they need to further co-operate on this issue and that with the coming of SAMAST Projects, a better and clearer reading is expected very soon.

The chairman informed the Meeting that this is required to check the performances of the two companies and for checking the loop holes which will result in a dynamic and prosperous companies.

Both MSPCL and MSPDCL agreed to adopt intra-state transmission loss as 8.895% which included the losses at 33kV level and 132 kV level till new result of proper case study or till system metering is achieved. And the SAC agreed to it.

Agenda 3: Determination of ARR & Retail Tariff of MSPDCL for FY 2021-22 and ARR & Transmission Tariff of MSPCL for FY 2021-22.

As required by Sections 61, 62 and 64 of the Electricity Act, 2003 and as per the Multi Year Tariff (MYT) Regulations, the Manipur State Power Distribution Company limited (MSPDCL) has filed recently the revised ARR & Tariff Petition for the FY 2021-22 with the Commission and the same is now under vetting. Executive summary of the Petition has also been published in local newspapers for information of general public.

The basic data required for the determination of ARR and Retail Tariff are to be furnished by the MSPDCL in the form of a Petition as per the MYT Regulations, 2014. The Petition should have among others, three basic inputs namely actuals of last year, provisional of current year and projections for the ensuing year i.e. the year for which Tariff is required to be determined. These data has been compared with each other and checked for consistency and symmetry. The Commission finds it very difficult to proceed if data are incomplete or missing or inconsistent or the reasonability is not established. The Commission then calls for clarification or additional data from the petitioner. Thus, the Commission does a lot of analysis and data processing before the ARR is approved and corresponding Retail Tariff is determined.

While doing the exercise, the Commission also keeps as eye on the following provision under Section 61 of the Electricity Act, 2003, namely:

61 (c) The factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments.

(d) Safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner.

(e) The Principles rewarding efficiency in performance

(g) The Tariff progressively reflects the cost of supply of electricity

(i) The National Electricity Policy and Tariff Policy

The Manipur State Power Company limited (MSPCL) also, as required by the Act and MYT Regulations mentioned above, filed revised ARR and Transmission Tariff for the FY 2021-22 which is also under vetting. As per the above mentioned MYT Tariff Regulations, 2014, the Transmission ARR shall be recoverable as fixed monthly charges from all users of long-term transmission customers, based on share of transmission capacity in the total transmission capacity.

Currently, MSPCL has only one long term transmission customer which is the Distribution Licensee in Manipur. As such, MSPCL has to recover the entire transmission ARR as fixed monthly charges from MSPDCL.

Determination of ARR and Retail Tariff of MSPDCL for FY 2021-22

1. MSPDCL, a deemed licensee engaged in the distribution and retail supply of electricity in Manipur State, has filed before the JERC (M&M), Aizawl, the Aggregate Revenue Requirement (ARR) and Tariff application for FY 2021-22 for distribution and retail supply of electricity before JERC for M&M under section 62 of the Electricity Act, 2003 and as per the MYT Regulations, 2014 notified by the JERC (M&M) on 2nd February, 2021.

   The Hon'ble Commission admitted the Petition of MSPDCL and registered the Petition vide Petition (ARR & Tariff) No. 3 of 2021.

The summary of ARR for FY 2021-22 is tabulated below in detail:

(Rs. Crores)

Sl. No.	Particulars	Amount	As % to Total
A	**Expenditure**	**Rs.Crs**	**(%)**
1	Cost of power purchase	491.63	56.40%
2	Inter-State Transmission charges	83.06	9.53%
3	Intra-state Transmission charges	101.93	11.69%
4	SLDC & NERLDC Charges	1.52	0.17%
5	O&M Expenses	**145.97**	16.75%
	Employee Expenses	*116.43*	13.36%
	Repair & Maintenance Expenses	*19.44*	2.23%
	Administrative & General Expenses	*10.10*	1.16%
6	Depreciation	4.80	0.55%
7	Interest on Loan	36.27	4.16%
8	Interest on Working Capital	8.31	0.95%
9	Provision for bad debts	3.00	0.34%
	Sub-total of (A)	**876.49**	**100.56%**
B	Add: Return on Equity	1.95	0.22%
	Add: Income Tax	-	**0.00%**
	Sub-total of (B)	**1.95**	**0.22%**
C	**Gross ARR: C = (A+B)**	**878.44**	**100.78%**
D	**Less (Non-Tariff Income)**	6.80	0.78%
	Sub-total of (D)	**6.80**	**0.78%**
E	**Net Aggregate Revenue Requirement (C-D)**	**871.64**	**100.00%**
F	**Revenue from sale of Power (F) = (a + b)**	**446.76**	

Sl. No.	Particulars	Amount	As % to Total
	a) Retail Sales Revenue at Existing Tariff	421.68	
	b) Outside State Sales Revenue	25.08	
G	**Revenue Gap / Subsidy proposed (E – F)**	**424.88**	

2. **Distribution loss:**
   The distribution loss for FY 2021-22 has been projected at 21.05%.

3. MSPDCL proposed to cover the revenue shortfall partially through additional revenue of Rs.108.54 crs from proposed Tariff revision and thereby leaving a gap of Rs. 316.34 Crs for State Government Revenue subsidy consideration.

Sl.No	Particulars	Units	Without subsidy	With subsidy
1	Net ARR	Rs. Crore	871.64	871.64
2	Revenue from Existing Tariff	Rs. Crore	421.68	421.68
3	Sale of Surplus Power	Rs. Crore	25.08	25.08
4	Total Sales Proceeds	Rs. Crore	446.76	446.76
5	Revenue Gap	Rs. Crore	424.88	424.88
6	State Government Revenue Subsidy	Rs. Crore		316.34
7	Net Un-met GAP	Rs. Crore	424.88	108.54
8	Revenue from sale of power at proposed tariff	Rs. Crore	846.56	530.22
9	Unit revenue realisation at the proposed Tariff	Rs. / kWh	12.66	7.93
10	Average Tariff hike required - (7/2) x100	%	100.76%	25.74%

4. The existing Tariff & the proposed Category-wise Retail Supply Tariffs for FY 2021-22 is given below: -

Sl. No.	Category	Existing Tariff		Proposed Tariff		% increase in	
		Fixed Charge	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge	Energy Charge
	L.T Supply	**(Rs./Month)**	**(Rs/kWh)**	**(Rs./Month)**	**(Rs/kWh)**	**(%)**	**(%)**
1	**Kutir Jyothi**						
i)	All units (15 kWh/month)	25	2.00	25	2.00	**0.00%**	**0.00%**
2	**Domestic**						
i)	0-100 kWh/month	60	4.20	65	5.80	**8.33%**	**38.10%**
ii)	101-200 kWh/month	60	5.50	65	7.10	**8.33%**	**29.09%**
iii)	Above 200 kWh/month	60	6.40	65	8.20	**8.33%**	**28.13%**
3	**Commercial**						
i)	1-100 kWh/month	80	5.85	85	7.80	**6.25%**	**33.33%**

Sl. No.	Category	Existing Tariff		Proposed Tariff		% increase in	
		Fixed Charge	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge	Energy Charge
ii)	101-200 kWh/month	80	6.90	85	8.90	**6.25%**	**28.99%**
iii)	Above 200 kWh/month	80	7.45	85	9.30	**6.25%**	**24.83%**
4	**Public Lighting**	65	8.50	70	8.70	**7.69%**	**2.35%**
5	**Public Water works**	100	8.70	105	8.90	**5.00%**	**2.30%**
6	**Irrigation & Agriculture**	60	4.20	65	5.20	**8.33%**	**23.81%**
7	**Small Industry**	65	4.40	70	5.80	**7.69%**	**31.82%**
	H.T Supply	**Rs./kVA/ month**	**Rs./kVAh/ Month**	**Rs./kVA/ month**	**Rs./kVAh/ Month**	**(%)**	**(%)**
8	**Commercial**	100	8.10	105	9.60	**5.00%**	**18.52%**
9	**Public Water works**	100	8.30	105	8.50	**5.00%**	**2.41%**
10	**Irrigation & Agriculture**	100	4.40	105	4.60	**5.00%**	**4.55%**
11	**Medium Industry**	100	5.70	105	7.00	**5.00%**	**22.81%**
12	**Large Industry**	100	7.10	105	8.50	**5.00%**	**19.72%**
13	**Bulk Supply**	100	6.40	105	7.90	**5.00%**	**23.44%**

Summary of Existing and Proposed Wheeling charges for FY 2021-22

Sl. No.	Particulars	Units	At existing Tariff	At proposed Tariff
1	ARR for Wires Business	**Rs. Crs**	82.57	131.27
2	Energy available at Distribution periphery	**MU**	863.46	846.68
3	**Wheeling Charges**	**Rs./kWh**	**0.956**	**1.55**

After explanations on both the petitions by MSPDCL and MSPCL, an in-depth discussion was held.

Mr. S. Rishikumar Singh, Member stated that the tariff petition of MSPDCL proposals hike on irrigation and small industries is too high and to develop this crucial areas, lower tariff may be given to them.

Er. L. Manglem Singh, Member also stated that with changing development we need to forecast on areas of Power Managements including Tariffs like electric vehicles etc.
The Meeting agreed that a nominal hike in tariffs was agreed but not to cause burden to the consumers.

The Meeting ended at 2:15 pm with a vote of thanks from the chair.

Sd/- LALCHHARLIANA PACHUAU
Chairperson

Memo No. H. 11019/26/18-JERC/67 : Dated Aizawl, the 23rd April, 2021

Copy to:

1. Secretary to Hon'ble Chief Minister, Govt. of Manipur for kind information to the Hon'ble Chief Minister.
2. P.S. to Hon'ble Power Minister Govt. of Manipur for kind information to the Hon'ble Power Minister.
3. Secretary, Power Department, Govt. of Manipur for kind information and for taking necessary action on the Minutes of the Meeting.
4. All Members / Invitees of the State Advisory Committee for kind information and for taking necessary action on the Minutes of the Meeting.
5. Guard file.

List of Members and Participants attended the 21st Meeting of State Advisory Committee of Manipur

Date & Time : 15th April, 2021 (Thursday) 11:00 a.m.
Venue : Hotel Classic Grande, Dynasty Hall, Imphal.

Sl.No.	Participant Name	Designation & Organisation
MEMBERS		
1	Er. LalchharlianaPachuau	Chairperson, JERC (M&M)
2	Mr. L.Manglem Singh	Director, MANIREDA, Imphal, Manipur
3	Mr. T. Panmei	Joint Director, Agriculture Department
4	Mr. Nobert Khayi	Social Worker, West Phungreitang, Ukhrul
5	Mr. Rishikumar Singh	President, All Manipur Entrepreneurs Association
6	Mr. M. Brojen Singh	Kakchingwairi ThongamLeikai, Manipur
7	Dr. S. Birendra Singh	Rtd Director, NIT Imphal, Nambol Bazar, Bishnupur
8	Miss H.Lalthomawi	Advocate, Tipaimukh Road, HiangtamLamka, Manipur
SPECIAL INVITEES		
1	Mr. Ng. Subash Singh	Managing Director, MSPDCL
2	Mr. Th. Aton Singh	ED/Comml, MSPDCL
3	Mr. N. Sarat Singh	Managing Director, MSPCL
4	Er. H.Thanthianga	Assistant Chief (Engineering), JERC (M&M)
4	Mr. Richard Zothankima	Assistant Secretary, JERC (M&M)
5	Mr. H. Shanti kumar	ED(Tech), MSPCL & MSPDCL
6	Miss Khoisnam Steela	DGM (Commercial) SLDC, MSPCL
7	Miss Laishram Ritu	DGM (Sys. Opt), SLDC, MSPCL
8	Mr. Satadru Chakraborty	Consultant, MSPDCL
9	Mr. Hijam Romen	Manager, MSPDCL
10	Mr. Mutum Binod	AM – IT, MSPDCL
11	Mr. Abdul Hamid	DM Prepaid, MSPDCL
12	Mr. Bikram Sharma	DM (IT)
13	Mr. N. Khagemba	GM (F&A)
14	Mr. Th. Satyajit Singh	DM (Power Purchase) MSPDCL
15	Mr. M. Rabi Singh	GM Commercial
16	Mr. O. Kartik Singh	GM (Circle No. 1)
17	Mr. Ch. Rajbabu Singh	GM Circle No. III
18	Mr. S. Priyananda Singh	GM (T)/MSPCL
19	Mr. Ranjan Wahengbam	Manager
20	Mr. Madha Dalal	Consultant of MSPCL
21	Miss I. Roji	DM (Elect)
22	Miss M. Ashalata	DGM(Tech)
23	Mr. Murtmaljhar Sheikh	DM (Elect)
24	Mr. N. Jasobanth Singh	DGM, MSPCL
25	Mr. H. Debeswar Singh	DGM, MSPCL
26	Mr. A. Robin Singh	DGM, MSPCL
27	Mr. Satyabrata Singh	DGM, MSPCL
28	Mr. Kh. Umakanta Singh	Dy. Manager, MSPCL
29	Mr. B. Ibomcha Singh	GM – EC -II
30	Mrs. N. Ashapurna	C.C.O, JERC (M&M)

ANNEXURE - II

LIST OF PERSONS ATTENDED PUBLIC HEARING ON
TARIFF PETITION FOR FY 2021-22 IN RESPECT OF MSPDCL, MANIPUR

Venue : Hotel Classic Grande, Dynasty Hall, Imphal, Manipur.
Date & Time : 16th April, 2021 (Friday) from 10:30 a.m. to 12:30 p.m.

Sl.No.	Participant Name	Designation / Profession
1	Mr. LALCHHARLIANA PACHUAU	Chairperson, JERC (M&M)
2	Mr. NG. SUBHAS CHANDRA SINGH	Managing Director, MSPDCL
3	Mr. H. SHANTIKUMAR SINGH	Executive Director, (Tech.), MSPDCL
4	Mr. TH. ATON SINGH	Executive Director, (Comml.), MSPDCL
5	Mr. H. THANTHIANGA	Asst. Chief (Engg.), JERC (M&M)
6	Mr. RICHARD ZOTHANKIMA	Asst. Secy., JERC (M&M)
7	Mr. K. HARI PRASAD	Consultant, JERC (M&M)
8	Mr. TUANGKANSON	D.G.M., Churachandpur
9	Mr. O. KARTIK SINGH	G.M./E.C.-I
10	Mr. M. RABI SINGH	G.M., Commercial
11	Mr. SATADRU CHAKRABORTY	Consultant, MSPDCL
12	Mr. SANASAM CHAOBA SINGH	President, AMPCA
13	Mr. KENTHOUJAM SANATAMBA	Gen. Secy., AMPCA
14	Mr. TH. SAITAJEET SINGH	D.M., MSPDCL
15	Mr. A. HAMID	D.M. (Prepaid)
16	Mr. TH. JIBONKUMAR	G.M. (Project)
17	Mr. V. HRANGCHAL	D.G.M., Phaizawl
18	Mr. H. JITEN SINGH	Manager, Commercial
19	Mr. KH. TARUN KUMAR	D.G.M., IED-IV
20	Mr. TH. IBOMCHA MEITEI	D.G.M., Kakching
21	Mr. N. BIRJIT	D.G.M., IED-III
22	Mr. N. RAMESH SINGH	Computer Operator (Commercial)
23	Mr. L. SURAJ SINGH	A.M. (F&A), Corporate Commercial

MSPDCL - Expected Revenue in FY2021-22 from Approved (subsidised) Tariffs v										
Sl. No.	Category	Consumers	Contracted Load (in kW)	Annual energy Sales (in MU)	Sales/ Consumer /Month (in kWh)	Revised Tariff		Revenue /Year		
						Fixed Charge (Rs/kW/ kVA)	Energy charge (Rs./kWh/ kVAh)	Total Fixed Charges (in Rs lac)	Energy charge /Consr (in Lac)	T en char Rs
1	2	3	4	5	6	7	8	9	10	
1	**Domestic LT**									
1)	**Kutir Jyoti**					per connection				
	All units	**15907**	**7367**	**4.10**	**21.48**	**25**	**2.10**	**47.72**	**539.15**	
2)	**Normal Domestic**									
i)	0 - 100 kWh	405447	**586239**	315.51	64.85		5.10		3910.46	158
ii)	101 - 200 kWh	37812	**84364**	90.09	198.55		5.95		13022.13	49
iii)	Balance >200 kWh	14170	**41296**	35.68	209.83		6.75		13917.79	19
	Sub Total (2)	**457429**	**711899**	**441.28**		**65**		**5517.22**	**30850.38**	**227**
	Total Domestic LT	**473336**	**719266**	**445.38**				**5564.94**	**31389.53**	**228**
2	**Non-Domestic/Commercial**									
a)	**Low Tension**									
i)	0 - 100 kWh	17130	**43407**	20.56	100.00		6.55		7790.00	13
ii)	101 - 200 kWh	2534	**9416**	6.09	200.28		7.25		16479.26	4
iii)	Balance >200 kWh	4158	**36435**	32.35	648.35		7.65		57523.86	23
	Commercial- LT	**23822**	**89258**	**59.00**		**85**		**905.97**	**81793.12**	**41**
b)	**Commercial HT**	767	21836	19.98	2170.80	**105**	8.75	304.50	251692.20	19
	Total Commercial	**24589**	**111094**	**78.98**	**267.65**			**1210.47**	**333485.32**	**60**
3	**Public Lighting**	**466**	**1208**	**3.86**	**690.27**	**70**	**9.55**	**10.09**	**78380.16**	**3**
4	**Public Water Works**									
a)	Low Tension - PWW	38	480	1.29	2828.95	105	9.80	6.02	329572.68	
b)	**High Tension - PWW**	194	17055	23.99	10304.98	105	9.50	237.83	1291557.49	25
	Total PWW	**232**	**17535**	**25.28**	**9080.46**			**243.85**	**1621130.17**	**20**
5	**Irrigation & Agri**									
a)	Low Tension - Irr & Agl	48	370	1.15	1996.53	65	4.55	2.87	108311.76	
b)	**High Tension - Irr & Agl**	27	739	0.75	2314.81	105	4.75	10.31	145704.42	
	Total Irr. & Agl LT	**75**	**1109**	**1.90**	**2111.11**			**13.18**	**254016.18**	
6	**Industrial**									
a)	LT - Small/Micro	**2369**	19267	19.47	684.89	70	4.85	160.88	39552.40	9
b)	HT - Medium Indst	**86**	4538	3.92	3798.45	105	7.20	63.28	358320.46	3
c)	HT - Large Indst	**38**	12070	8.15	17872.81	105	8.80	168.31	2063316.62	7
	Total Industrial	**2493**	**35875**	**31.54**	**1054.29**			**392.47**	**2461189.48**	**20**
7	**Bulk Supply HT**	**410**	**51525**	**90.19**	**18331.30**	**105**	**8.80**	718.49	2101989.07	80
	Grand Total	**501601**	**937612**	**677.13**	**112.49**			**8153.49**	**6881579.91**	**420**

MSPDCL- Expected Revenue from Full Cost Tariff in FY 2021-22 (Without Subsidy) w.e.

Sl. No.	Category	Consumers	Contracted Load (in kW)	Annual energy Sales (in MU)	Sales/ Consumer /Month (in kWh)	Revised Tariff: Fixed Charge (Rs/kW/ kVA)	Revised Tariff: Energy charge (Rs./kWh/ kVAh)	Revenue /month: Total Fixed Charges (in Rs lac)	Revenue /month: Energy charge /Consr (in Lac)	Revenue /month: Total energy charge (i Rs lakh
1	2	3	4	5	6	7	8	9	10	11
1	**Domestic LT**									
1)	**Kutir Jyoti**					**per connection**				
	All units	**15907**	**7367**	**4.10**	**21.48**	**25**	**8.78**	**3.98**	**188.51**	**29.9**
2)	**Normal Domestic**									
i)	0 - 100 kWh	405447	**586239**	315.51	64.85		9.56		619.68	2512.4
ii)	101 - 200 kWh	37812	**84364**	90.09	198.55		10.17		1957.84	740.3
iii)	Balance >200 kWh	14170	**41296**	35.68	209.83		10.70		2077.74	294.4
	Sub Total (2)	**457429**	**711899**	**441.28**	**80.39**	**65**		**462.73**	**4655.26**	**3547.1**
	Total Domestic LT	**473336**	**719266**	**445.38**	**78.41**			**466.71**	**4843.77**	**3577.1**
2	**Non-Domestic/Commercial**									
a)	**Low Tension**									
i)	0 - 100 kWh	17130	**43407**	20.56	100.00		11.21		1120.93	192.0
ii)	101 - 200 kWh	2534	**9416**	6.09	200.28		11.47		2270.84	57.5
iii)	Balance >200 kWh	4158	**36435**	32.35	648.35		11.52		7434.17	309.1
	Commrl- LT	**23822**	**89258**	**59.00**	**206.37**	**85**		**75.87**	**10825.94**	**558.6**
b)	Commercial HT	767	21836	19.98	2170.80	**105**	10.86	25.48	26192.77	200.9
	Commercial (LT&HT)	**24589**	**111094**	**78.98**	**267.65**			**101.35**	**37018.707**	**759.5**
3	**Public Lighting**	**466**	**1208**	**3.86**	**690.27**	**70**	**13.36**	**0.85**	**9220.48**	**42.9**
4	**Public Water Works**									
a)	Low Tension - PWW	38	480	1.29	2828.95	105	13.08	0.50	37006.86	14.0
b)	**High Tension - PWW**	194	17055	23.99	10304.98	105	11.52	19.90	131915.02	255.9
	Total PWW	**232**	**17535**	**25.28**	**9080.46**			**20.40**	**168921.88**	**269.9**
5	**Irrigation & Agri**									
a)	Low Tension - Irr & Agl	48	370	1.15	1996.53	65	10.29	0.24	20538.32	9.8
b)	**High Tension - Irr & Agl**	27	739	0.75	2314.81	105	9.25	0.87	23801.24	6.4
	Total Irr. & Agl LT	**75**	**1109**	**1.90**	**2111.11**			**1.11**	**44339.56**	**16.2**
6	**Industrial**									
a)	LT - Small/Micro	**2369**	19267	19.47	684.89	70	11.15	13.49	7635.86	180.8
b)	HT - Medium Indst	**86**	4538	3.92	3798.45	105	10.24	5.29	43213.40	37.1
c)	HT - Large Indst	**38**	12070	8.15	17872.81	105	10.56	14.08	209774.33	79.7
	Total Industrial	**2493**	**35875**	**31.54**	**1054.29**			**32.86**	**260623.59**	**297.7**
7	**Bulk Supply HT**	**410**	**51525**	**90.19**	**18331.30**	**105**	**11.55**	**60.11**	**235196.27**	**964.3**
	Grand Total	**501601**	**937612**	**677.13**	**112.49**			**683.38**	**760164.26**	**5928.0**

JOINT ELECTRICITY REGULATORY COMMISSION

FOR MANIPUR AND MIZORAM

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